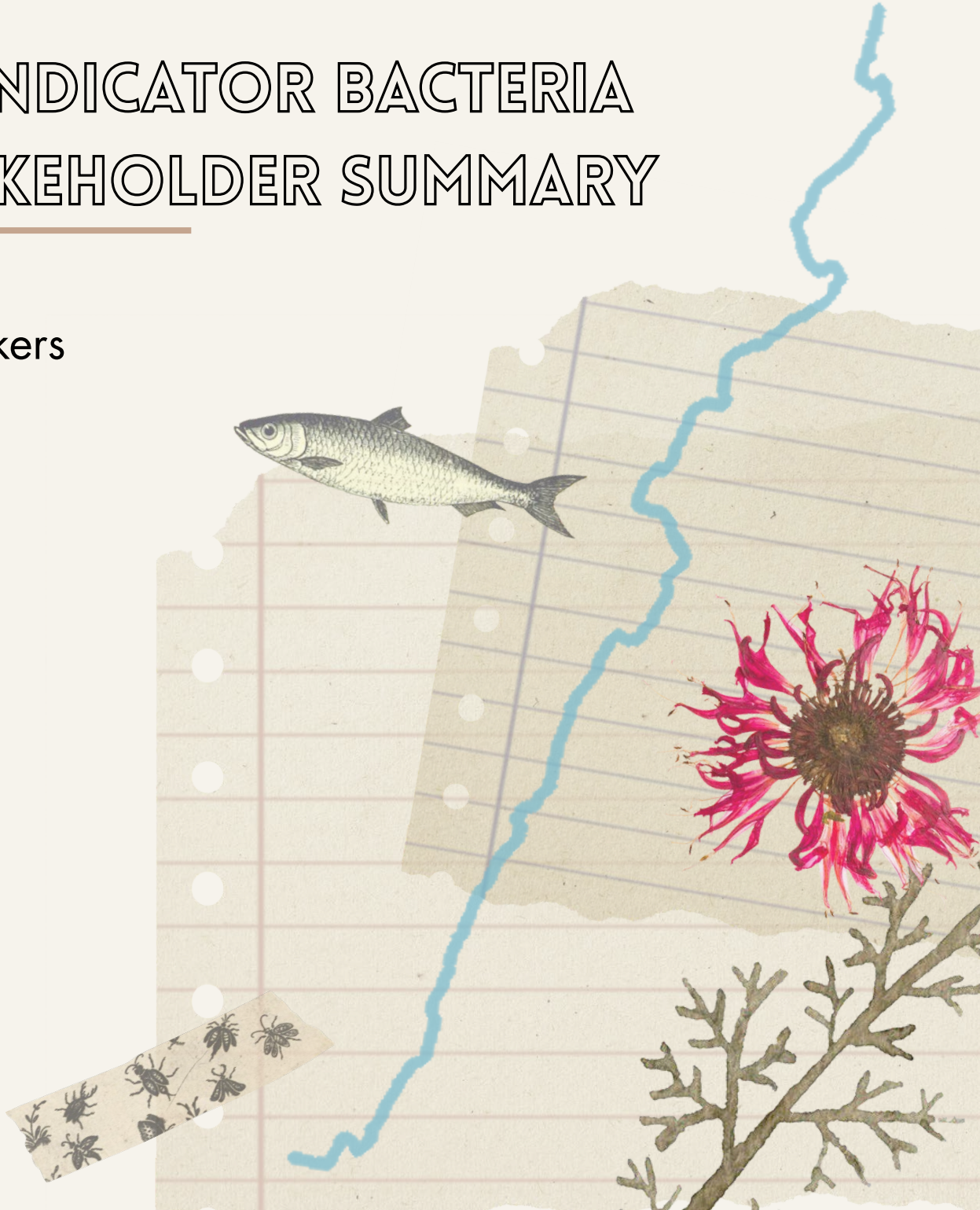
2025 FECAL INDICATOR BACTERIA ANNUAL STAKEHOLDER SUMMARY

Saw Mill River &
Hudson River in Yonkers



SARAH LAWRENCE COLLEGE

CENTER FOR THE URBAN RIVER AT BECZAK

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2025 FECAL INDICATOR BACTERIA ANNUAL STAKEHOLDER SUMMARY

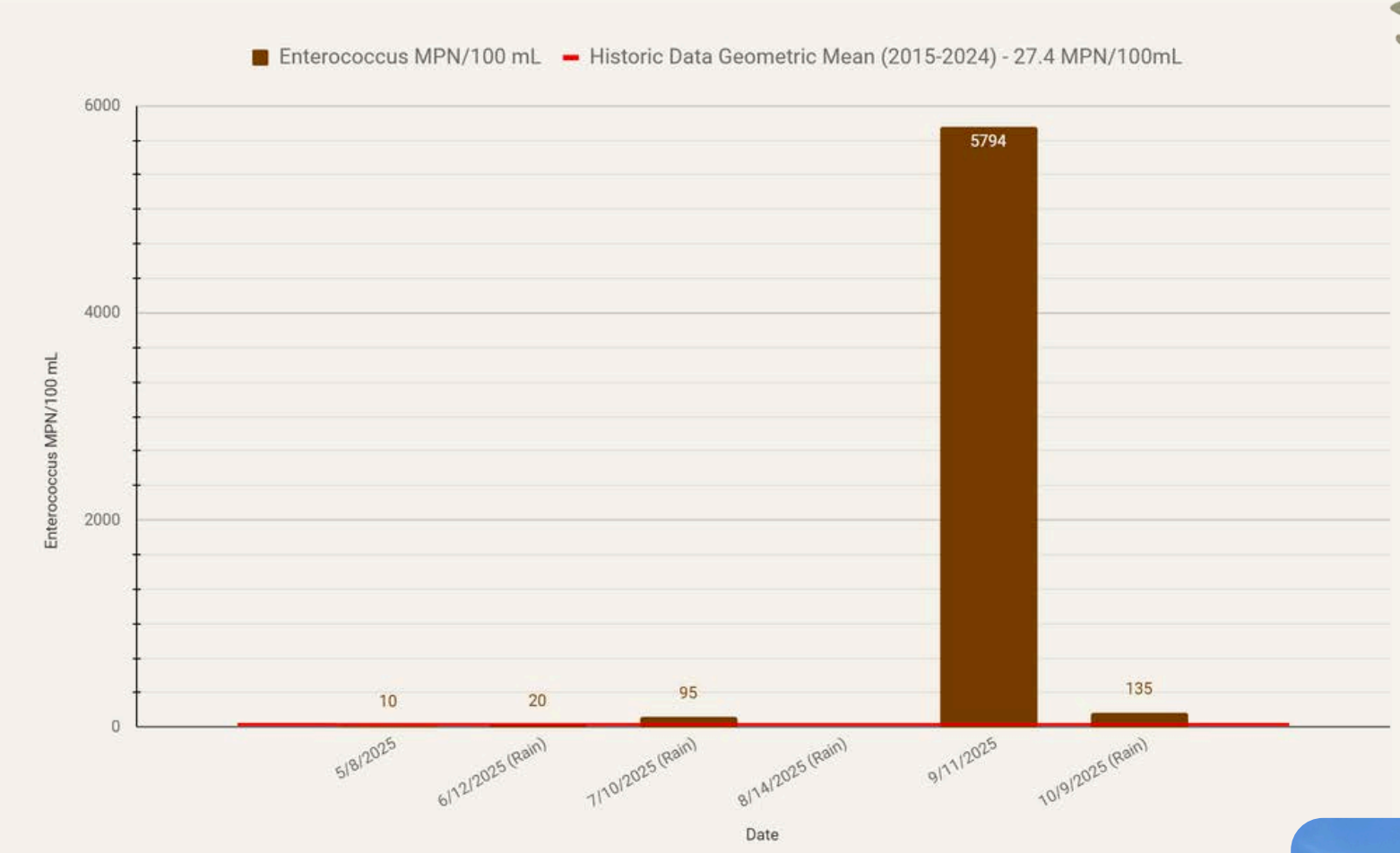
Since 2015, the Sarah Lawrence College Center for the Urban River at Beczak has conducted dedicated research with a focus on tracking excess fecal indicator bacteria along the Yonkers Hudson River shoreline and the length of the Saw Mill River. Almost 10 years of data (no data was collected in the year 2020 due to safety concerns) have indicated which locations along the river are in need of higher water quality protections.

In 2024, the Westchester Coalition for Clean Water was formed by groups of informed organizations who ultimately wish to amplify the concerns of water quality impacting Westchester County and the City of Yonkers to environmental regulators and policy makers. This coalition and many of the efforts put forth to ensure safer waters are all rooted in local community. All interested stakeholders can readily access the data and summaries aimed to support the readers learning. Anyone interested in participating in the sample collection process are engaged in proper collection training. Persons who express excitement about the processing of the samples are welcomed into our lab space and take part in the procedure. This is all done with a goal of fostering a sense of ownership of local environment and putting community at the forefront of education on this issue. As we continue to build an informed community, we are able to work together to create safer environmental spaces.

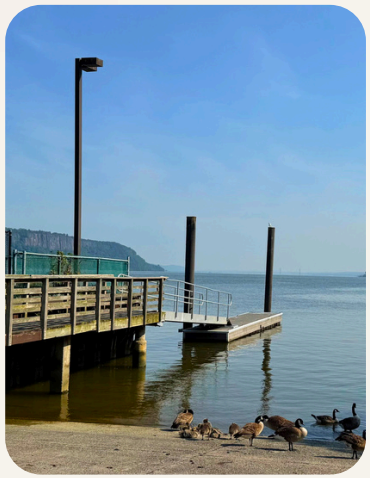
We hope you enjoy this in-depth look at the 18 sampling sites part of the fecal indicator bacteria research.

Katie Lamboy, Environmental Educator and Water Quality Specialist
Ryan Palmer, Director

