



2024 STATE OF THE ANACOSTIA RIVER REPORT CARD SUMMARY



ANACOSTIA
WATERSHED
SOCIETY

President's Message

The Anacostia Watershed Society (AWS) in its 2024 State of the River Report has determined that the water quality of the Anacostia River receive a passing grade and the highest grade to date since the Report began grading the river in 2014. Several parameters are showing consistent improvement. Others are more sluggish from year-to-year, but overall the river continues steady progress toward a clean and healthy future.

Every year since 2002, AWS has been monitoring the water quality of the river in a rigorous and consistent manner. This has produced a wealth of dependable data to track changes in water quality, providing not only a snapshot of water quality today, but a record of progress and setbacks over time. The State of the Anacostia River Report is our annual analysis of this data, providing a detailed report to the decision-makers, stakeholders, and the public on the river's progress toward recovery.

2024 ANACOSTIA RIVER REPORT CARD

		Score	Grade	Multi-year Trend
Water Quality Indicators (Quantitative)	Water Clarity	56%	F	↑
	Chlorophyll <i>a</i>	81%	B-	↑
	Submerged Aquatic Vegetation (SAV)	100%	A	↑
	Stormwater Runoff Volume	53%	F	↔
	Dissolved Oxygen	50%	F	⚠
	Fecal Bacteria	60%	D-	⚠
Remediation Indicators (Qualitative)	Toxics Remediation	64%	D	↑
	Trash Reduction	73%	C	↑

Legend

↑	Improving
⚠	Needs Attention
↔	Static

OVERALL GRADE 67% D+ ↑

Our Mission

The mission of the Anacostia Watershed Society is to protect and restore the Anacostia River and its watershed for all who live here and for future generations. We do this through field conservation and restoration programs; policy advocacy to advance laws and regulations that prevent pollution and promote investment in restoration; adult and youth education in the classroom and in the field to inspire and equip present and future watershed stewards; and volunteer, outreach, and recreation programs to connect local communities with the rivers and wetlands of the Anacostia watershed.

The challenges

Although the score for **fecal bacteria** improved over the last year from **53%** to **60%**, levels remain high in parts of the Anacostia River, despite the dramatic reduction in sewer overflows as a result of the completion of DC Water's Anacostia River Tunnel. This contamination is caused by sewage discharges and leaks, as well as pet and wildlife waste.

The Anacostia watershed continues to suffer from the historic loss of wetlands and forests that once protected rivers and streams from excessive runoff, sediment, and pollution. **Climate Change** will inevitably heighten these challenges and threatens to offset the gains we've made over the last 30 years. More frequent and intense rain events and sea level rise can increase pollution levels, reduce aquatic vegetation and aggravate stormwater runoff.

Highlights

- The river's water quality grade received a boost this year due to healthy growth of submerged aquatic vegetation (SAV).
- Parameters are showing steady improvement in Trash, Toxics, Chlorophyll a, and Water Clarity.
- Parameters that remain sluggish include Fecal Bacteria, Dissolved Oxygen, SAV.
- Significant progress by the District Department of Energy and Environment in addressing toxic pollutants at the river's bottom are steadily improving the score for Toxics Remediation.
- In the most southern section of the tidal Anacostia, water clarity received its highest grade ever and it the first passing grade.
- Over the past decade, SAV acreage has been inconsistent, fluctuating between scores of 5% and 100%. It is likely that SAV acreage in some years is influenced by poor/decreased water clarity in early spring. This instability indicates that improved land management and strategies like green infrastructure supporting increased water clarity will likely result in more stable SAV acreage.

Next steps and solutions

While there is great progress in controlling threats to water quality such as sewage and industrial toxics, the Anacostia watershed continues to suffer from the historical loss of wetlands and forests that once protected our rivers and streams from excessive run-off, sediment, and pollution. Climate change will heighten these challenges, and indeed threatens to roll back the gains we've made over the last 30 years. The Anacostia Watershed Society urges further, comprehensive efforts to conserve and restore wetlands and forests, reconnect floodplains with the river and streams of DC, Montgomery County and Prince George's County, and ensure climate resilience.

What AWS is doing to improve water quality

Mussel Restoration: Freshwater mussels are a vital component of a healthy Anacostia River. As filter feeders, freshwater mussels help improve water quality. One adult mussel can filter 10-20 gallons of water each day, and since 2019 AWS has released over 36,000 mussels of five native species into the Anacostia river.

