2019 STATE OF THE ANACOSTIA RIVER REPORT CARD

30 YEARS 1989 - 2019

ANACOSTIA WATERSHED SOCIETY

Overall a failing grade, but the second highest score despite the wettest year on record.

In 2018, Mother Nature "flushed," and it all ended up in the Anacostia River. Record rainfall meant that tremendous amounts of sediment, animal waste, and organic material were dumped into the river, taking us down from our previous passing grade.

But the investments we've made reduced the impact of this "flush" and are helping the Anacostia to recover faster:

- The DC Water tunnel captured 5 billion gallons of combined sewage in the first year of operation as well as over 200 tons of trash and 600 tons of sediment.
- WSSC, Maryland's water utility, is closing in on fixing their exposed and leaking sewer pipes.
- 550 super pooper geese were removed from Anacostia Park over the last three years.
- We are making significant progress towards reducing trash in the river through strong policies, multiple cleanup efforts, outright bans on some materials and heightened awareness.

Photo Credit: Krista Schlyer

We're already seeing improving numbers this spring and expect to return to our passing grade next year.

This is all to say that without the work that has been done, the river water quality would have been much worse. There will be peaks and valleys along the way, and we accept that. Our work is to minimize the valleys and raise the peaks. The trend is good, and the groundwork is laid for continuing improvements to get us to Fishable and Swimmable by 2025.

Highlights:

- **2018 was D.C.'s wettest year on record with an observed rainfall of 66.28 inches.**
- **Dissolved Oxygen and Chlorophyll *a* improved.**
- **Despite the excessive rains, the percent score for the entire Anacostia was the second best since AWS started issuing the State of the River Report Card.**
- **Trash Reduction, one of the qualitative measures, received a passing grade for the first time.**
- **Frequent torrential stream flows eroded stream banks sending tons of sediment to the river. This made the water cloudy and killed submerged aquatic vegetation.**
- **Fecal Bacteria (E. Coli.) comes from not only sewage but from animal feces washed into streams when it rains. The rainy year caused a worse Fecal Bacteria score.**

Photo Credit: Krista Schlyer

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		SCORE(%)	GRADE	MULTI-YEAR TREND
Water Quality Indicators (Quantitative)	Dissolved Oxygen	54	F	↓
	Fecal Bacteria	39	F	↑
	Water Clarity	43	F	↑
	Chlorophyll *a*	81	B-	↑
	Submerged Aquatic Vegetation	31	F	↑
	Stormwater Runoff Volume	46	F	↓
Remediation Indicators (Qualitative)	Toxics Remediation	52	F	↑
	Trash Reduction	62	D-	↑
	OVERALL GRADE	**51**	**F**	↑

Full report available online at: www.anacostiaws.org/state-of-the-river-report-card

The following parameters are used to assess water quality and conditions:

Dissolved Oxygen is critical for the survival of aquatic life and ecosystem sustainability. A score of 100% means that the water has equal to or more than 5mg/L of oxygen all the time.

Fecal Bacteria contamination is caused by sewage discharges and leaks, as well as from pet and wildlife waste. A score of 100% means that fecal bacteria levels are low enough that the river is safe for swimming at all times.

Water Clarity is a measure of light penetrating the water column; this affects the health of aquatic grasses. A score of 100% means that the water is clear enough to see through at at least 4.25 feet.

Chlorophyll *a* is the measure of microalgae biomass; this can impact water clarity and dissolved oxygen levels,indicating the amount of nutrients like phosphorous and nitrogen. A score of 100% means that the body of water has only the appropriate amount of microalgae biomass.

Submerged Aquatic Vegetation (SAV) requires light to thrive and is essential habitat for young fish and other aquatic life. A score of 100% means the Anacostia River has at least 20 acres of SAV beds.

Stormwater Runoff flushes trash and toxics from paved areas and erodes stream banks, filling the river with sediment. A score of 100% means that the peak stream flows are the same as averaged values from recorded historical levels (1938-1942).

Toxics Remediation in the Anacostia River evaluates the efforts to remove and contain PCBs and PAHs in the riverbed that potentially pose chronic damage to people and wildlife. A score of 100% means that the toxic sediment is fully addressed and remedied.

Trash Reduction evaluates the efforts to reduce trash in the Anacostia River and the surrounding tributaries. A score of 100% means that trash pollution is fully addressed by local jurisdictions and no trash is visible on the river.

EcoCheck scoring method is used for all Water Quality categories, except for Stormwater Runoff Volume which is evaluated by AWS. Remediation Indicators were systematically evaluated by AWS professionals for numerous benchmarks to achieve removal of the pollutants. A standard school grading system is used to determine the letter grades, where below 60 = F. Historical data were used for trend analyses. Remediation Indicator evaluations and Water Quality Indicator analysis were done for 2018.

The you to the following organizations for your support:
- Mid-Atlantic Tributary Assessment Coalition
- USDA Environmental Microbial and Food Safety Laboratory
- District Department of Energy and Environment
- The Keith Campbell Foundation for the Environment
- American Chemical Society
- Prince Charitable Trusts

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AWS is looking for potential funders to make this reporting sustainable. Please contact Emily Conrad if you can help at econrad@anacostiaws.org or 301-699-6204 x111

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