BRONX RIVER
Community Water Quality Monitoring Results 2017-2018

Solutions Spotlight
NYS has designated the portion of the Bronx River in Westchester County as “impaired,” indicating that sewage pollution is a major problem even in areas that don’t have combined sewer overflows. Improving water quality will require a multi-faceted approach including maintaining and upgrading public both sewer and stormwater systems, and private septic systems.

What the Data Show

<table>
<thead>
<tr>
<th>What portion of samples were safe for swimming?</th>
<th>How high were the bacteria levels?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only 3% of samples collected at non-tidal sites met the EPA guideline for safe swimming.</td>
<td>Bacteria levels are much greater after rainfall, which causes runoff, and can cause wastewater system overflows.</td>
</tr>
<tr>
<td><img src="335x335" alt="3%" /></td>
<td><img src="335x335" alt="535" /></td>
</tr>
</tbody>
</table>

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 more than 10 times.

More: Explore a watershed map, data from each sampling site, year-to-year patterns and other info at riverkeeper.org/water-quality/citizen-data/bronx-river. Learn about the Bronx River Alliance at bronxriver.org.
Community Science
The water quality data presented here are based on an analysis of 208 samples collected since 2017 by community scientists. Samples were collected once or twice monthly from May to October and processed by the Sarah Lawrence College Center for the Urban River at Beczak. This work is supported by Patagonia and Westchester Community Foundation. To get involved contact Diana Fu: diana.fu@bronxriver.org.

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, inadequate 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.

Bronx River Water Quality

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A Little About the Bronx River
The Bronx River travels 23 miles from suburban Westchester to the Bronx, where it empties into the East River. It is the only major waterway in New York City that is not entirely tidal.

Signs of Progress
By testing for Entero regularly, the Bronx River Alliance has spotted problem outfalls and has worked with municipalities such as Yonkers to stop sewage leaks into the river. In 2018, Westchester County and the Bronx River Alliance won a NYS grant to incorporate climate resiliency into the existing Bronx River Watershed Plan.

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### How high were bacterial levels?

**EPA threshold: GM* should not exceed 30**

<table>
<thead>
<tr>
<th>Site Description</th>
<th>% of Samples Unacceptable</th>
<th>% of Samples Acceptable</th>
<th>Bacteria Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>BR-WC 10 / Mount Pleasant- Highclere Lane</td>
<td>93%</td>
<td>7%</td>
<td>309</td>
</tr>
<tr>
<td>BR-WC 8 / Mount Pleasant- S Kensico Ave at Pat Henry Field</td>
<td>100%</td>
<td></td>
<td>686</td>
</tr>
<tr>
<td>BR-WC 7 / White Plains- Westchester County Center</td>
<td>100%</td>
<td></td>
<td>671</td>
</tr>
<tr>
<td>BR-WC 6 / Greenburgh- Greenacres Avenue</td>
<td>100%</td>
<td></td>
<td>381</td>
</tr>
<tr>
<td>BR-WC 4 / Eastchester- Bronx River Parkway at Leewood Drive</td>
<td>100%</td>
<td></td>
<td>337</td>
</tr>
<tr>
<td>BR-GS 1 / Bronxville- Sprain Brook at Palmer and Millard Ave</td>
<td>100%</td>
<td></td>
<td>922</td>
</tr>
<tr>
<td>BR-WC 3 / Bronxville- Below Grassy Sprain Brook confluence</td>
<td>82%</td>
<td>18%</td>
<td>303</td>
</tr>
<tr>
<td>BR-SWS-21 / Yonkers- Muskrat Cove outfall</td>
<td>92%</td>
<td>8%</td>
<td>647</td>
</tr>
<tr>
<td>BR-SWS-02 / Yonkers- Bronx R Pkwy btw McLean &amp; Wakefield</td>
<td>100%</td>
<td></td>
<td>363</td>
</tr>
<tr>
<td>BR-SWS-06 / Bronx- Burke Avenue Bridge</td>
<td>93%</td>
<td>7%</td>
<td>337</td>
</tr>
<tr>
<td>BR-SWS-11 / Bronx- River Park at 182nd Street</td>
<td>100%</td>
<td></td>
<td>278</td>
</tr>
<tr>
<td>BR-SWS-14N / Starlight Park North dock</td>
<td>100%</td>
<td></td>
<td>281</td>
</tr>
<tr>
<td>BR-SWS-16 / Hunts Point Riverside Park beach &amp; dock</td>
<td>67%</td>
<td>33%</td>
<td>180</td>
</tr>
<tr>
<td>BR-BxR-009 / Soundview Park- HP-009 CSO outfall</td>
<td>73%</td>
<td>27%</td>
<td>134</td>
</tr>
<tr>
<td>BR-SWS-01 / Soundview Park- Mouth of river</td>
<td>73%</td>
<td>27%</td>
<td>116</td>
</tr>
</tbody>
</table>

*The geometric mean (GM) is a weighted average of all samples.*