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1 SNOW AND ICE REMOVAL PLAN 2025

Background
In response to Section 2.6 (Development of Alternatives for Ice and Snow Management) of the previous permit (NPDES DC0000221, expiration June 2023) DOEE and DPW jointly developed a pilot study to test alternative treatment scenarios that could be incorporated into standard snow removal practices within the District. Due to an insufficient number of qualifying weather events before the permit expired, the subsequent (i.e. current) period (NPDES DC0000221, expiration Dec 2028) extended the duration of the pilot study through winter 2024/25.

Pilot Study Design
The pilot study was designed to be implemented during events forecasting trace to 2" of ice, freezing rain, slush, and/or wintery mix (i.e. during events plowing is not expected to occur). The intent was that the pilot would be repeated during at least five (5) events with the first event being used as a test to refine applications rates for the remaining pilot events.

A total of six (6) routes were selected by DPW for pilot implementation as follows:

- Heavy Plow Route 34 – Rock Salt (Control)
- Heavy Plow Route 35 – Magnesium Chloride Brine application
- Heavy Plow Route 36 – Calcium Magnesium Acetate (CMA) application
- Heavy Plow Route 68 – Rock Salt (Control)
- Heavy Plow Route 67 – Magnesium Chloride Brine application
- Heavy Plow Route 66 – Calcium Magnesium Acetate (CMA) application

One (1) continuous water quality sensor was installed along each route to monitor stormwater run-off.

Implementation Summary
The pilot was implemented, to the extent possible, on an annual basis between 2019 and 2025. Only two (2) qualifying events were forecast during that time (one (1) in winter 2021/22 and one (1) in winter 2024/25). The pilot was implemented for both events. However, the precipitation during the second event (winter 2024/25) did not materialize as forecast , negating its success in regard to data collection.

Conclusions and Lessons Learned
Water Quality Impact
The results of this pilot indicate that stormwater run-off from routes where CMA or brine has been applied *may* produce better water quality results than stormwater run-off from routes where rock salt has been applied. However, due to lack of qualifying events, there is not sufficient data to make statistically significant conclusions.

Operational Feasibility
In addition to the general logistical difficulty of weather-based activities, DPW encountered a number of operational challenges associated with implementing this pilot, including identifying necessary equipment and staff to load alternative materials and identifying and training drivers on alternative de-icing materials.

Next Steps
Due to insufficient weather events, operational challenges, and new budgetary constraints (i.e. lack of resources for additional CMA purchases), it has been determined that the use of chloride-based road salts cannot be eliminated from DPW de-icing practices at this time.

Salt truck drivers will continue to receive annual training on salt-related best practices (i.e., appropriate amount of salt to be distributed, good housekeeping at loading facilities, etc.). In addition, DOEE will work together with DPW and other sister agencies to identify different approaches to reducing adverse road salt impact on local water quality.

2 BROAD BRANCH ILLICIT DISCHARGE INVESTIGATION

During the 2024-2025 reporting period, DOEE implemented an illicit discharge source tracking investigation into the human sources of E. coli identified in DOEE's Microbial source tracking (MST) study as impacting the Broad Branch monitoring station.

Source tracking investigations performed by DOEE staff utilize investigation techniques implemented in a phased approach based on adaptive management. Each phase is dependent on the results of the previous phase of work. DOEE selected the specific techniques utilized in the Broad Branch source tracking investigation based on experiences with previous sanitary source tracking investigations. These investigative techniques included:

- Conducting a desktop study,
- Creating an ArcGIS Investigation Map,
- MS4 outfall inspection, sampling, and monitoring,
- Continuous photo monitoring,
- MS4 manhole inspection, sampling, and monitoring,
- Closed-caption Television (CCTV) surveying, and
- Dye Testing.

The source tracking investigation has identified several sources of E. coli that DOEE is in the process of eliminating.

The following activities were completed in 2024:

- Identified funding source to be allocated over the permit term to complete investigation tasks.
- Coordinated and conducted quarterly meetings with DC Water.
- Conducted a desktop study of the available studies and data on the Broad Branch investigation area, including;
  - Reviewed available MST studies
  - Reviewed monitoring data
    - MS4 Dry Weather Outfall
    - MS4 Permit E. coli monitoring data
    - Citizen scientist E. coli monitoring data
  - Reviewed illicit Discharge reports and investigations
  - Reviewed critical Source inventory and inspections
- Drafted source tracking investigation plan based on the findings of the desktop study.
- Created ArcGIS Field Investigation Map and data collection Apps.
- Purchased field testing equipment to support the investigation.
- Solicited and awarded contract to Environmental Contractor to support investigation tasks.

