Strategic Plan for Lowering Anacostia Sewage, Sediments, and Hazards (SPLASH)

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Mission:

The mission of the SPLASH initiative is to analyze the human and industrial impact on the Anacostia River Basin and develop strategies to address the discovered issues. Through our recommendations, we seek to reduce toxic pollution by 50%, harmful bacteria from CSO overflows by 75%, and repair riparian buffer coverage by 30%.

Background:

The Anacostia River winds through southern Maryland and eastern Washington D.C., serving as one of the most historically and ecologically significant waterways in the mid-Atlantic region. Its watershed spans over 150 square miles across Montgomery and Prince George's Counties in Maryland before flowing into the heart of the nation's capital, where it meets the Potomac River. This vast watershed provides drinking water for over 800,000 residents, making the health and sustainability of the river a critical public concern for the greater D.C. metropolitan area.

Despite its importance, the Anacostia has suffered dramatic environmental losses over the centuries. The river has lost over 6,500 acres of wetland — vital ecosystems that once filtered pollutants, controlled flooding, and provided habitat for a rich diversity of wildlife. Alongside this, approximately 70% of the river's forest cover has been stripped away due to urban development and land conversion, further degrading water quality and accelerating runoff and erosion into the river.

The roots of the Anacostia's environmental struggles run deep. Since the early 1600s, when European settlers first established trade routes and agricultural operations along its banks, the river has been subjected to increasing human pressures. Over the following centuries, it became a hub of industrial activity and transportation, with mills, factories, and shipping operations dramatically altering its natural character. Today, the legacy of this prolonged exploitation persists in the form of contaminated sediment, stormwater pollution, and ongoing development pressures, challenges that communities, scientists, and policymakers continue to grapple with in efforts to restore the river to a healthier state.

History:

The Anacostia river was first documented by Captain John Smith in 1608 while journeying up the Potomac.[1] There, he encountered the Nacotchtank people, who lived along the river. Smith believed the Anacostia to be a branch of the Potomac, an idea reflected on maps of the era, labeled "Eastern Branch of the Potomac River."[1]

The Nacotchtank were a group of Algonquin Native Americans who lived at the intersection of the Potomac and Anacostina. Their name derives from the Piscataway word "anaquashatanik" meaning "village of traders," reflecting their pension for trading, generous nature, and success in agriculture.[2]

Nacotchtank slowly got converted to Anacostine by European settlers in the area. As the tobacco industry in eastern Maryland became more fruitful, the Nacotchtank people were forced out of their land. They were last spotted in the late 1600s.[2]

In 1785, George Washington initiated the Potowmack Company to improve the navigability of the Potomac and Anacostia. The initiative was supported by politicians and local business men because it would allow for easier trade and transportation into local cities. No progress was made until 1802 when congress granted a charter to the Washington Canal Company. Still, little progress was made by 1809 when Congress created a new canal company and issued $100,000 (2 million in 2026 currency). Construction started in 1810 and despite being paused by the War of 1812, was finished in 1815.[3]

The construction of the canal created the first major sources of pollution in the river. Little to no actions were taken during the construction to prevent pollution and maintain the natural coverage. During operation, it regularly flooded due to a shallow design. By the time the Civil War started, the canal had fallen into disrepair. It was being used as Washington D.C's storm drain and sewage system. In 1871, efforts started to fill in and pave over sections of the canal and by the 1920s it was completely gone.[3]

During the Civil War, the treeline along the river was clearcut to build forts. In this time period, extensive pollution occurred. Excess foliage and wood, animal fat and carcasses, and spent oil were dumped with no regard. This raw sewage persists to this day and is the primary reason why the Anacostia is so polluted to begin with.[4]

Governance:

The Anacostia River watershed is governed through a layered network of intergovernmental partnerships, federal agencies, and non-governmental organizations. Decades of investment in restoration efforts are paying off in terms of water quality, fish and wildlife habitat, and recreational opportunity, but significant challenges remain. Governance is characterized by strong horizontal collaboration at the regional level, robust NGO advocacy, and an evolving, and often contentious, relationship with the federal government.