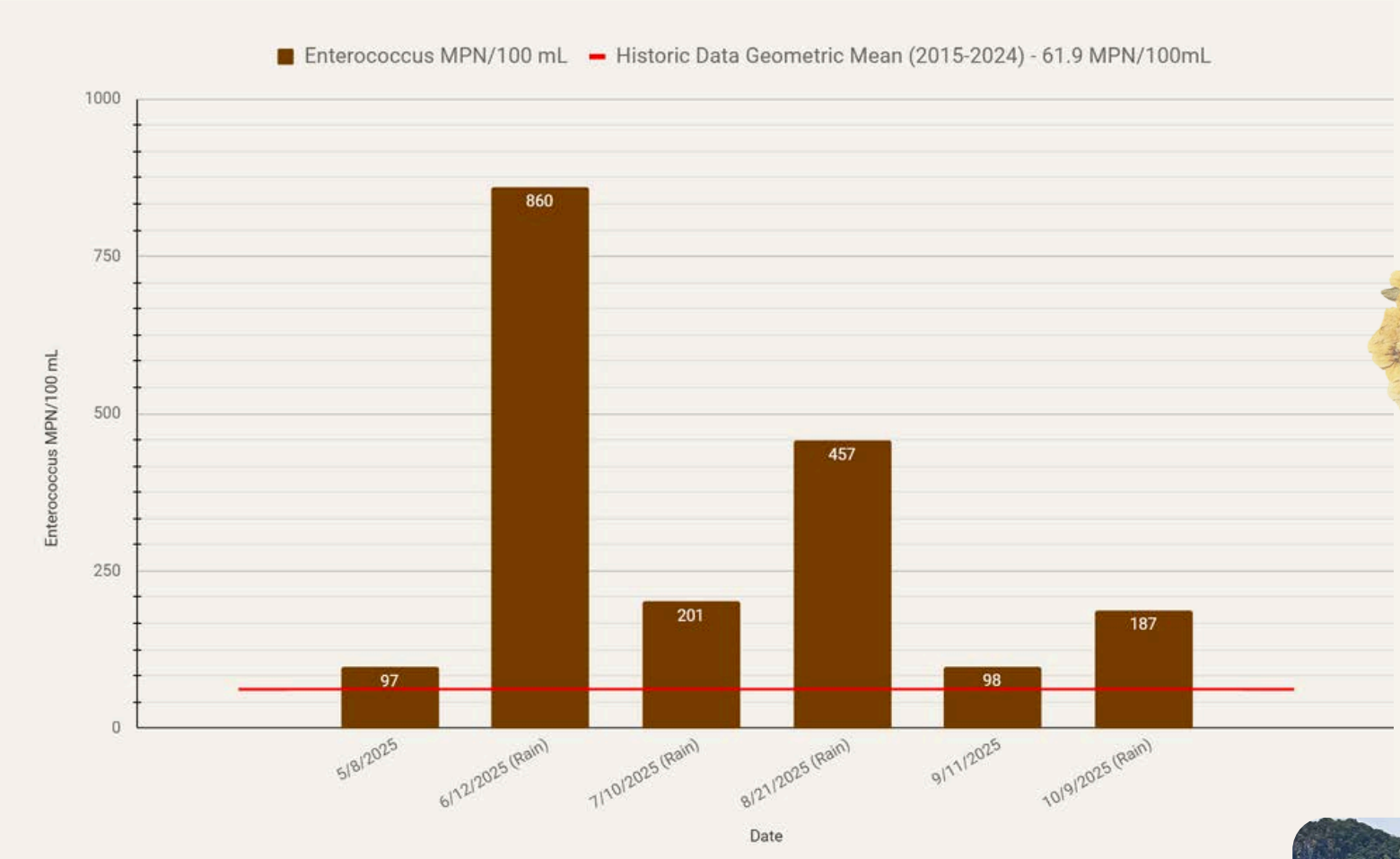
JFK MARINA: YONKERS



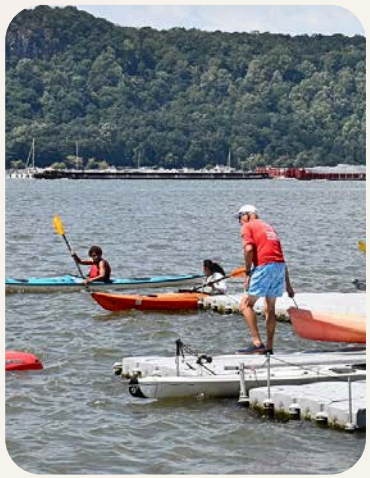
This Hudson River sampling site located in the northwest Yonkers area is home to a small recreational park and boat launch that is heavily used throughout the warm weather season. Over the 10 year period of this study, this site has consistently met the EPA standard for fecal indicator bacteria (enterococcus) levels with a historic geometric mean of 27.4 MPN/ 100 mL of sample. This site, sampled via a floating dock by long time volunteer Diane M., has a consistent community of Canada Geese present along and within the shoreline. Their presence has rarely had impact on the fecal indicator bacteria results which can detect upwards of 6 different bacterial species of the enterococcus genus - including from bird species. Although there were no reports of geese sighted on the morning of sampling, the spike of bacterial counts on 9/11/2025 could be caused by their general presence before the sample was taken.



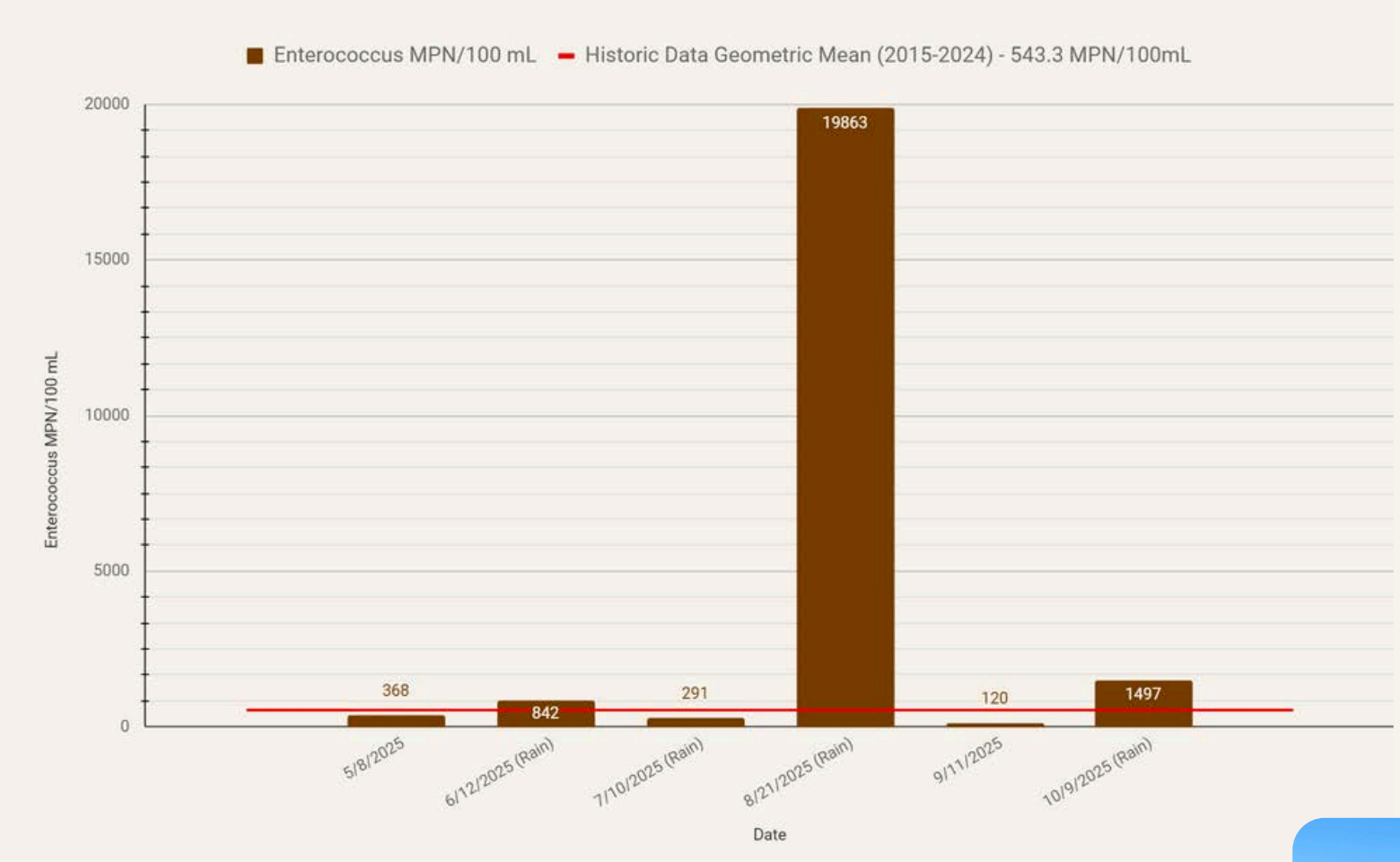
YONKERS PADDLING AND ROWING CLUB: YONKERS



The Yonkers Paddling and Rowing Club sampling location has been sampled since 2011 and was a catalyst for bacterial sampling on local waterways in the Yonkers area. The floating dock present at the sampling location hosts paddling opportunities for the public and club members and is the main sampling location for the CURB Blue Team students. Although this location is on the Hudson River, it often faces many bacterial challenges as its location is next to the North Yonkers Pump Station and sewage overflow pipe. This site is consistently impacted by rain events, often seeing an elevation of bacterial levels at rain fall amounts exceeding 0.10". CURB research has determined that the Hudson River is usually able to return to safe levels of fecal indicator bacteria 24-48 hours after its initial impact. This information is important for communities to stay safe while enjoying the Hudson River. For those visiting, a welcome board is updated weekly at the entrance of the park with the conditions of the river in the summer months.