- Conducted a river walk inspection of the tributaries discharging to the Broad Branch compliance point identified in the MST study. The tributaries include Soapstone Creek and Broad Branch.
- Inspected dry weather outfalls. This activity was conducted in 2024, 2025, and will continue to be utilized when required through the duration of the investigation.
- Monitored time-lapse photos. Due to the episodic nature of illicit discharges. DOEE used a time-lapse camera to monitor the stormwater outfalls on a 24-hr basis. Monitoring can identify discharges that are not continuous and identify discharge patterns at outfalls with dry weather flow such as increases in flow at different times of the day and visual evidence of pollutants such as suds, grey water or increases in turbidity. This activity was conducted in 2024 and 2025, and will continue to be utilized when required through the duration of the investigation.
- Drafted surface water sampling plan and collected surface water samples for E. coli analysis. Several rounds of surface water samples were collected during 2024 and 2025 and will continue to be collected as required through the duration of the investigation. Samples were collected from the following locations:
    - Compliance point
    - Outfalls with documented dry weather flow
    - Surface water
        - Samples were collected strategically throughout the streams to identify any hot spots, including upstream and downstream of any sanitary sewer line crossings.
- Identified target sewer sheds and developed an investigation plan based on monitoring and sampling data collected.
- Conducted dry weather manhole inspections. This activity was conducted in 2024 and 2025, and will continue to be utilized when required through the duration of the investigation.

The following activities were completed in 2025. Activities initiated in 2024 that continue to be utilized in 2025 and beyond are noted above.

- Conducted dry weather manhole sampling. Samples of dry weather flow were collected at strategic locations within the target sewer sheds. Sampling data was used to track and narrow down the source area within target sewer sheds. This data was used to plan the CCTV work conducted within the storm line and plan surface surveys for additional above ground sources.
- Conducted CCTV survey of target storm sewer lines.
- Conducted dye testing to identify potential sources.
- Conducted inspections of above ground sources in target areas that were potential sources of E. coli. The following types of above ground sources are inspected target areas where the sewer line servicing the source area’s sampling data indicated impacts:

  - Green spaces
  - Restaurants and grocery stores with dumpsters, private stormwater drains on their property that could be impacted by dumping, and public catch basins that may be impacted by dumping or runoff.
- Initiated enforcement activities; as sources of E. coli were identified, DOEE implemented its enforcement process to stop or remove the source.

3 STORWMATER FEE STATUS UPDATE

Adequacy of Stormwater Fee to Meet MS4 / Clean Water Act Requirements

Introduction

The District of Columbia is issued a Municipal Separate Storm Sewer System (MS4) Permit from the US Environmental Protection Agency under its National Pollutant Discharge Elimination System (NPDES). The District Department of Energy and Environment (DOEE) coordinates administration and implementation of this permit. Section 2.2.3 of this permit requires DOEE to provide an update on the status of the District's stormwater fee for achieving the permit's water quality goals. This update is to be provided with the District's 2025 MS4 Annual Report.

Background on Stormwater Fee

The District's stormwater fee was first established in 2000 shortly after the District received its first MS4 stormwater permit from EPA. The DC Council established the stormwater fee and a Stormwater Enterprise Fund to collect the fee's revenues.[1] These revenues are required to be spent on the costs of complying with the MS4 Permit. Initially the fee was charged as a flat fee for single family residences and as a percentage of water consumption for multi-family and commercial properties. At that time, revenues generated by the fee were approximately $3.1 million per year.

In 2008, the stormwater fee was increased for the first time.[2] An increase was necessary to implement measures required by a 2007 MS4 Permit Enhancement Agreement, which was negotiated between EPA and DOEE following an appeal of the original MS4 permit by environmental stakeholders. This action was intended to raise the annual fee revenue to approximately $13.2 million per year in order to implement new and enhanced stormwater management measures required by EPA.