Collaborative governance of the watershed can be traced back to the 1987 Anacostia Watershed Restoration Agreement which established the Anacostia Watershed Restoration Committee (AWRC), comprising local governments of DC and Maryland, and was tasked with developing a committee structure to facilitate agreement of goals, establishing a process for the development of a work plan for restoration activities, providing a framework for the evaluation of pollution control efforts by monitoring water quality, and instituting mechanisms for tracking the progress and ongoing reporting.[5] The projects that followed were rather uncoordinated and consisted mostly of individual wetland restoration projects, the first of which was completed in 1993 at Kenilworth Marsh by the US Army Corps of Engineers.[6] These projects were directed by the Anacostia Six-Point Action Plan, developed by the AWRC. The six points identified are: 1) Reduce pollutant loads, 2) Protect and restore the ecological integrity of the Anacostia River and its streams to enhance aquatic diversity, 3) restore the natural range of resident and anadromous fish to historical limits, 4) Increase the natural filtering capacity and habitat diversity of the watershed, 5) Protect and expand forest cover throughout the watershed and create a continuous riparian forest buffer, and 6) Increase citizen and private business awareness of their vital role in both cleanup and economic revitalization of the watershed.[7] As the role of the AWRC was refined to pursue improvements guided by these six points, it was restructured into the Anacostia Watershed Restoration Partnership (AWRP) in 2006. The AWRP remains committed to these six objectives and is the primary source of watershed governance for the Anacostia River.

The Partnership is a collaboration between governments, communities, and the private sector for shared restoration efforts and is housed at the Metropolitan Washington Council of Governments (COG). It operates through three committees: a Steering Committee that sets overall direction and guides policy, program, and financial oversight; a Management Committee; and a Community Advisory Committee made up of watershed residents and stewards who advocate for restoration. The Steering Committee meets quarterly and includes senior officials from Montgomery County, Prince George's County, and DC's Department of Energy and Environment (DOEE). By the end of 2018, over 9,000 restoration projects had been completed in the ground.[8] A publicly accessible live dashboard tracks restoration progress, serving as a key transparency tool that allows constituents, policymakers, and NGOs to monitor milestones and hold partners accountable in real time.[9]

The commitments laid out by the 1987 Anacostia Watershed Restoration Agreement were more recently renewed by the same governmental bodies via the 2016 Anacostia Accord, signed by DC, Montgomery County, and Prince George's County under the motto "Celebrate Progress, Increase Collaboration, Inspire Community."[10] This accord specifically highlights the desire to reduce the amount of trash that accumulates in the Anacostia River. It prioritizes reduction of litter, promotion of green infrastructure, litter awareness campaigns, and "vigorous" enforcement of anti-trash measures. At the District level, the DC DOEE administers the Anacostia River Clean Up and Protection Fund, which supports wetland restoration, green infrastructure, community cleanup events, and a public-facing website tracking cleanup progress.[11] DC's Sustainable DC Plan also commits the District to making its waterways 100% fishable and swimmable, giving the Anacostia a concrete policy anchor within city government.[12]

As the United States Capitol's watershed, one expects federal involvement, though its role is historically complicated by the federal government's contributions to the Anacostia's pollution. Following the identification of the Anacostia River among the worst in the country impaired by trash pollution, the EPA enforced a Total Maximum Daily Load of trash on the watershed in 2010, only the second time the agency had done so.[13] The first was the Los Angeles River Watershed, which was targeted in 2001.[14] This means that the EPA enforced a measurable target for the AWRP and other organizations. The target is 100% removal of the baseline annual trash load, the average annual load calculated from two years of field monitoring at storm drain outfalls and in-stream transects. With a 5% explicit margin of safety added on top, the total daily removal obligations across the watershed are as follows: Montgomery County: 889.5 lbs/day, Prince George's County: 1,904.4 lbs/day removed, DC Upper Anacostia: 484.7 lbs/day removed, and DC Lower Anacostia: 180.3 lbs/day.[15] The EPA has also pursued Clean Water Act enforcement actions against industrial polluters; most notably, the Department of Justice and EPA reached a 2017 settlement with Pepco requiring best management practices to reduce metals in stormwater and a $1.6 million civil penalty.[16]