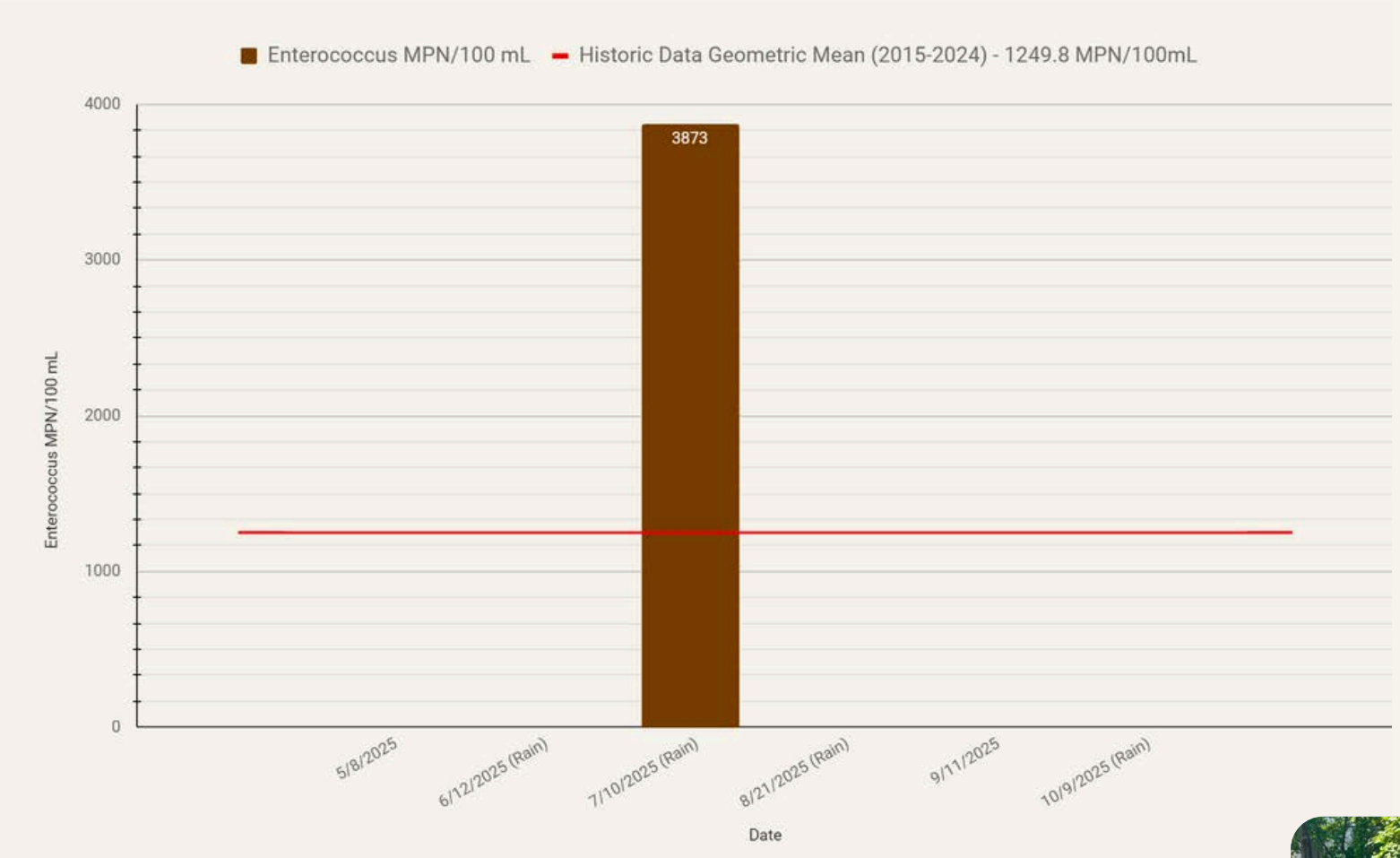


SMR DAYLIGHTING - VAN DER DONCK PARK: YONKERS



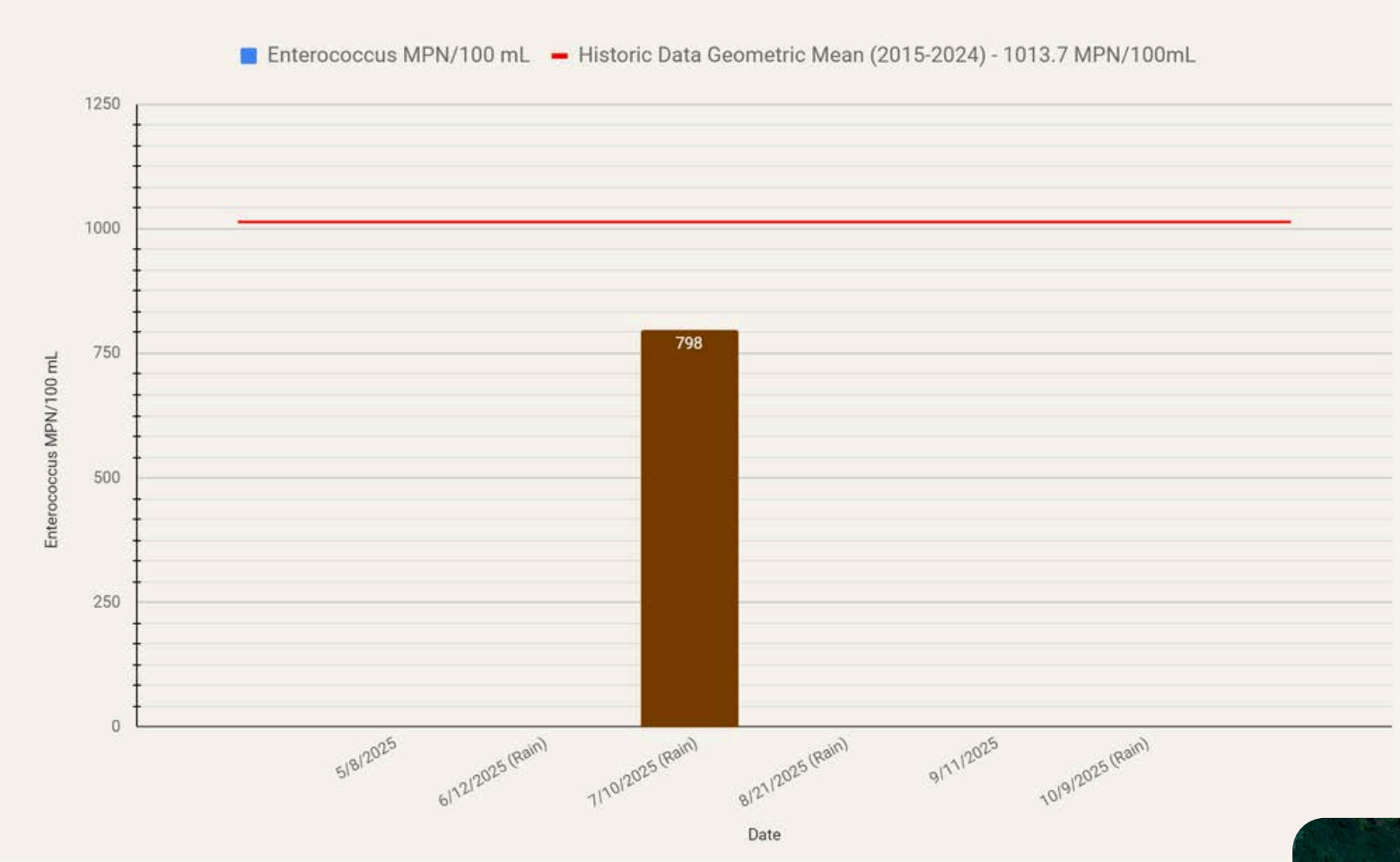
The Saw Mill River spills into and merges with the Hudson River in the heart of downtown Yonkers. Not long ago this river was buried below a parking lot very quickly escaping the minds of those rushing to catch the Metro North train or traveling to the local library to check out this year's bestsellers. In 2012 the parking lot was tore up and the river "daylighted" creating new river habitat and much-needed urban greenspace. However, this sampling location has long been problematic in its bacterial counts. Rarely has this site ever resulted in bacterial counts close to the EPA's acceptable levels. In addition, it hosts a slew of other problems including (but not limited to) being a home dumping ground of unwanted pet fish and a motorized scooter underwater graveyard, often witness by sampler Kirsten A. This is a key takeaway from this research - that it's important to remember that even if a site looks nice on the surface, it still may be far from healthy for wildlife or people.

WALSH ROAD: YONKERS



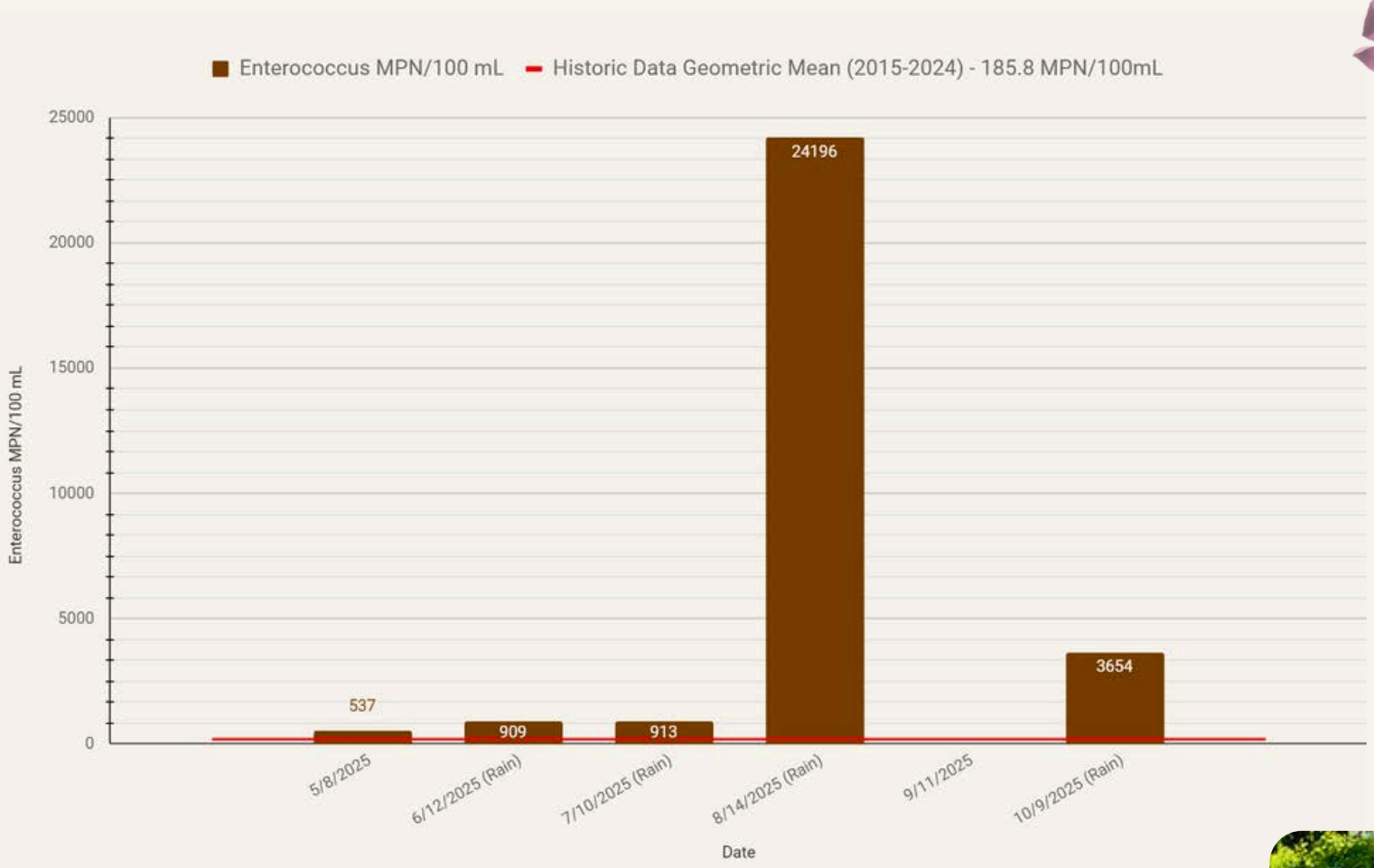
The Walsh Road sampling location was actively sampled by a dedicated volunteer until their retirement in 2023. Since then, it has been quite difficult to recruit a volunteer dedicated to the site. This summer, our research lab assistants were able to collect one sample from the location and the results were very much in alignment with data collected in past years. The result of fecal indicator bacteria far exceeded the criterion for safe levels of bacteria in a waterway. On the one sampling date this year, the results came in at over half the historic geometric mean. This is quite common at this site and we have witnessed similar spikes in bacterial levels at times of wet weather events (>0.1" rainfall within 24 hours prior of sampling). This site has largely been altered by human infrastructure with concrete barriers holding in the rush of river during heavier rain events and preventing natural cycles from efficiently processing excess pollutants such as bacteria.

TORRE PLACE: YONKERS

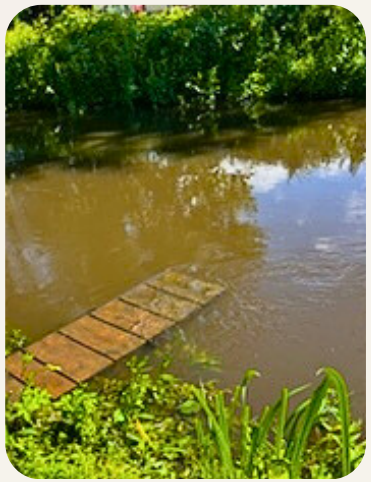


Much like its "sibling" site Walsh Road, Torre Place has also been a site without a steward since 2023. The site's one result from a sample collected in July of 2025 was very much in alignment with results collected at the site in past years. The sample produced a result lower than its historic mean of 1,013.7 MPN/100 mL. As a reminder, the safe limits that guide our research are set at a geometric mean of 30 MPN/100 mL. Although the results look very low compared to the historic average, its results of upwards of 758 MPN/100 mL is very unsafe for primary contact and can be a cause of serious illness. The sites in the northern regions of Yonkers are incredibly attractive to local community members looking for relief from increasing summer season temperatures. Unlike other pollutants, like floatable materials, these bacteria are not identifiable with the naked eye. With averages that exceed in a multitude of approximately 25, this point of water should not be used recreationally by community members.