In 2009, the stormwater fee was amended to be based on impervious surface.[3] Basing the fee on impervious surface basis ensures that a property's stormwater fee correlates to the amount of stormwater runoff generated by the property. Single family residences were assessed a fee based on an Equivalent Residential Unit (ERU) of 1,000 square feet of impervious surface, while all other properties were assessed a fee based on their total impervious area (rounded to the nearest 100 square feet). In 2010, the fee was updated to a "tiered" structure for residential properties to ensure the fees paid by larger-than-average and smaller-than-average properties are more equitable.[4] The details of the residential tier structure are provided in Appendix 1. The 2010 rulemaking also slightly adjusted the monthly charge per ERU to ensure the fee raised the $13.2 million necessary to comply with the permit.

No further changes have been made to the District's stormwater fee rates or structure since 2010.

Analysis of the Adequacy of the Current Stormwater Fee

Since the last time the District's stormwater fee was adjusted, three (3) MS4 permits have been issued, with increased compliance obligations in each. The District's current stormwater fee is no longer adequate to meet its MS4 permit obligations. Specifically, the District has determined that the current fee does not meet the District's needs because of:

1 D.C. Law 11-111; D.C. Official Code § 34-2202.16(1)
2 55 D.C. Reg. 10004 (September 26, 2008)
3 56 D.C. Reg. 3114 (April 24, 2009)
4 57 D.C. Reg. 10204 (October 29, 2010)

- Inflation;
- The increased costs of Green Infrastructure (GI) maintenance; and
- The increased need for the District to directly implement stormwater retrofits.

Cost escalation due to inflation

The stormwater fee provides funding for DOEE staff and programs to administer the MS4 Permit and meet its requirements. The stormwater fee funds, among other things, 1) DOEE's activities to track and report on Permit-required activities; 2) capital construction costs for green infrastructure retrofits, stream restoration projects, and wetland restoration projects; 3) tree planting programs; 4) incentive programs to promote voluntary green infrastructure retrofits; 5) operation and maintenance of structural controls; and 6) non-structural controls and programs, such as outreach and education, household hazardous waste collection, and pollution prevention at District government municipal operations facilities.

When the stormwater fee was last adjusted in 2010, the annual cost for these programs and projects was approximately $13.2 million. The District's personnel and non-personnel costs have increased substantially in the intervening 15 years. The cumulative national rate of inflation since November of 2010 is 44.8%. As a result, the stormwater fee would have to generate an additional $6,283,200 per year to cover the full cost of the same stormwater management program. However, this would not address new or additional costs resulting from new MS4 permit requirements imposed since 2010.

GI Maintenance Requirements and Costs

For three (3) years the District funded the maintenance of its approximately 4,500 Green Infrastructure (GI) facilities using American Rescue Plan Act (ARPA) funds. The District is considering using the Stormwater Enterprise Fund as a stable, long-term funding source to replace the ARPA funding. Under ARPA, this effort was first funded at $8,087,895. Since that time, the number of GI facilities have increased at an average of 250 new practices a year. Additionally, the ARPA GI maintenance did not include the sweeping of permeable surfaces, an activity that was funded in the Department of Public Works budget.

The current estimated cost for GI maintenance without sweeping of permeable surfaces is estimated at $9,000,000. The cost of regenerative air street sweeping of permeable surfaces is estimated to be $3,000,000. The total estimated cost of GI maintenance is estimated to be $12,000,000.

Direct Implementation to meet "acres managed" requirement

The most significant driver of increased MS4 permit compliance costs is the permit's requirement to manage or retrofit 1,175 acres of the MS4 area. In previous permit cycles, a significant portion of DOEE's progress toward this requirement was realized from private development constructed in compliance with District stormwater management regulations. As the DC metro area economy has cooled, fewer large development and redevelopment projects have occurred within the District. The acreage of stormwater management provided by regulated development and redevelopment projects has decreased significantly since 2020 (see Figure 1). As a result, direct investment in stormwater retrofit projects by District government will have to increase in order to meet the permit's requirement to manage 1,175 acres.

