DC Citizen Science Water Quality Monitoring

2019-2023 Report

The DC Citizen Science Water Quality Program has gathered and shared water quality data for 24 sites since 2019. With five years of data, we can examine trends in *E. coli* bacteria levels, turbidity, and pH. This has helped us understand which sites consistently have good water quality, where restoration is needed, and how rain events influence water quality. We've found a few key takeaways:

1 Precipitation

After rain, pollutants including bacteria can be washed into streams and rivers across DC through **stormwater runoff.** We consistently found higher bacteria levels after rain.

2 Mainstem vs. Tributaries

Mainstem river sites have higher **water volume** than streams, which helps dilute bacteria. Streams usually weave closer to urbanized areas, so stormwater runoff has a more immediate effect on them.

3 Wastewater infrastructure

A major source of bacteria is wastewater systems. DC Water's Clean Rivers project builds new overflow tunnels and fixes aging sewer pipes. Sites affected by completed projects have better water quality.

Better Sites

Tidal Basin (PR-6)
Columbia Island (PR-7)
Kingman Island (AR-3)
Buzzard Point (AR-6)
Washington Channel (AR-7)

What do these have in common?

They are on the **mainstem** of rivers, so they get a lot of water flowing through the site. They are also generally further **downstream** and far from combined sewer outfalls.

Worse Sites

Normanstone Run (RC-7)
Pinehurst Branch (RC-2)
Hickey Run (AR-2)
Watts Branch (WB-1 & WB-2)
Battery Kemble (PR-1)

What do these have in common?

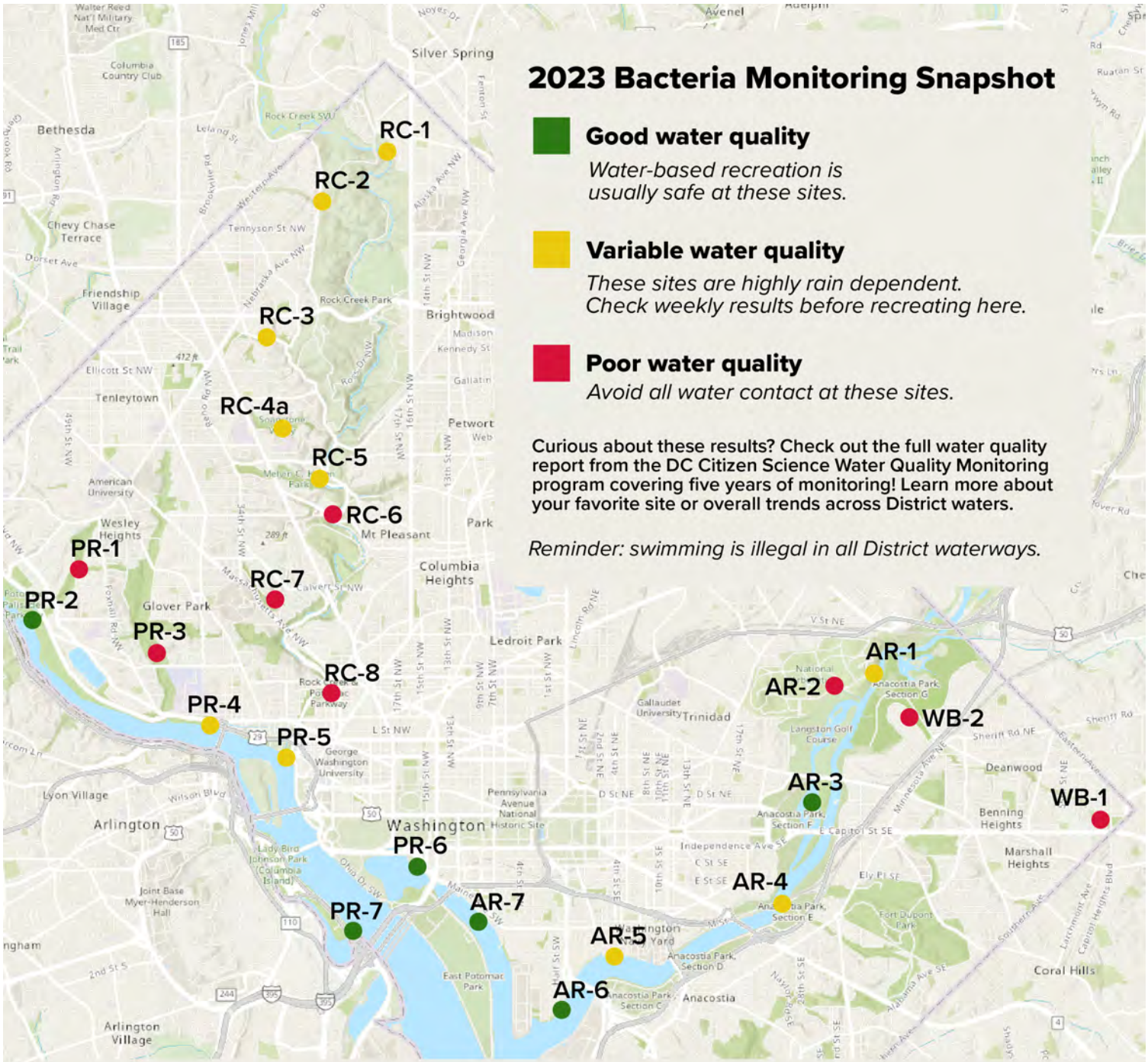
They are small **streams**, so they have relatively little water flow. These sites are in need of major repairs to local sewer infrastructure.

We encourage you to check the water quality before recreating and avoid contact with water for 72 hours after rain. During the summer, weekly results can be found on the Swim Guide app, the Alliance for the Chesapeake Bay website, and social media.

DEPARTMENT OF ENERGY & ENVIRONMENT
GOVERNMENT OF THE DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR
ALLIANCE for the Chesapeake Bay
ANACOSTIA RIVERKEEPER
ROCK CREEK CONSERVANCY
nature forward

Want to learn more? Click here to read the full report.

2023 DC Water Quality



Rock Creek Sites

- RC-1: Juniper St
- RC-2: Pinehurst Branch
- RC-3: Broad Branch
- RC-4a: Soapstone Creek
- RC-5: Reservation 630
- RC-6: Below Piney Branch
- RC-7: Normanstone Run
- RC-8: P St Beach

Potomac Sites

- PR-1: Battery Kemble Park
- PR-2: Fletchers Cove
- PR-3: Foundry Branch
- PR-4: Washington Canoe
- PR-5: Thompson Boat Center
- PR-6: Tidal Basin
- PR-7: Columbia Island

Anacostia Sites

- AR-1: National Arboretum
- AR-2: Hickey Run
- AR-3: Kingman Island
- AR-4: Anacostia Park
- AR-5: Yards Marina
- AR-6: Buzzard Point
- AR-7: Washington Channel
- WB-1: Watts Branch at Marvin Gaye Park
- WB-2: Watts Branch at Kenilworth Park