However, tension between the federal and local governments has been a significant feature of the Anacostia Watershed's Management. DC's Attorney General sued the federal government in 2025, alleging that for over 150 years it used the river as a cost-free dumping ground for toxic waste, including cancer-causing PCBs from the Washington Navy Yard and chemical waste from the Bureau of Engraving and Printing, and that cleanup efforts set to begin in 2025 have been met with federal refusal to accept financial responsibility. This ongoing dispute underscores a structural weakness in watershed governance: the federal government is simultaneously a key restoration partner and the single largest historical polluter.[17]

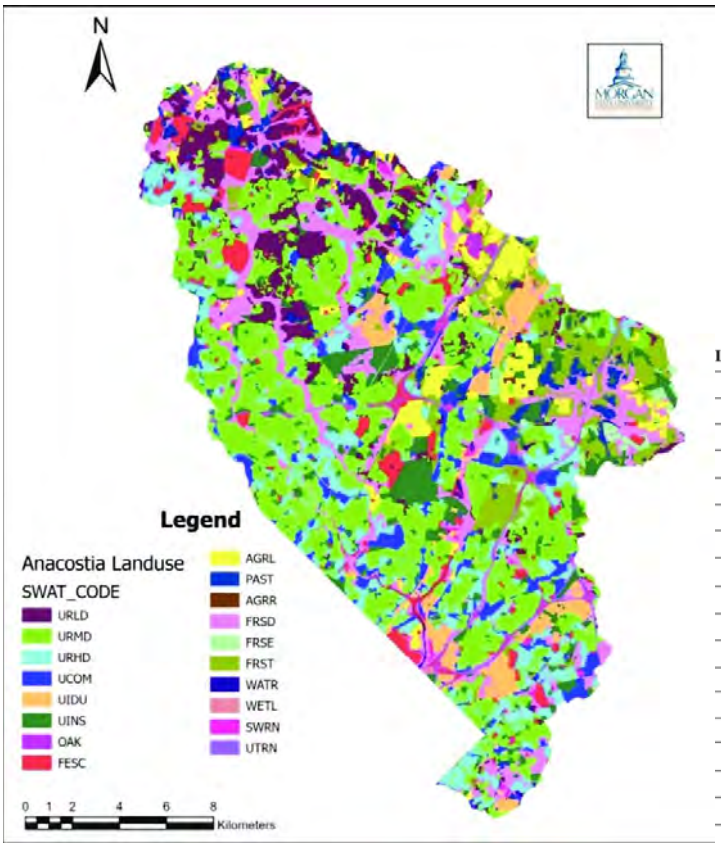
Two NGOs form the backbone of civil society engagement in the watershed. The Anacostia Watershed Society (AWS), founded in 1989, is the watershed's oldest and largest environmental organization. AWS staff and volunteers engage in daily field work alongside natural resource

agencies and academic institutions, monitoring water quality and trash pollution, restoring wildlife and plant populations, planting trees, removing invasive species, and promoting habitat restoration across the watershed.[18] The Anacostia Riverkeeper, established in 2008, plays a complementary but distinct watchdog role. As a member of the Waterkeeper Alliance, Anacostia Riverkeeper sits on numerous community groups and advisory panels hosted by DC and Maryland governments, serving as a community voice on the watershed's most pressing legislative and regulatory issues.[19]

The Anacostia Watershed's multi-level and long-established governance structure is strong, especially compared to other watersheds of similar size. Additionally, the implementation of the live dashboard sets the Anacostia apart, where transparency is a key area of concern. Additionally, the breadth for NGO involvement over decades is commendable and certainly has been a major driver of improvement and will be a requirement for sustainability in the future. However, key gaps remain. Federal accountability is the most glaring: the ongoing lawsuit reveals that no governance structure has yet compelled the federal government to fully internalize its cleanup responsibilities as a major contributor to the watershed's current state.

GIS Mapping:

As Detailed in the GIS area map for the Anacostia, the majority of land use in the watershed is residential/urban development. There is also a notable percentage of agricultural and industrial usage.