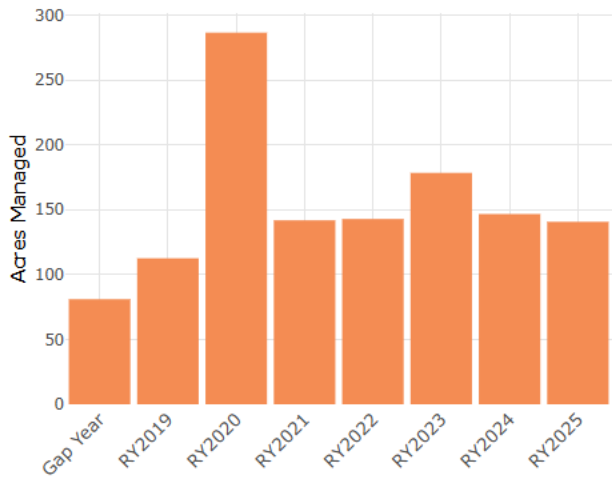

Figure 1. Yearly trend in stormwater management realized by regulated development and redevelopment projects

Based on the past seven (7) years of development and redevelopment activity (which covers the previous permit term and progress to date under the current permit), DOEE projects regulated projects will manage approximately 826 acres by the end of the permit term. This projected level of activity leaves a gap of 349 acres to meet the MS4 permit's overall "acres managed" requirement. This gap will need to be addressed by projects implemented directly by DOEE or other District government agencies. DOEE's estimated cost to retrofit one acre with stormwater management practices is $500,000. Using this cost/acre, DOEE estimates that up to an additional $58,166,667 per year will be required to directly implement retrofit projects to meet the MS4 permit's acres managed requirement by 2028, when the current permit expires. However, should regulated development and/or redevelopment activity exceed this 7-year projected average, the District would need less capital funding for direct implementation than is estimated here. In addition, a portion of this funding would be sufficient to provide local match for the District's annual allotment from EPA's Clean Water State Revolving Fund.

<u>Summary</u>

Revenue from the District's stormwater fee is no longer adequate to meet the MS4 Permit's water quality goals. This is due to numerous factors, including significant increases in program costs since the last stormwater fee increase. The major drivers of these cost increases are inflation since 2010 and the costs of compliance with new or increased permit requirements (such as for green infrastructure and stormwater retrofits). DOEE is exploring the possibility of a stormwater fee increase to meet the total annual revenue needs discussed in this analysis and summarized in Table 1.

Table 1. MS4 Permit Compliance Costs – Annual Revenue Needed

Permit Component	Cost
Prior Compliance Cost / Current Revenue Target	$13,200,000
Inflation Adjustment (48% inflation since 11/1/2010)	$6,283,200
GI Maintenance Costs	$9,000,000
Increased Street Sweeping to complement GI Maintenance	$3,000,000
Stormwater Capital for Direct implementation to meet "Acres Managed" requirement	$58,166,667

Total	$89,649,867

Appendix 1: Basis for Stormwater Fee Assessments

The District's Stormwater Fee is based on the amount of impervious surface on a property, roughly equivalent to that property's impact on the stormwater system. The amount of impervious surface is converted into ERUs (1 ERU = 1,000 square feet of impervious surface). Single-family residential customers are billed in ERUs under a tiered rate structure based on the amount of impervious area on their property. ERUs for non-residential customers are determined by dividing the total amount of impervious surface by 1,000. A typical single-family residence in the District is assessed the SW Fee for 1 ERU, while a commercial property with 30,000 square feet of impervious surface is assessed the SW Fee for 30 ERUs. The tiered rate structure for single-family residences and several examples for non-residential properties are shown in the tables below.

Single Family Residences

Impervious Surface (SF)	*ERUs*	Current Monthly Stormwater Fee
100 to 600	0.6	$1.60
700 to 2,000*	1.0	$2.67
2,100 to 3,000	2.4	$6.41
3,100 to 7,000	3.8	$10.15
7,100 to 11,000	8.6	$22.96
11,000 and above	13.5	$36.05

**Average-size residential property*

Examples of Non-residential Properties

$2.67 per month per 1,000 square feet of impervious area on the lot

Impervious Surface (SF)	ERUs	Current Monthly Stormwater Fee
7,500	7.5	$20.03
15,000	15	$40.05
25,000	25	$66.75

Residential ratepayers make up approximately 84% of DC Water ratepayer accounts in the District, yet only 27% of the assessed ERUs. This is due to commercial, federal, and industrial properties typically covering larger areas with much more impervious square footage (such as parking lots).