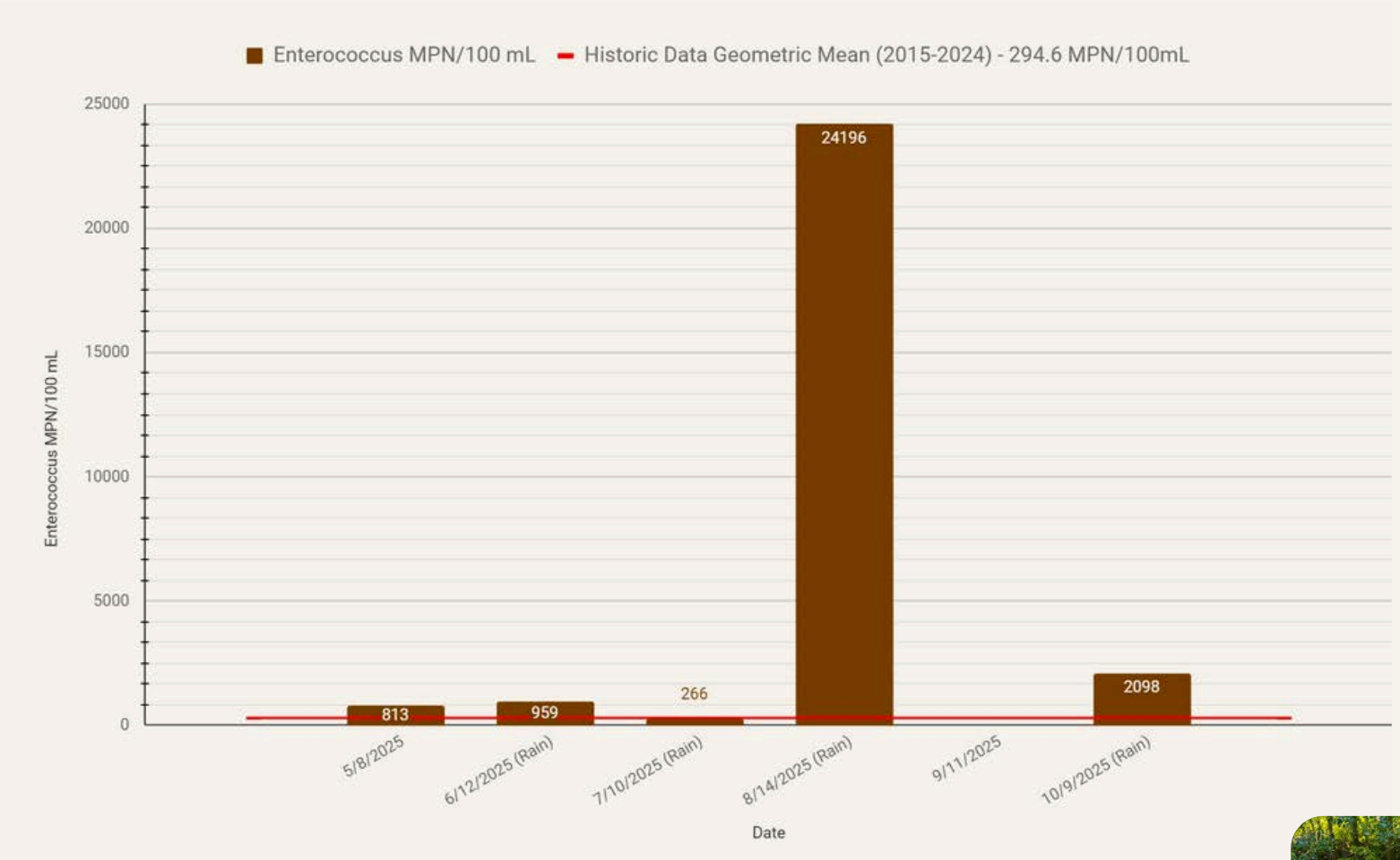
HEARST STREET: YONKERS



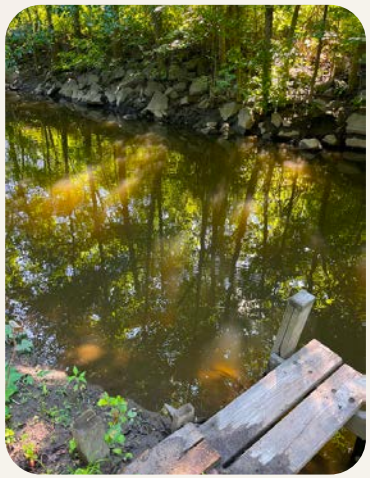
Beyond a small meadow of greenery often maintained by local community volunteers lies an access point to the Saw Mill River at Hearst Street. It is a remarkably stark difference in landscape compared to the southern sampling sites partially because this site is close in proximity to the South County Trailway. Volunteer Steve P. notations associated with this sampling site often include witness of plant overgrowth, specifically knotweed, mugwort and porcelain vine - all species that thrive along the banks of urban waterways. Often times an excess of available nutrients in surrounding areas help fuel the overgrowth of plants acting as a natural fertilizer. Some of the lowest sampling results at this location in 2025 exceed the safe limits by more than 500 bacterial counts per 100 mL of sample. In August, the results from this site exceeded the test's max capability of quantification - 24,196 MPN/100 mL. This is not a surprise, as most sampling sites on the Saw Mill River that experience heavy bursts of rainfall during short time periods also continue this trend of exceeding the tests capabilities.



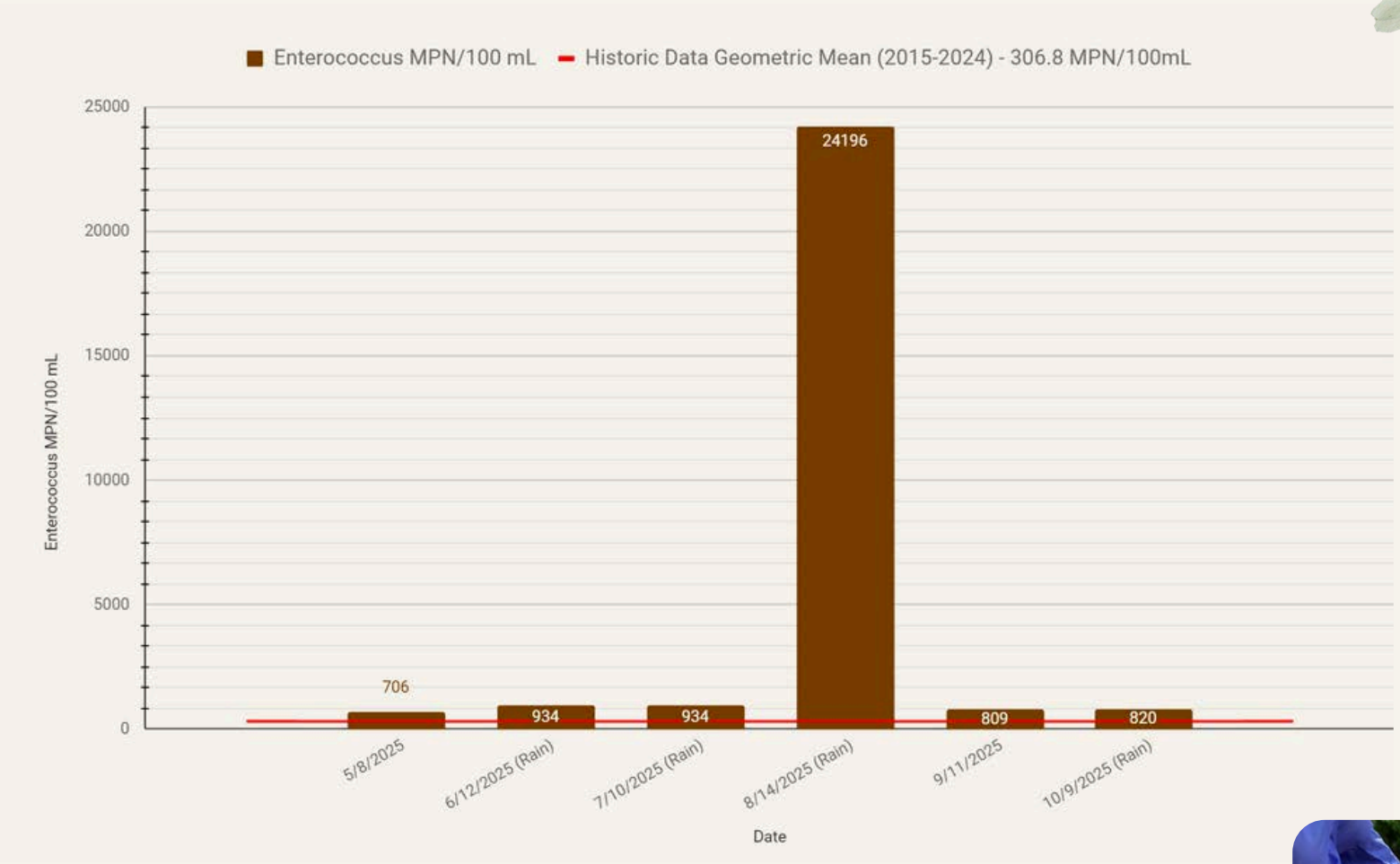
SOUTH COUNTY TRAIL: HASTINGS



The South County Trail sampling site has been a place of interest for many years in this research as it is situated along a trail with very regular foot traffic and visitors. This sampling site has only met the standard of safe threshold 5 sampling events of the total 107 samples collected over the past 10 years. This location on the river has a chronic record of sewage indicator presence despite rain fall amounts. In 2020 and 2021, this site was chosen as a DEC PEERS testing site which included a lab certified analysis of different indicating parameters. Although most of the results were seasonally dependent, the nitrogen and phosphorus levels were consistently elevated compared to EPA regulatory thresholds at the time. These elevated nutrients can ultimately act as a catalyst for the survival of the fecal indicator bacteria enterococcus.