LU - Code	SWAT Code	Description
11	URLD	Low-density residential
12	URMD	Medium-density residential
13	URHD	High-density residential
14	UCOM	Commercial
15	UIDU	Industrial
16	UINS	Institutional
17	OAK	Extractive
18	FESC	Open urban land
21	AGRL	Cropland
22	PAST	Pasture
25	AGRR	Row Crops
41	FRSD	Deciduous forest
42	FRSE	Evergreen forest
43	FRST	Mixed Forest
50	WATR	Water
60	WETL	Wetlands
73	SWRN	Bare ground
80	UTRN	Transportation

Figure 1: GIS map of the Anacostia watershed region in Maryland [8]

The Anacostia watershed spans over part of the District of Columbia, Prince George, and Montgomery Counties.

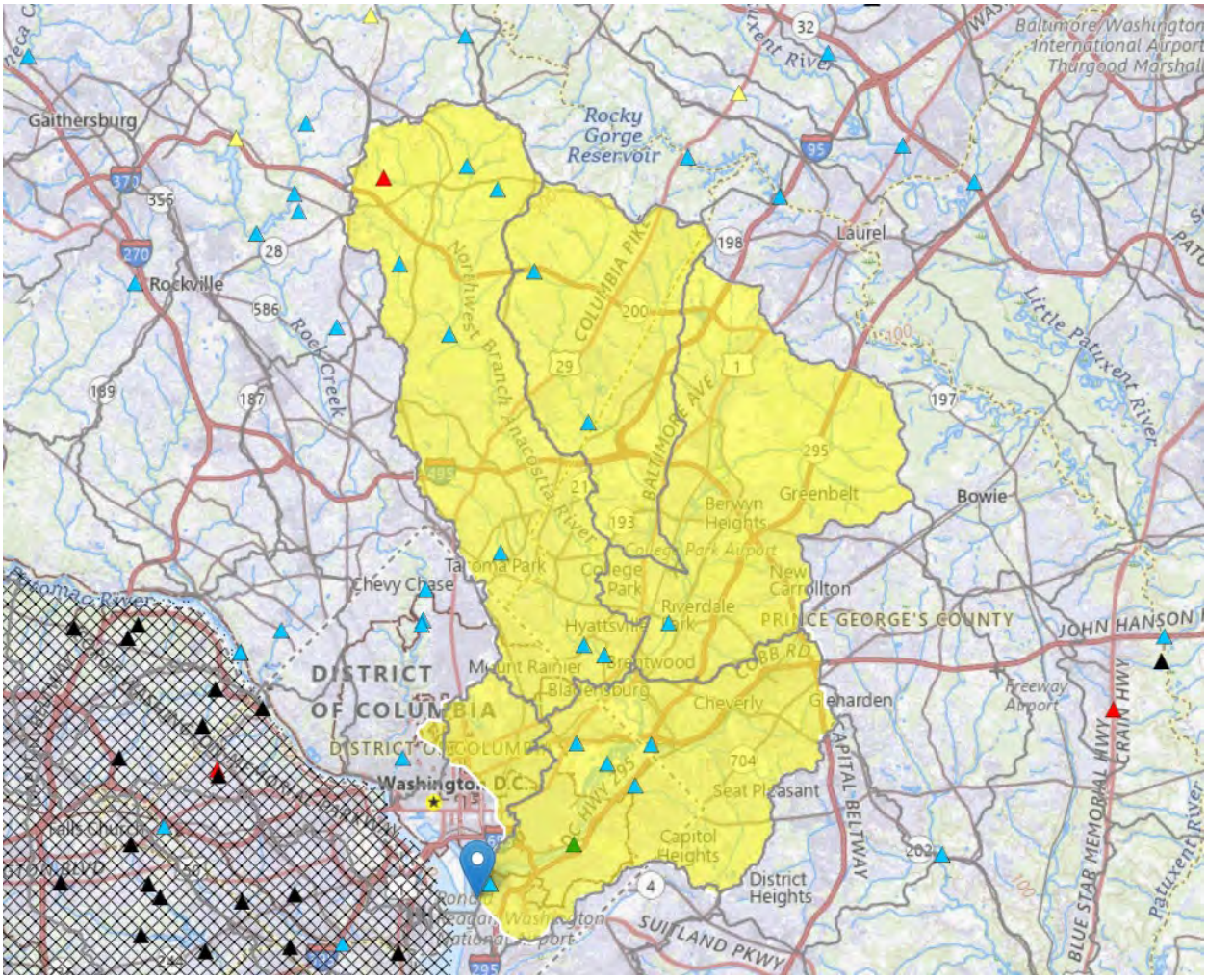


Figure 2: Streamstats delineation of the Anacostia watershed[19]