4 PERMIT SECTION 7.3.2

Introduction

This report summarizes recommendations for improving engagement between the Municipal Separate Storm Sewer System (MS4) permit programs and Wards 7 and 8 in Washington, DC. The MS4 is the area of the

District (Figure 1) where stormwater is collected and conveyed from streets, sidewalks, and rooftops to nearby waterways through stormwater sewers and outfalls. The MS4 Permit allows the District to discharge stormwater from the MS4 area and has requirements related to stormwater pollution control, stormwater pollution prevention, public education and outreach, stormwater pollution modeling, and monitoring. The MS4 Permit Programs are the activities the District engages in to meet these requirements.

A few of the MS4 Permit Programs include implementing and maintaining stormwater best management practices, upholding and enforcing stormwater management regulations for development and construction sites, managing and controlling illicit discharges and improper disposal practices, laws and bans that reduce the use of single use products, environmental education programs for students and teachers, and a robust monitoring program to evaluate the effectiveness of the MS4 Permit Programs.

The strategies recommended in this report can also applied to other areas of the District, especially if they face similar issues to Wards 7 and 8. These recommendations were synthesized from the input of the Stormwater Advisory Committee for Wards 7 and 8, data collected at public engagement events, research on other cities' stormwater programs, and knowledge of DOEE's existing efforts.

The recommendations are summarized below:

- Center on youth education and green careers
- Increase community accessibility through effective outreach
- Connect stormwater to issues of health and well-being
- Increase financial support
- Considerations when choosing locations for green infrastructure implementation

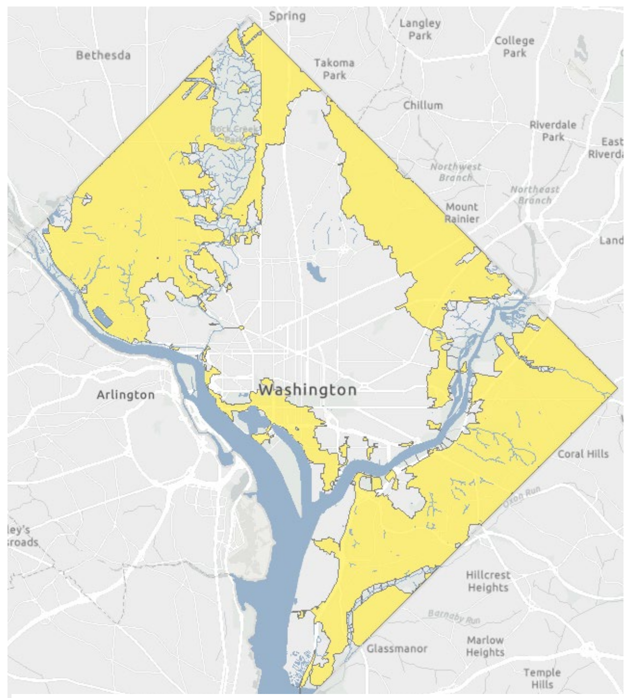

Figure 1. MS4 areas of Washington, DC highlighted in yellow.

The Advisory Committee emphasized that this strategy will be considered successful if the MS4 permit programs benefit the long-term resident populations in Wards 7 & 8. This is important to bear in mind when assessing the success of any interventions driven by this strategy, especially when using datasets and indices that are sensitive to demographic changes.

Strategy Development

Research on Other Municipalities

The project team researched other municipalities' stormwater programs to understand how their programs have approached engagement and community involvement. The research effort examined municipalities that had designated community engagement programs including the San Francisco Bay Regional Water Quality Control Board; the City of Oakland, California; the City of San Diego, California; the City of Sacramento, California;

the Washington Stormwater Center; the City of Olympia, Washington; the City of Seattle, Washington; the Minnesota Pollution Control Agency; the City of Baltimore, Maryland; Montgomery County, Maryland; the City of Philadelphia, Pennsylvania; the Southeast New England Program; and the City of Providence, Rhode Island. A detailed summary of this research was shared with DOEE, and a high-level summary is presented here:

- Many municipalities use mapping tools to identify priority communities to implement projects, direct funding, and expand community engagement. Datasets used in these mapping tools include demographic data, environmental burden data, and health data.