Wetlands restoration: There is a reason wetlands are called the kidneys of the river - these ecosystems filter out sediments, toxins, litter, and other pollutants from the river. In addition to improving water quality, thriving wetlands sequester carbon, helping to reduce greenhouse gasses. Since the early 2000's, AWS has worked hard to restore over 35 acres of tidal wetlands in the Anacostia river. Just in the last two years wild rice acreage at Kingman Lake has more than doubled as a result of our work.

Riparian forest restoration: Forests along the banks of the river, also known as riparian forests, are another essential ecosystem in our watershed. Riparian forests help stabilize the riverbanks, filter and/or slow down stormwater, sediment and pollutants; and provide habitat for wildlife. Since 2017, we have planted over 800 native trees in areas that were severely affected by an invasive beetle known as Emerald Ash Borer (EAB) which wiped out all the mature ash trees from these forests. We are planting native tree species (excluding ash trees) that are adapted to the moist-wet soil conditions of these riparian forests.

What gets measured?



Stormwater
Runoff

Stormwater Runoff is the fastest growing source of pollution in the watershed. 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 flow is the same as averaged values from recorded historical levels (1938-1942).



Chlorophyll a

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



Water Clarity

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 (1.3 meters).



Submerged
Aquatic
Vegetation

Submerged Aquatic Vegetation requires light to thrive and is essential habitat for aquatic life. A score of 100% means that the Anacostia River has at least 20 acres of SAV bed. Over the past decade, SAV acreage has fluctuated between 5% and 100%. Likely due to poor water clarity in early spring. This indicates that improved land management and green infrastructure is necessary to support increased water clarity, which will then likely result in more stable SAV acreage.



Dissolved
Oxygen

Dissolved Oxygen is critical for the survival of aquatic life and ecosystem sustainability. A score of 100% means that the water is equal to or more than 5mg/L of oxygen all the time. According to 2023 data, the long-term trend indicates that immediate attention is needed.

To arrive at the overall grade for water quality in the Anacostia River, the Anacostia Watershed Society (AWS) evaluates and grades each of three sections of the 9-mile tidal river from Bladensburg, MD to its confluence with the Potomac. We monitor key indicators including Dissolved Oxygen, Fecal Bacteria, Water Clarity, and Chlorophyll a. AWS uses the average score of each of these indicators to determine the river's overall grade.

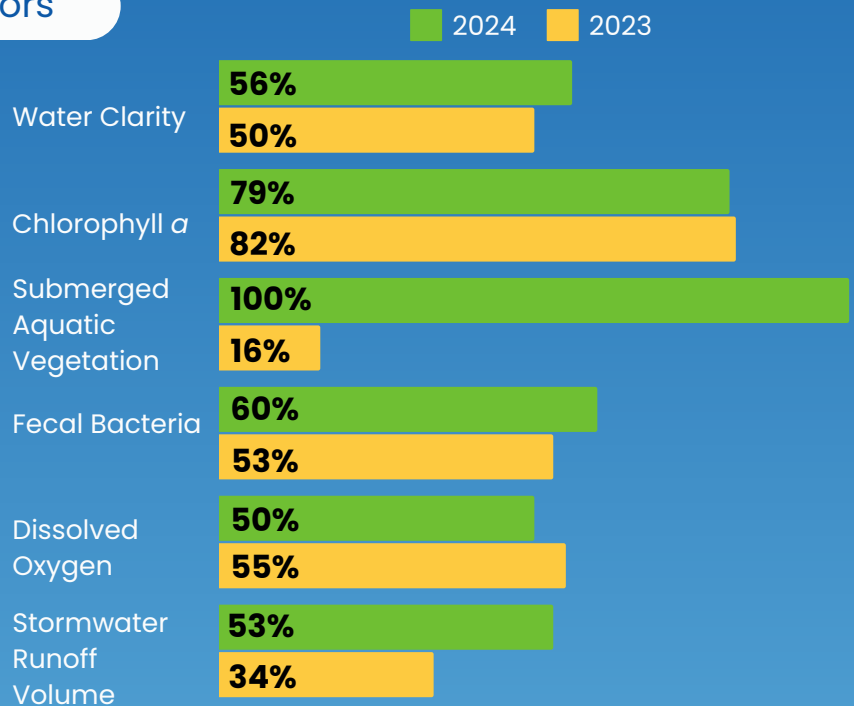
Assessment for Submerged Aquatic Vegetation (SAV), Stormwater Volume Runoff, Toxics, and Trash is conducted for the entire tidal Anacostia River. These parameters will also be considered to give a percentage score (%Score) and grade for each section and the entire river.

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OVERALL GRADE : **(PASS) D+**

Water Clarity Indicators



Remediation Indicators