Drainage Area: 173 mi^2

Impervious Cover: 35.4%

Soil Type C/D: 55.5%

Forest Cover: 19.46%

Problems & Goals:

Problem 1: Toxic Pollution in the Anacostia Watershed

Goal: Reduce toxic pollution by 50% over the course of the plan

The Anacostia River carries one of the most complex toxic contamination profiles of any urban waterway in the United States. Studies conducted as part of the Anacostia River Sediment Project have concluded that elevated concentrations of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), dioxins, heavy metals, and pesticides from industrial, urban, and human activities are present in sediments throughout the river, posing risks to both humans and aquatic wildlife.[20] A 2019 USGS study of tributary loads found that in a single year, tributaries delivered an estimated 820 grams of PCBs and 89,000 grams of PAHs to the river, with Little Beaver Dam Creek (LBDC) contributing 75% of the PCB load despite representing only 10% of the contributing basin area.[21] These results confirm that diffuse upstream contamination drives watershed-wide toxicity. These contaminants do not remain in sediment: a fish consumption ban was imposed by the District of Columbia due to PCB and pesticide contamination in fish tissue, and DC's DOEE advises the public not to eat eel, carp, striped bass, or largemouth bass from the river due to high contaminant levels.[22] The health consequences are serious, as PCB exposure is associated with immune, reproductive, endocrine, and neurological effects, and may cause cancer and impair children's cognitive development.

Compounding legacy contamination is an emerging crisis of PFAS ("forever chemicals"). Anacostia Riverkeeper sampling found 8–10 different PFAS chemicals in six samples from the river, with measurable PFOA concentrations ranging from 3.5–8 parts per trillion (ppt) — far exceeding the EPA's advisory limit of 0.004 ppt, and PFOS concentrations of 4.7–7.7 ppt against an advisory limit of 0.002 ppt. A significant source is Joint Base Anacostia-Bolling, where Environmental Working Group sampling documented substantial PFAS concentrations attributable to the long-term use of PFAS-laden firefighting foams at military installations.[23]

Litigation has been a productive tool utilized to take steps to improve water quality. The Anacostia Watershed Society's 1996 lawsuit forced the U.S. Navy to undertake an $18 million PCB cleanup of the riverbed, and the EPA's 2017 Clean Water Act settlement with Pepco required a $1.6 million civil penalty and installation of in-pipe treatment systems to eliminate metal-laden stormwater discharge.[24,25] DC's Attorney General has now sued the federal government under CERCLA for over 150 years of contamination at the Washington Navy Yard, Bureau of Engraving and Printing, and Kenilworth Landfill. DC DOEE's 2020 Interim Record of Decision for the Anacostia River Sediment Project outlines early action cleanup remedies targeting the most contaminated PCB-laden areas, with the 100% Design Report released in summer 2025.[26]

Problem 2: Combined Sewage Outflow (CSO)

Goal: Reduce harmful bacteria resulting from CSO by 75%

The Anacostia River suffers from an aging and outdated sewage system, up and downstream. Built in the early 1900s, the sewage system causes frequent overflows, bringing untreated sewage into the drinking water. On average, the system overflows 84 times, dumping 2.1 billion tons of untreated sewage a year. This sewage causes concerns over public health, as the influx of bacteria can cause sickness. The flooding itself causes issues; in August 2023, 10 dogs died after the sewage system overflowed in a daycare.

Efforts are currently ongoing to improve the system. In February 2000, the Anacostia Water Society, Friends of the Earth, and other groups filed lawsuits against the governments of Prince George County and Washington D.C over the sewage. The claim was that the condition of the sewers was a violation of the Clean Water Act. As a result, the city has started installing river tunnels to catch sewage and garbage. The first tunnel opened in 2018 and has collected an estimated 15 billion gallons of sewage and 9,800 tons of trash. 90% of the raw sewage entering the city is removed by this tunnel. The second tunnel opened in 2023 and brings the percentage of sewage removed to 98%. Further tunnels are planned up and downstream, the Potomac and Rock Creek are planned to open tunnels in 2030.