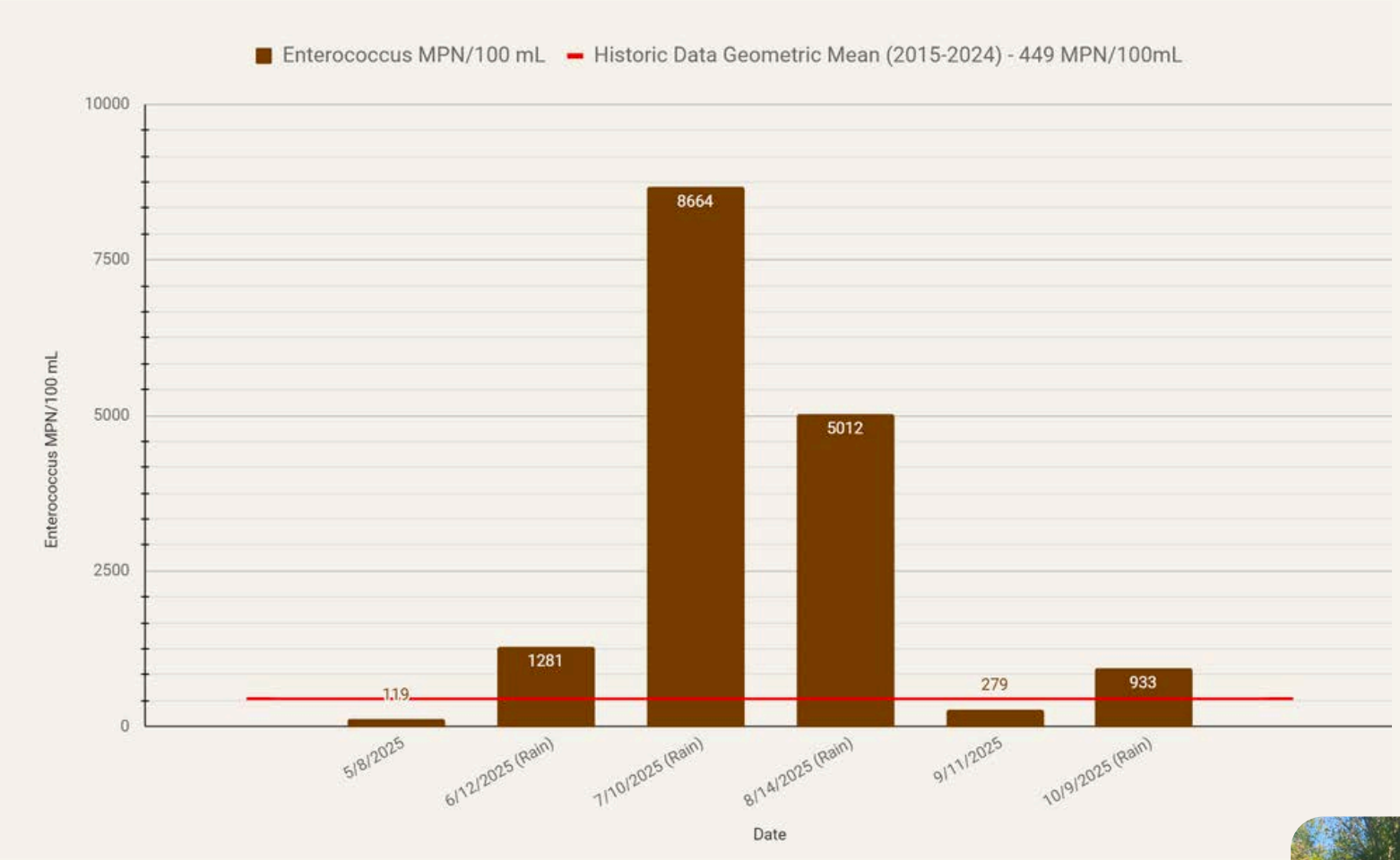


V.E. MACY PARK BALLFIELDS: ARDSLEY

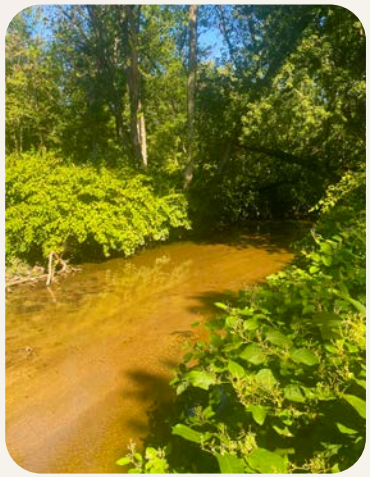


Walking through V.E. Macy Park transports visitors into an oasis of nature and recreation. Past the ballfields that are consistently occupied by baseball and softball enthusiast, lies a little pathway that leads you to the banks of the Saw Mill River. This area of the river gives the impression of what the river would look like had its banks not been developed so heavily. This site is home to a beautiful stream riffle that are homebase for many aquatic macroinvertebrates. These species are an important foundation of the food chain and their presence and biodiversity can be an indicator of a streams health. In 2021 an aquatic macroinvertebrate assessment was conducted at this site and the results were considered inconclusive to a specific water quality condition. When this result is determined, a site is considered to be impacted but not impaired.

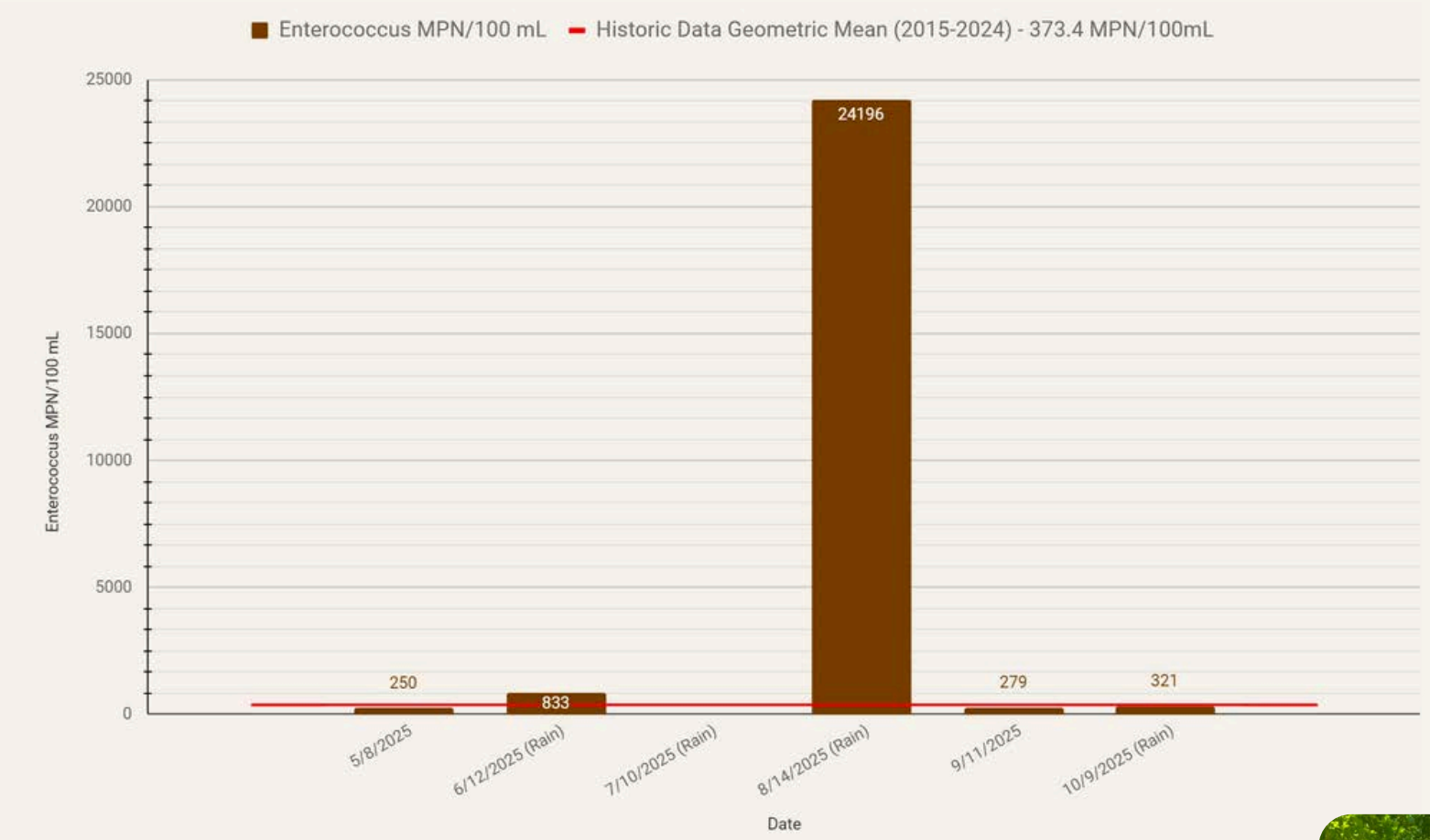
RUM BROOK TRIBUTARY: ELMSFORD



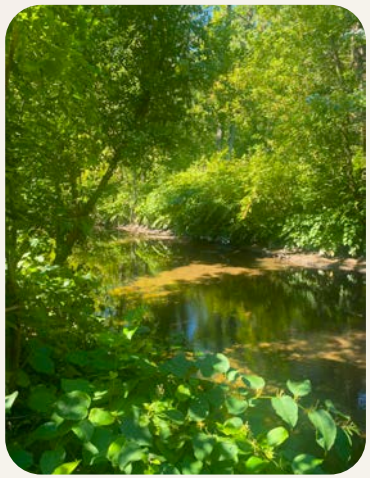
The Saw Mill River welcomes a number of different tributaries that connect to it in the northern stretches of the river. The Rum Brook tributary has been a consistent source of fecal indicator bacteria to the greater Saw Mill River. Within the 2025 sampling season, there was not one sample that was processed that met the EPA standards of enterococcus presence. Most samples processed indicated that on days with rain events, this sampling site becomes overwhelmed with a source of bacteria. This is not an uncommon occurrence along the river. Wet weather events often result in poorer and unfavorable water quality within urban watersheds. This is predominately due to inflow and infiltration of failing sewage infrastructure built along the waterways. The failing infrastructure can ultimately impact the species living within and along the river and contribute to greater fluvial geomorphological problems.



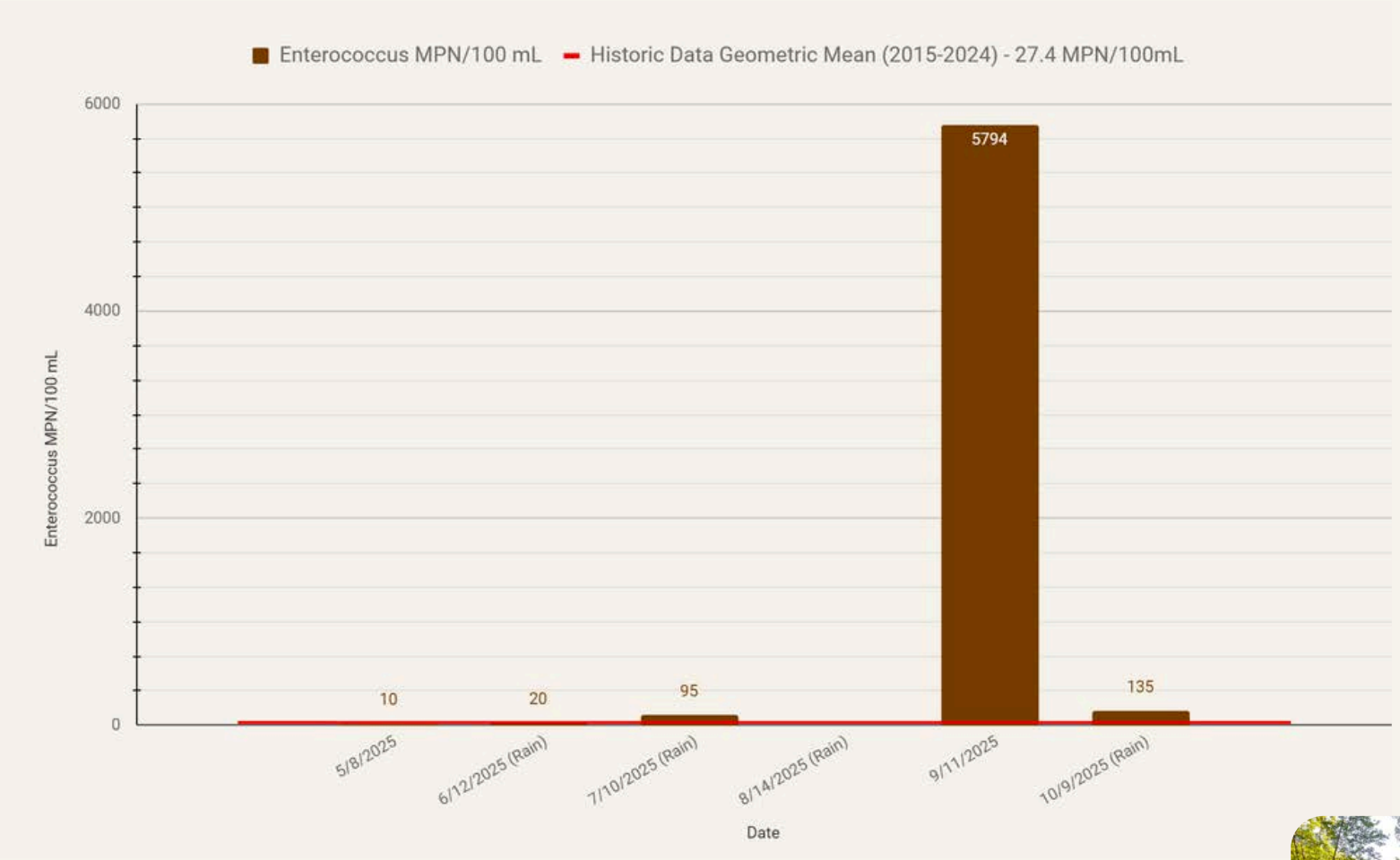
RUM BROOK BALLFIELDS: ELMSFORD



Behind a beautiful ballfield in Elmsford lies a stretch of the Saw Mill River. Often described as difficult to access by volunteer sampler Lee W., this sampling site hosts a number of thriving species that have taken root along the banks - mirroring many of the other sampling sites located along the waterway. This site maxed out the fecal indicator bacteria testing mechanism after a heavy rainstorm in August. This is not uncommon and often expected from samples that have been collected in or after heavy rainstorms. Testing limitations of the Enterolert processing method is >24,196 on the upper maximum and <10 on the lower limit. These results are capped by the maximum of the statistical model of the test - here meaning, the results can be much greater than the result that is being read with the experimental limits. Despite this one result in maximum, there were no other result that met the EPA criteria for safe interaction of the waterway like most sampling sites within this upper region.