Bacterial contaminations remain an issue in the Anacostia. Upstream sampling in 2020 measured levels of *E. coli* higher than acceptable limits in 45% of samples. The highest levels were found in the summer, after heavy levels of rain. The reason for this is the impervious surface cover. Bacteria can't penetrate and be retained by impervious cover, flowing into the river.

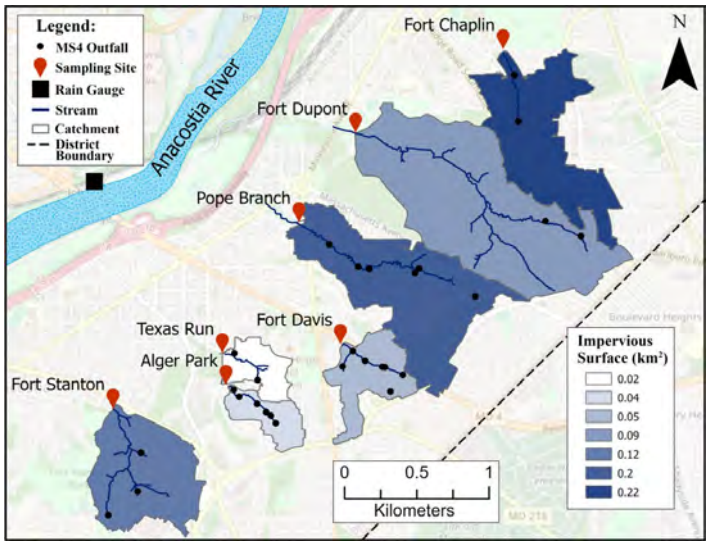


Figure 3. Map of impervious surface coverage on the Southeastern bank of the Anacostia

Problem 3: Habitat loss due to urbanization

Goal: Increase Riparian Buffer coverage by 50%

The Anacostia is negatively affected from habitat loss due to urbanization, this includes loss of riparian buffers, channelization, and a widespread increase in impervious surface within the watershed. Previously the watershed had thousands of acres of wetlands, but deforestation, urbanization, and wetland loss has significantly degraded the habitat and biodiversity[17]. Impervious cover in place of wetland increases runoff that carries sediment, trash and pollutants into the river[17].

On average these negative changes to the watershed increases water velocity in storms, raises water temperatures, and heightens drought susceptibility. The excess sediments bury underwater habitats, and pollutants harm aquatic ecosystems.[17] The river has historically been altered greatly from its natural state through dredging for navigation and flood control which disrupts the natural state of the ecosystem.[17] Mussels, shad, and other native species populations have rapidly declined due to human action in the area.[17] For example a flash flood in Watts Branch caused bank collapse and killed fish downstream which is directly related to a loss of riparian buffer habitat.

Efforts are currently being made to restore habitat. The Anacostia Watershed is supported by the Urban Waters Federal Partnership (UWFP), a collaboration unit of 15 federal agencies who work to restore urban waterways.[1] This partnership reverses the impact of rapid urbanization in 20 areas including the Anacostia. Further progress could be made utilizing the EPA's Brownfield Program which provides grants for assessment, cleanup and job training on properties with perceived contamination that aren't severe enough for superfunds. Along the Anacostia there's many examples of brownfield sites, like former industrial sites, landfills, and abandoned facilities. One potential area these funds could be utilized is sections of Kenilworth Park and former manufacturing sites along the river's tributaries. These locations could utilize Brownfield funding to undergo transformation into riparian buffers, wetlands, or public green space. Brownfields would provide revolving loan funds and area-wide planning grants. The UWFP encourages utilization of these brownfield funds as a tool for habitat restoration and community revitalization in urban watersheds like the Anacostia[17]. SPLASH can achieve its goal of increasing riparian buffer coverage by 30% while simultaneously addressing legacy contamination that continuously impairs water quality.

Habitat fragmentation is a huge issue resulting from urbanization in the Anacostia. The Anacostia River Report Card grades the river as a D in quality. Fish population and submerged aquatic vegetation acreage still come in below targets.[6] Bacterial contamination prevails in the river and fish consumption advisories persist due to PCBs and other toxins. This could be remediated from connection of habitat corridors along the river and its tributaries. Through holding polluting parties responsible for cleanup and restoration we can take actions to achieve

this very remediation. The highest fragmentation occurs in headwater streams; these small fragile tributaries are key places for return of restoration investment. Through dam removal, buffer zone development, and brownfield remediation these headwater habitats can be reconnected helping restore continuous habitat for remedial species which is key to help the watershed recover.

Recommended Actions

1. Regulatory Focus on Diffuse Upstream Contamination

Point-source enforcement has yielded clear results, but the USGS tributary data demonstrate that diffuse, non-point contamination from upstream subwatersheds especially LBDC remains the dominant driver of PCB loading.[27] The plan should advocate for strengthened stormwater permits (MS4 permits) in Montgomery and Prince George's Counties that include specific numeric limits on PCB and PAH loads, not merely best-management-practice requirements. Requiring upstream jurisdictions to implement source tracking, identifying which land uses and legacy sites are generating the highest loads, is a prerequisite for targeted regulatory intervention.

2. Federal Legislation for PFAS and Emerging Contaminants

DC DOEE's Anacostia River Sediment Project remediation plan, finalized in 2025, is largely aimed at PCB contamination and leaves out PFAS contamination that has been documented in the watershed — a gap that Anacostia Riverkeeper has formally challenged as rendering the remediation plan "already outdated before it's even constructed." The Clean Water Standards for PFAS Act, introduced in 2021, would require the EPA to set new standards under the Clean Water Act for at least nine industry categories known to discharge PFAS into the environment, helping stop contamination at the source.[28] The plan should formally support this legislation, or equivalent state-level action in DC and Maryland, to ensure the next generation of cleanup planning addresses PFAS. This is especially urgent given that the current EPA, under the Trump administration, has signaled it will delay compliance deadlines for PFOA and PFOS drinking water rules and rescind standards for four other PFAS compounds, leaving watershed managers without a reliable federal backstop.

3. Expand Riparian Buffers, Wetlands, and Nature-Based Filtration

Riparian buffers and restored wetlands intercept contaminants before they reach the river channel, functioning as low-cost, self-sustaining treatment systems. Research demonstrates that constructed wetlands can reduce PAH and PCB concentrations in stormwater runoff by sequestering hydrophobic contaminants into organic-rich soils, where microbial communities can begin breaking them down. In situ activated carbon treatment of sediments has been shown to be 75–95% effective for reducing PCB and PAH bioavailability and can be incorporated into wetland and buffer restoration designs along heavily contaminated reaches.[29] The plan should set a target

of expanding riparian buffers by at least 500 additional acres across the watershed, prioritizing the LBDC subwatershed given its disproportionate PCB contribution.

4. Bioremediation to Address Sediment PCBs and PAHs

In situ bioremediation, stimulating indigenous microbial communities to degrade legacy sediment contaminants, offers a scientifically promising and cost-effective complement to dredging. Research using Anacostia River sediment microcosms directly has shown that biostimulation and bioaugmentation enhanced dechlorination of historical PCBs at concentrations typical of the river (2.1 mg PCBs/kg dry weight), supporting its applicability at the site level.[30] More broadly, bioaugmentation using bacterial consortia has achieved 80–85% biodegradation of PCB indicator congeners in contaminated river sediments in controlled trials, though field-scale performance depends on site-specific conditions including temperature, pH, and sediment organic content.[31] A promising emerging approach uses sequential anaerobic-aerobic treatment: anaerobic bacteria first dechlorinate highly chlorinated PCB congeners into less toxic forms, which aerobic bacteria then mineralize. Planted systems using switchgrass (*Panicum virgatum*) and poplar (*Populus deltoides* × *nigra*) subjected to alternating flood-drain redox cycles demonstrated superior PCB reduction over 32 weeks, suggesting that phytoremediation integrated with managed wetland hydrology could be deployed along Anacostia riparian zones.[32] The plan should fund a pilot in situ bioremediation demonstration at a high-priority Potential Environmental Cleanup Site (PECS) identified by the Anacostia River Sediment Project.