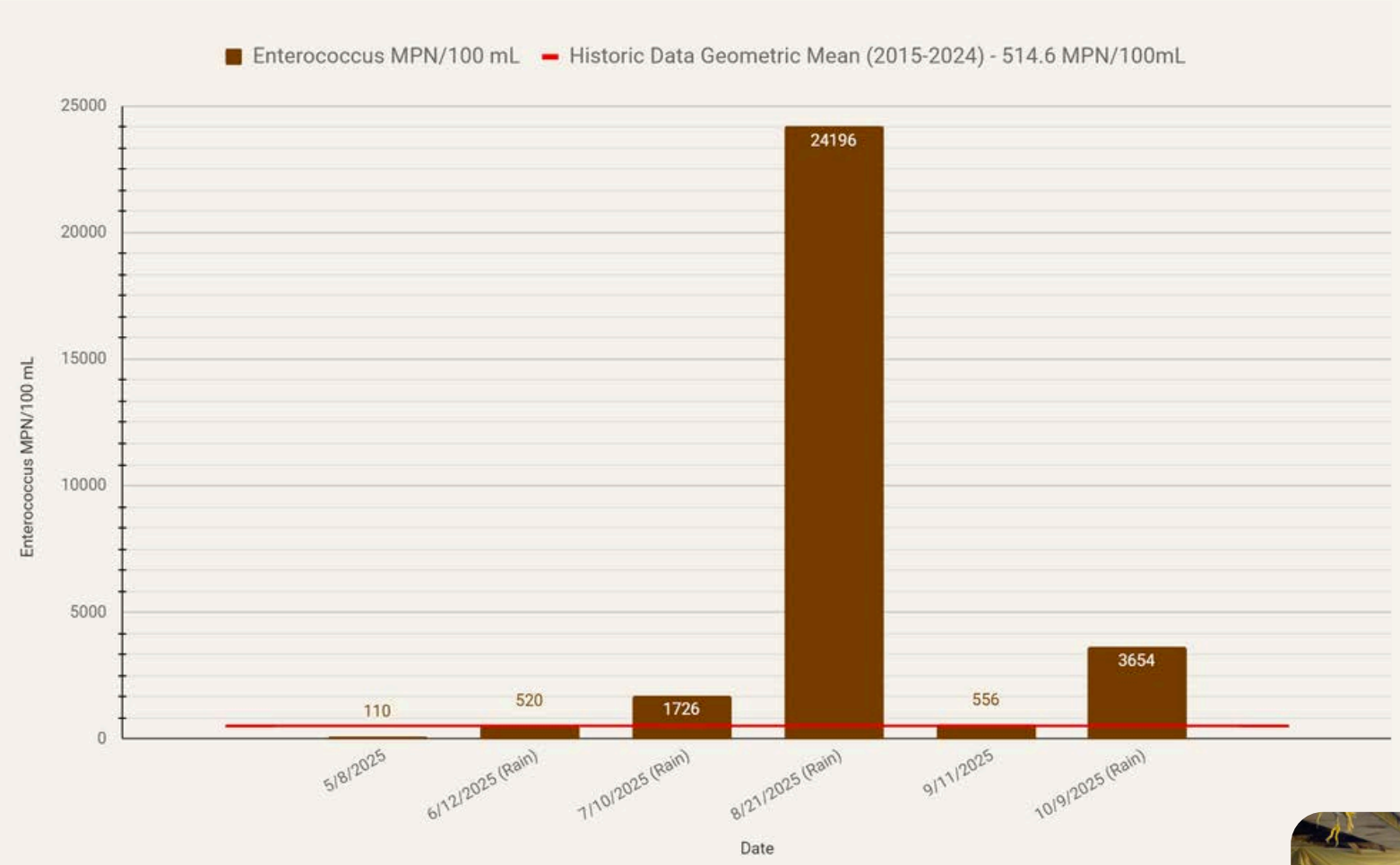


CROSS WESTCHESTER EXPRESSWAY: ELMSFORD



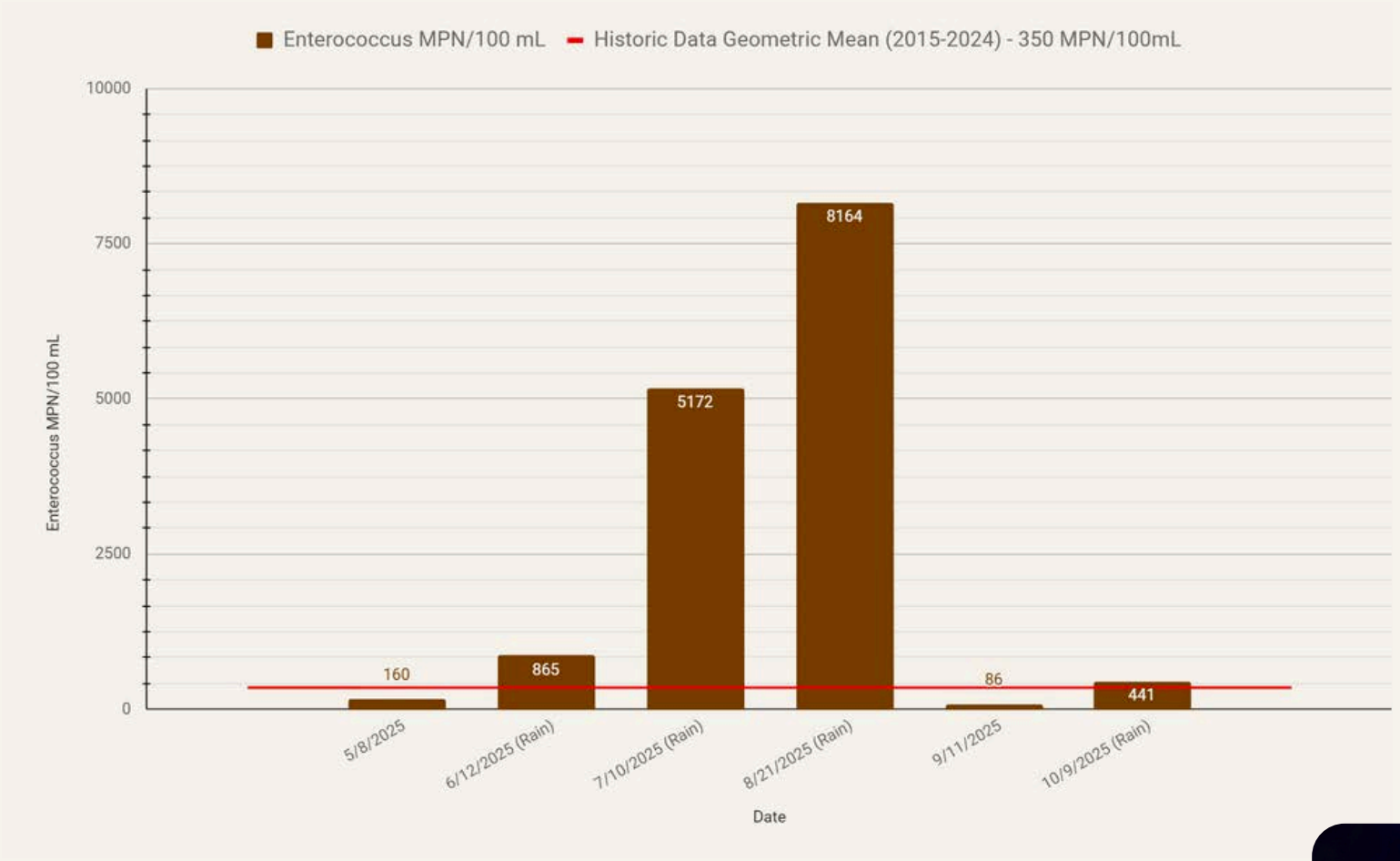
The Cross Westchester Expressway sampling location is relatively new to the sampling pool. Active community leader and environmental educator, Joel R. of the Groundwork Hudson Valley Science Barge requested this site to be part of our fecal bacteria research. This site, like many others along the Saw Mill River, has displayed many interesting results. Historically, this site meets the water quality standards of primary contact often despite results from northern and southern locations that are sampled along the river. Occasionally, a beautiful aquatic bird will linger on shorelines to wish our sampler good morning.

ABOVE MINE BROOK TRIBUTARY: ELMSFORD



The sampling location of "above" Mine Brook is intended to look at the mainstem Saw Mill River before it intersects with the Mine Brook Tributary. Throughout the 2025 season, all of the samples received from this sampling location were greatly contaminated with much greater amounts of fecal indicator bacteria. This site has had a historic record of being incredibly contaminated upwards of 8 times over the EPA limits set for water quality standards. The bridge that towers over this sampling location was documented as being repaired within the 2025 season by sampling volunteer Bill D. Although these repairs did not seem to impact the bacterial sampling, many construction projects along and above waterways can impact other water quality factors such as turbidity (clarity) of the waterway and displace species that are sensitive to vibration and noise associated with construction projects.