5. Promote Sustainable Agriculture in the Upper Watershed

Although the lower watershed is predominantly urban, the upper reaches of the Northwest and Northeast Branches drain agricultural land in Montgomery and Prince George's Counties, where pesticide application, fertilizer runoff, and soil erosion contribute to both nutrient and toxic contaminant loading. Sustainable agriculture practices, including cover cropping, no-till farming, integrated pest management, and riparian buffer maintenance, measurably reduce the transport of pesticides and sediment-bound contaminants to streams. The plan should engage Maryland's Agricultural Cost-Share Program and relevant USDA NRCS programs (particularly the Environmental Quality Incentives Program, EQIP) to increase adoption of these practices in Anacostia subwatersheds, with a targeted focus on farms adjacent to the highest-loading tributaries identified in USGS monitoring data.

Economics & Investments:

The Anacostia River watershed has historically been an economic liability as much as an asset. The watershed has lost 6,500 acres of wetlands and 70% of its original forest cover, and communities along the river suffer some of the region's lowest employment rates, highest poverty rates, and poorest health indicators.[33] Loss of habitat, erosion, toxic pollution, and destruction of wetlands have eliminated river-based recreational opportunities such as boating, fishing, and swimming that once sustained the local economy and quality of life. As restoration has progressed, however, the river's improving condition is beginning to generate economic returns, though not without tension: some residents fear displacement caused by gentrification as the river improves, a reminder that ecological investment and economic equity do not automatically align.

The single largest investment in the watershed is DC Water's Clean Rivers Project, a multi-decade, $2.99 billion infrastructure program of which the $580 million Anacostia River Tunnel, completed in 2023.[34] The tunnel has achieved a 98% reduction in combined sewer overflows (CSOs) into the river, with the recently completed tunnel project reducing sewage overflow by 98%, at a cost borne entirely by District taxpayers, exceeding $1.8 billion for the sewer modernization program as a whole. This investment directly underpins the goal of making the Anacostia swimmable and fishable, which would unlock significant recreational and tourism economic activity.

Wetland and habitat restoration represents a distributed but substantial category of investment. DC DOEE has funded over 57 acres of wetland restoration, while the Anacostia Watershed Society (AWS) has restored more than 12 acres through project-level grants and volunteer labor.[35] AWS also leads the Anacostia Riparian Meadow Restoration (ARMR) program, an experimental effort begun in 2007 to establish native herbaceous plant communities in floodway areas where reforestation is restricted by stream channel engineering constraints, with sites along the Northwest Branch in Hyattsville and at Bladensburg and Kingman Island.[36] These meadow habitats provide wildlife corridors, reduce stormwater runoff, and enhance the aesthetic value of the Anacostia trail system, generating indirect economic benefits through improved recreational access and natural amenity value for adjacent neighborhoods.

Mussel restoration represents a smaller but ecologically significant investment. A 2018 U.S. Fish and Wildlife Service grant of $33,000 seeded an AWS-led initiative to reintroduce native freshwater mussels, which are natural water filtration agents. A follow-on $400,000 grant from DC DOEE in 2019 funded continuation of the program.[37] Though modest in dollar terms, mussel restoration provides a cost-effective water quality benefit and serves as a biological indicator of the river's long-term recovery trajectory.

Taken together, these investments reflect a watershed-scale restoration economy that spans large public infrastructure, mid-scale government grants, and small-scale NGO-led ecological projects. The central economic challenge going forward is ensuring that the measurable improvements in water quality, recreational access, and biodiversity translate into broadly shared community benefits, rather than accelerating displacement of the low-income residents who have borne the greatest burden of the river's degradation.

Conclusions:

The SPLASH initiative highlights that the process of improving the condition of the Anacostia River is associated with a series of interrelated problems related to toxic pollution of sediments, sewage overflows, and loss of natural habitats because of urban development. This interrelation of problems can be helpful however, because in selecting the right management practices treating one issue can be compounded to have a positive impact on multiple other issues. Despite a long history of degradation caused by industrial activities, inadequate land management practices, and the presence of contaminants such as PCBs, PFAS, and elevated levels of bacteria, efforts by all parties involved and significant financial contributions in terms of developing sewage tunnels and wetland rehabilitation have led to noticeable changes for the better. However, in order to fulfill the objectives outlined in the plan, it is necessary to deal with diffuse pollution in the area upstream, develop a new regulatory framework, expand riparian zones, implement innovative measures like bioremediation, etc.

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