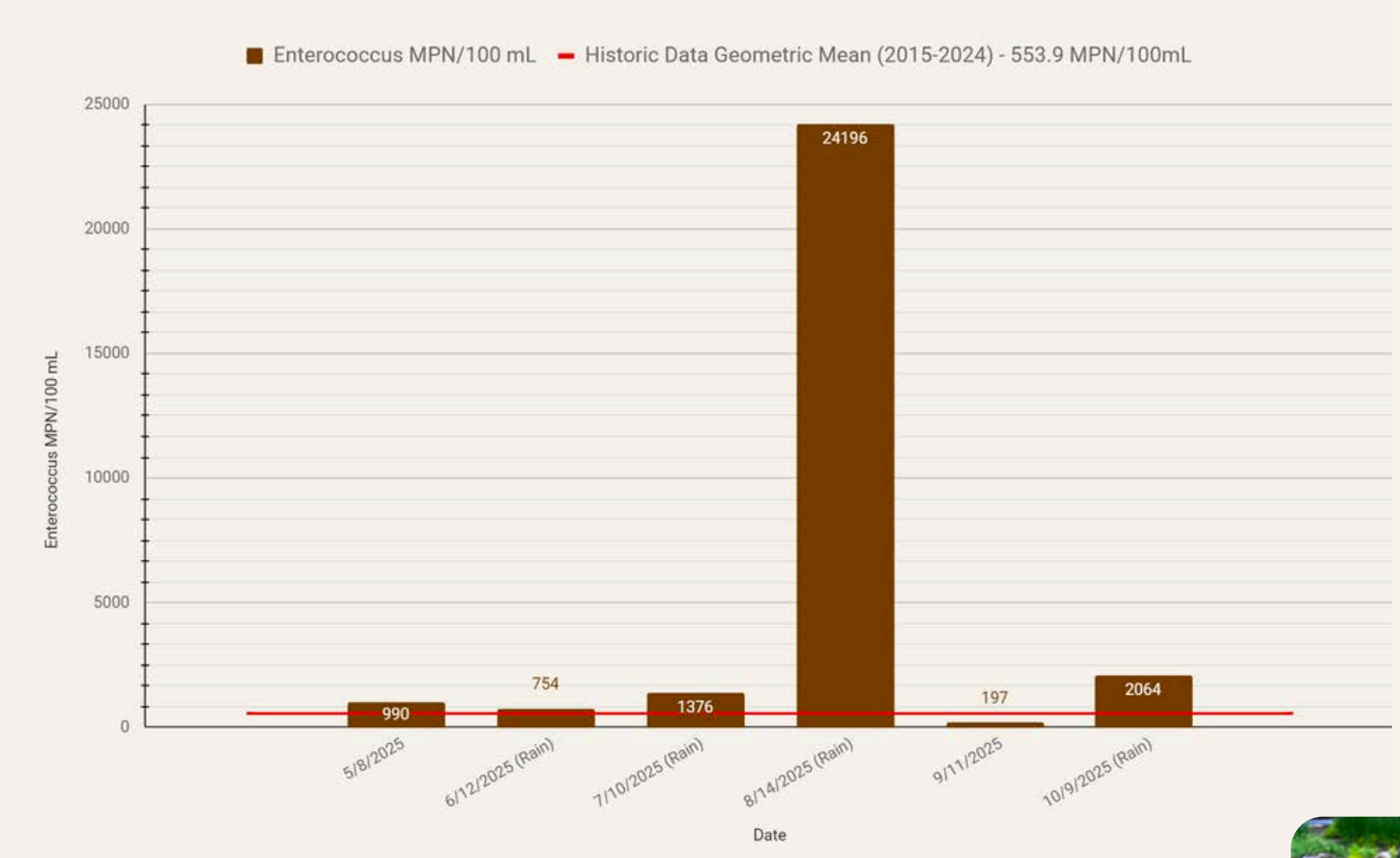
MINE BROOK TRIBUTARY: ELMSFORD



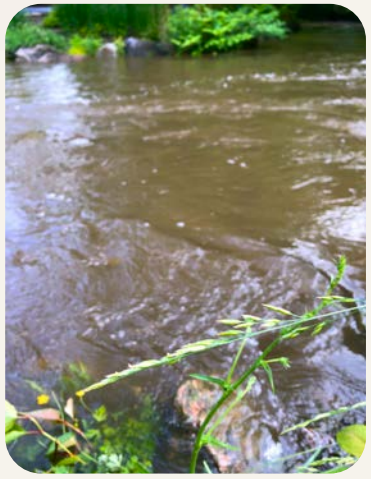
*There are no recorded photos from samplers for this site location

The Mine Brook tributary is one of many different connecting waterways along the length of the Saw Mill River. This tributary, compared to others sampled along the waterway, is one of the historically healthiest in terms of bacterial counts. This only means that this site has a likely spike of bacterial counts in association with rain events. On most dry weather events, this tributary hosts much lower bacterial counts.

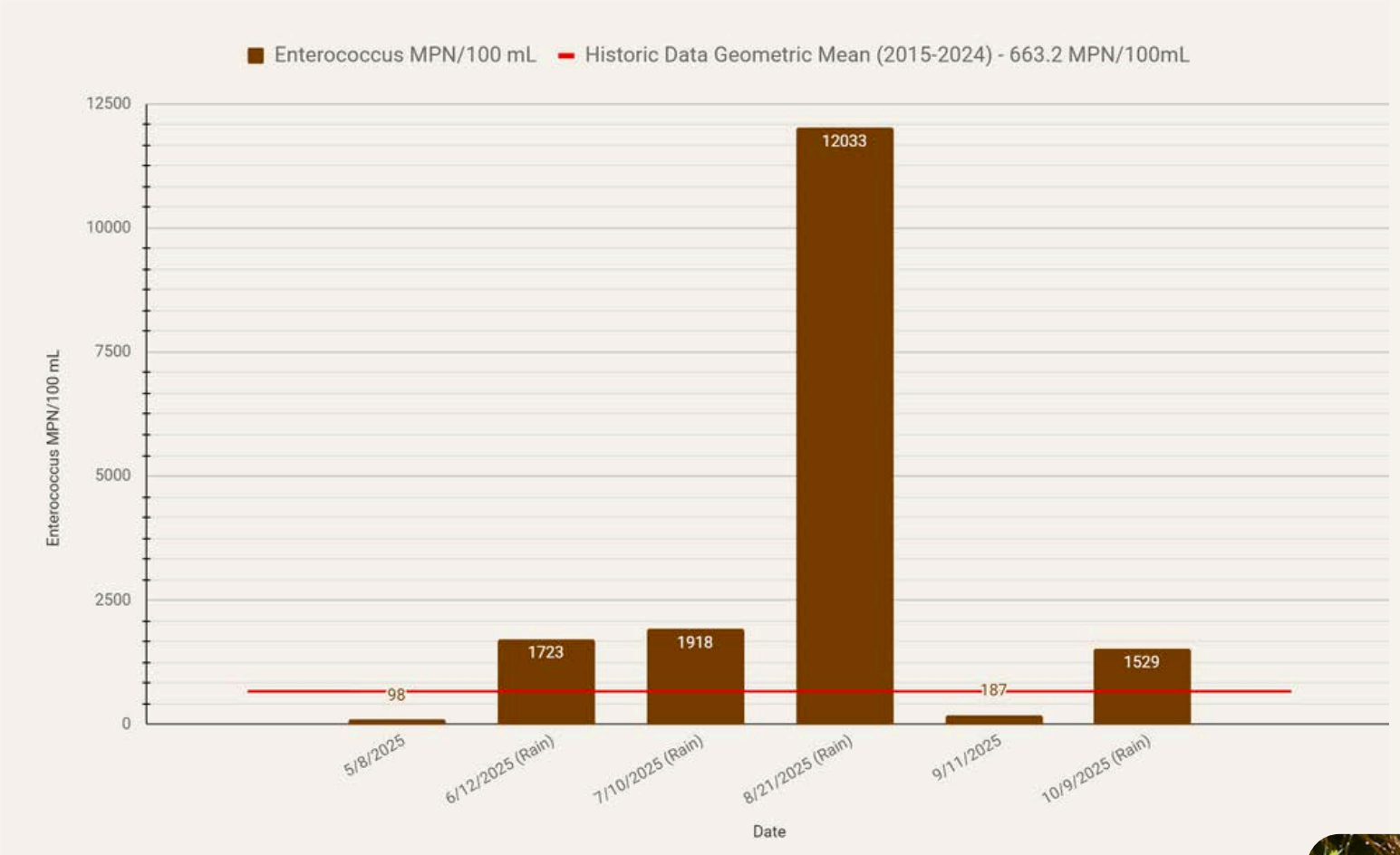
SAW MILL RIVER ROAD: HAWTHORNE



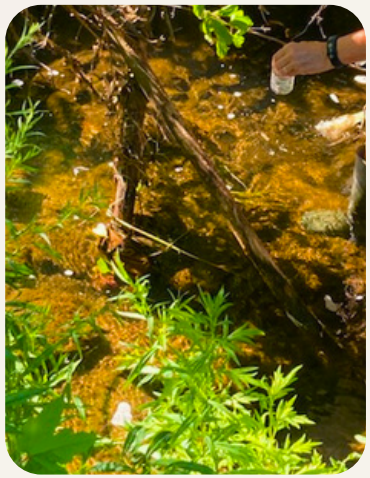
Most of the Saw Mill River watershed finds itself in a flooded state after much heavy rainfall drains directly into the mainstem. There are some reported sites; however, like the Saw Mill River Road sampling site that sampler Sarita E. often finds with little to no water during periods of drought like conditions. Stationed just east of the Pocantico Hills and just behind a plant nursery that uses areas past the river banks as seedling habitat, this location is surrounded by plenty of natural space unlike many of the southern sites that flow alongside industrial areas. This poses an advantage during smaller rainstorms in the area as much of the plant life living nearby can soak up the rain using its complex root systems. These root systems can also be a disadvantage in areas where wastewater infrastructure is present. Strong root systems can cause damage to underground infrastructure and can become a reason why outflow of bacteria and harmful waste enter the local environment.



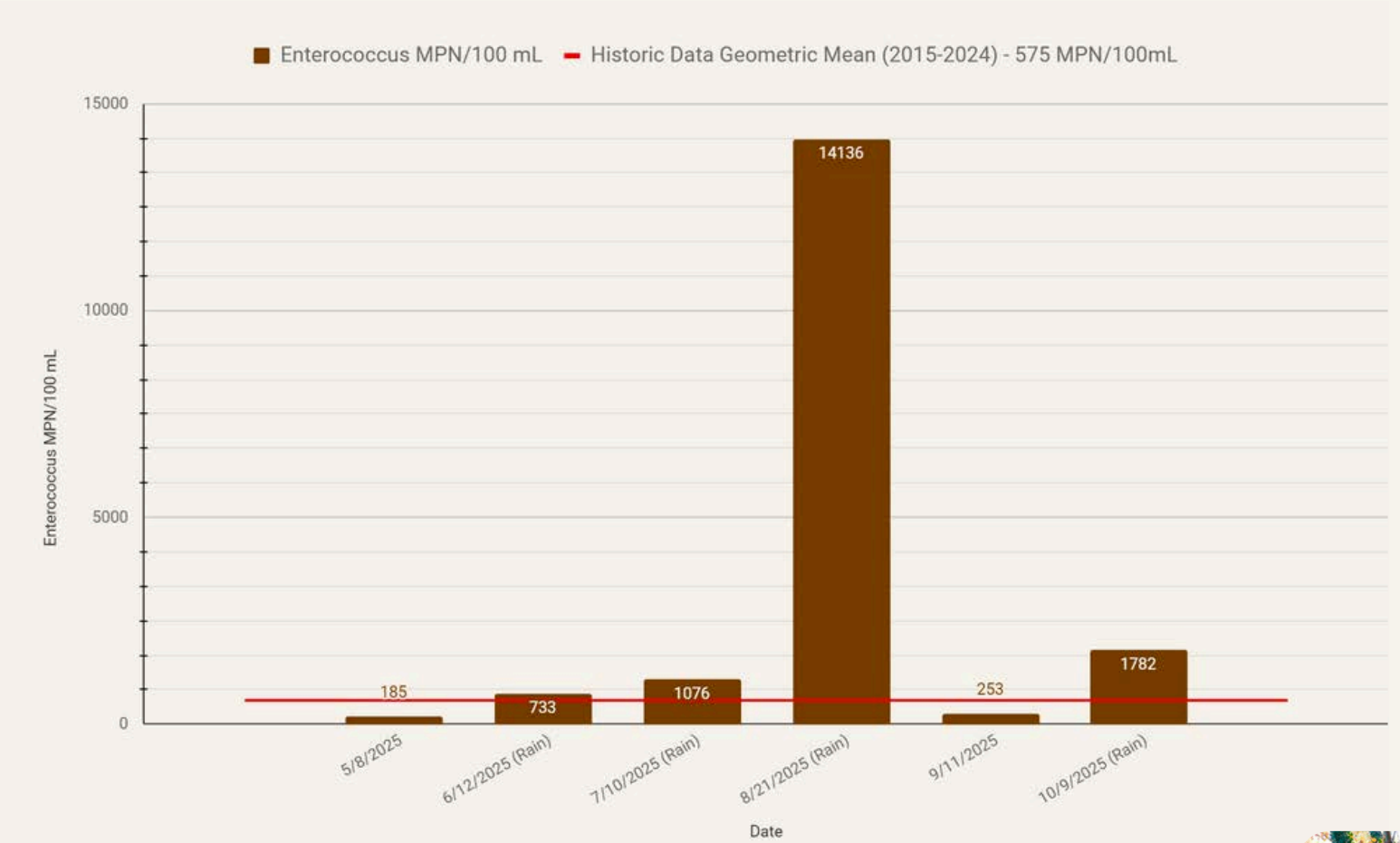
NANNYHAGEN BROOK TRIBUTARY: HAWTHORNE



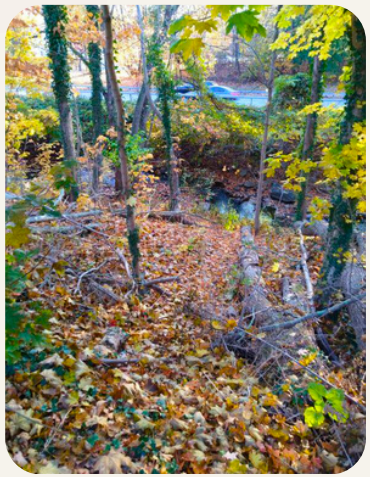
Only 5.66% of samples collected from the Nannyhagen Brook tributary resulted in amounts less than 60 MPN of enterococcus/100 mL. This is not an uncommon percentile of samples collected from tributaries that connect to the Saw Mill mainstem. Unlike some of the other sites, this tributary's bacterial fluctuation is not directly correlated with rainfall that occurs within 24 hours of sampling. Many of the historic sampling events at this site with little (less than 0.10" of rain) or no rain have resulted in high amounts of bacteria upwards of 100+ MPN/100 mL of sample. This indicates that there is a consistent source of fecal indicator bacteria being introduced to this sampling site either naturally or through failing local infrastructure. This site is highly problematic because of its consistent leaching of bacteria into its waterway and ultimately the Saw Mill and Hudson Rivers it connects to.



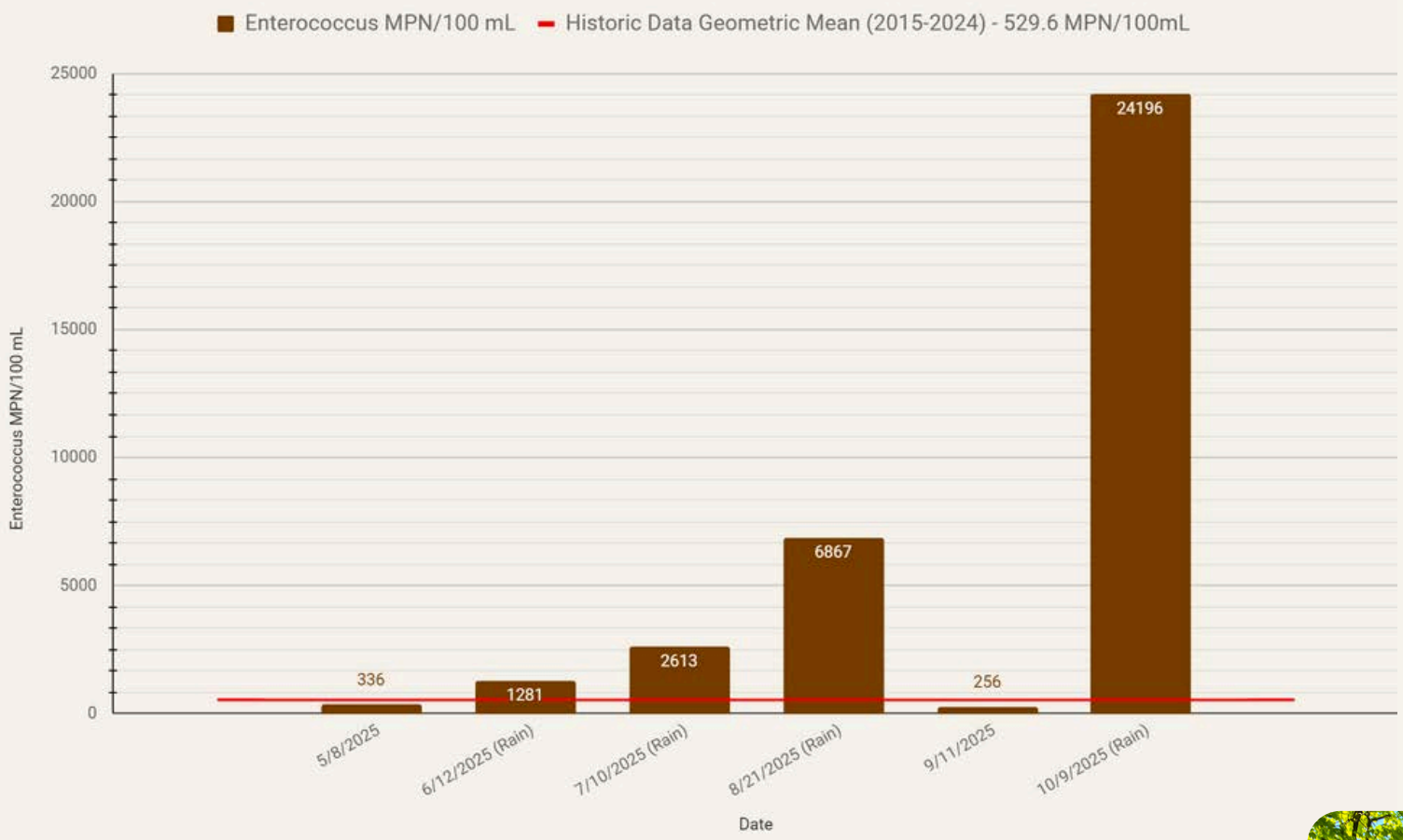
PLEASANTVILLE ROAD: PLEASANTVILLE



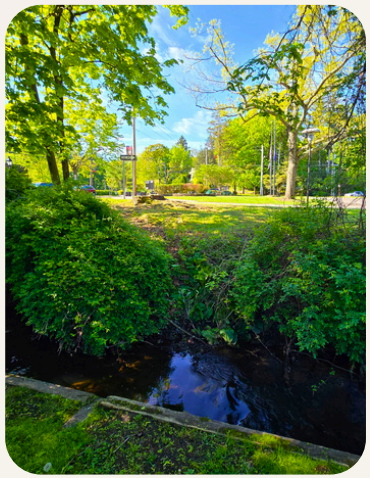
The area around the sampling site of Pleasantville Road has been quite historic. Dating back to 2015, this sampling location has been a deep interest to local community members turned volunteer samplers like Helen M. The river flows quietly sunken compared to the suburban area along its banks. For a blissful moment, sitting within the river in waders awaiting sample bottles to be filled, it becomes quite easy to forget that this site has had a historic problem of elevated bacterial counts since the inception of the sampling program and most likely predates even that. Unlike many other pollutants such as plastic waste or oil spills, it is very difficult to determine how bacteria is impacting a waterway with the bare eye and oftentimes pristine locations such as those sampling locations in Pleasantville become overlooked because of the way it looks.



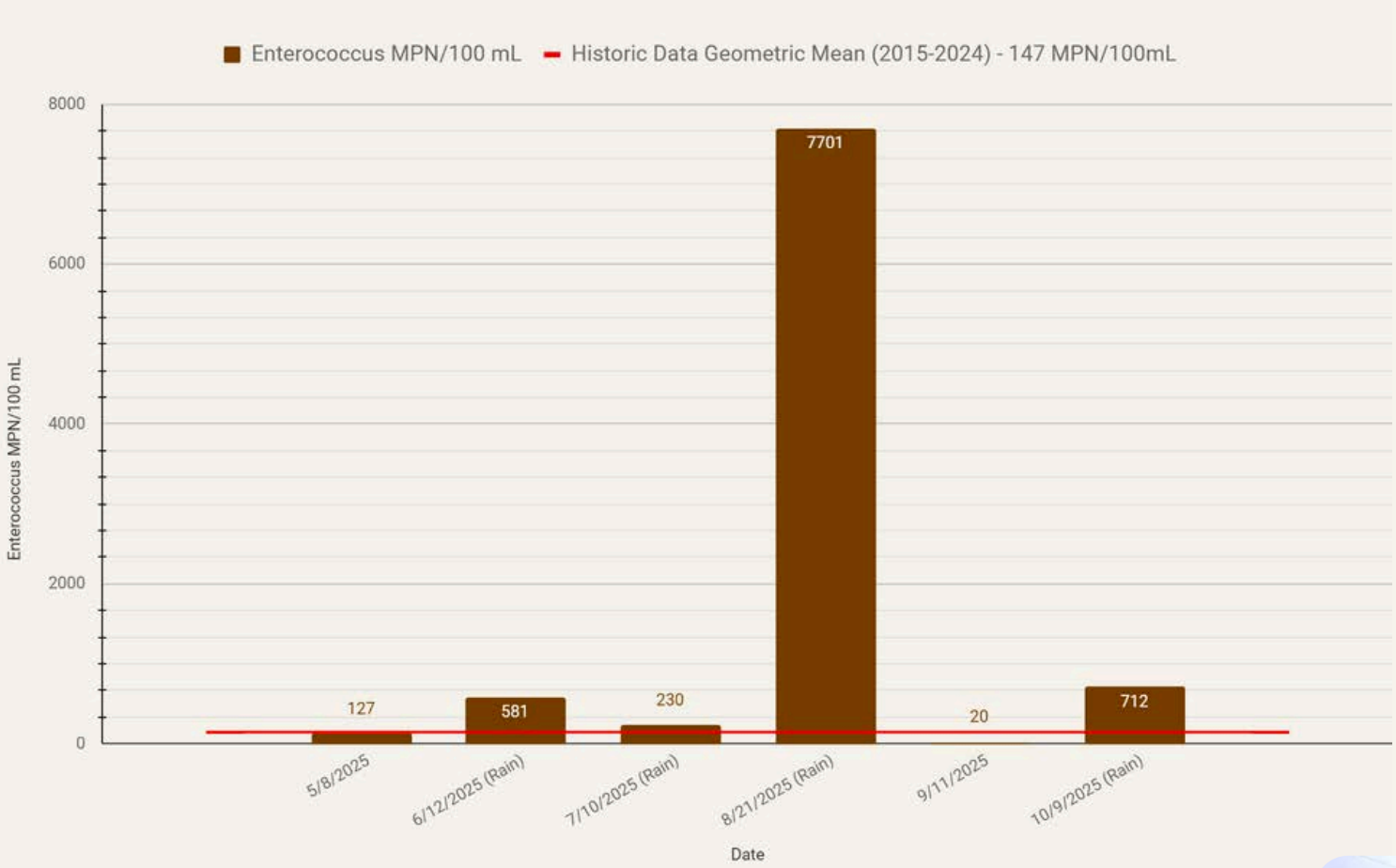
TERTIA BROOK TRIBUTARY: NEW CASTLE



Sandwiched between a baseball field and the New Castle town hall parking lot is a small brook tributary that flows along beaming with life such as crayfish and submerged aquatic vegetation. Only 4.42% out of all of the samples that were collected at this seemingly perfect brook fit the EPA criteria for safe primary contact recreation based on fecal indicator bacteria present in a waterway. The bacteria presence here does not seem to have a grand impact on wildlife here that call the waterway home. Aquatic plants, however, may have a bit of an advantage and edge thanks to the excess nutrients present within the system coming from continuous fecal waste. The source of the Brook, Tertia Lake, lies to the East bordering the Saw Mill's sister river, the Bronx River, and slivers thinly along predominately residential areas. It is not uncommon for waterways that flow through and along developed areas to have more unfavorable water quality.



DUCK POND SPILLWAY: NEW CASTLE



At the headwaters of the Saw Mill in Chappaqua, another photo of pristine looking site stands picturesque with a cascading spillway under a countryside inspired walking bridge is submitted by sampler Sharon A. Trickling from the source of the Duck Pond, this site has had a better historic geometric mean of bacteria than most. Often times, this sampling location can be an indicator of how much bacteria the rest of the sampling sites will result. For example, days where sampling the duck pond spillway results in bacterial counts within acceptably lower ranges, most other sites in the watershed will conclude in results lower than their own historic geometric mean. On its worst sampling result day in August topping 7,701 MPN/100 mL, many of the other sites south of this location maxed out the Enterolert testing limitations.