- Several municipalities have created frameworks for engagement with communities disproportionately burdened by environmental impacts (including stormwater) that can be applied across programs.

- Tools used by municipalities included monitoring and assessment of environmental burdens; identifying regulatory pathways to reduce burdens; targeted education and outreach; technical assistance and grants; and improved facilitation of public participation and engagement.

Survey of DOEE Staff

The project team developed a survey for DOEE staff in charge of MS4 permit programs to inventory and understand engagement efforts to date. Survey respondents indicated that while DOEE offers some specific engagement training, such as REIA, NRA, DOEE, and DC Government trainings, they were not able to implement public engagement in their programming due to insufficient funding, competing program priorities, or unclear guidance and expectations. A few MS4 permit programs are already tracking or using demographic community data to inform distribution of program efforts, such as the RiverSmart and Ecological Restoration programs. Many more interact with the public or receive public feedback in some form. Nearly all respondents also indicated that their program would benefit from community engagement.

The findings of this survey were shared with Advisory Committee members to inform their recommendations. The respondents to the survey were also engaged at the mid-way point of the Advisory Committee meetings to provide feedback on the early recommendations emerging from the committee's sessions.

Advisory Committee

The primary source of the recommendations in this strategy is the Stormwater Advisory Committee for Wards 7 and 8. The project team recruited committee members who live, work, or have an impact in the MS4 area and are leaders in the Wards 7 & 8 communities. Potential committee members were identified through local non-profits whose missions overlap with MS4 programs and recommendations from other community leaders. Advisory Committee members were compensated for their time and participated in a personal capacity, expressing their individual perspectives.

The committee was convened for six working sessions. The goal of these sessions was to increase committee members' familiarity with MS4 programs and permit requirements, increase transparency and accountability in MS4 permit programs, plan public engagement activities, and identify elements to include in the strategy. These working sessions themselves were a form of increasing community participation in the MS4 permit programs.

Public Engagement

In addition to the Advisory Committee's contributions, the strategy also considered feedback solicited via three public engagement activities. These activities were developed with the Advisory Committee's input, and several committee members were involved in facilitating them.

Engagement Activity #1: Tabling at the Anacostia River Festival

A project team member and an Advisory Committee member shared table space with DOEE's *RiverSmart Homes* during the festival. Attendees who approached the table were invited to answer simple questions about green features to gauge their knowledge of infrastructure designed to mitigate stormwater runoff and its impacts. Pictures of various types of green infrastructure (GI), such as rain gardens, rain barrels, green roofs, urban planter boxes, permeable pavement, and more, were shown on an iPad to support their understanding. Follow-up questions assessed their preference for specific green features, potential locations within their neighborhoods where these interventions would be helpful, messaging and communication channels to share the benefits of green projects with the local community, and potential questions, concerns, or pushback DOEE might encounter.

The team wrote down notes manually on comment cards as people provided insights, in compliance with the National Park Service's rules for feedback gathering during the event. Participants were given chocolates and small toys for children as incentives. All respondents were residents from Wards 7 and 8.

Engagement Activity #2: Ward 7 & 8 Faith Leaders Meeting

A committee member coordinated an opportunity for the project team to conduct a 45-minute presentation and feedback gathering session on stormwater management with faith-based leaders in Wards 7 and 8. The presentation provided an overview of the effects of stormwater runoff, issues related to pollution affecting local waterways in the District of Columbia, the MS4 areas and permit programs, and the activities that the DOEE has been developing to mitigate negative impacts, including green infrastructure. The presentation included imagery depicting different types of green infrastructure and its role in helping reduce runoff and contamination. Participants were invited to answer questions about the green features by participating verbally or by typing their responses in the chat. The questions assessed their preference for specific green features, potential organizations and groups to connect with for discussion and outreach, messaging and communication channels to share the benefits of green projects with their communities, and potential questions or concerns DOEE should address.

Attendees included residents and community organizers living or working in Wards 5, 7, and 8. Leaders from different faith-based groups included the Pennsylvania Avenue Baptist Church, the East of the River Clergy Police Community Partnership, the DC Alliance Empowering Homicide Survivors, the Peace Lutheran Church, and the Islamic Masjid Muhammad, The Nation's Mosque. Participants also included representatives from the DC Prevention Center for Opioid Response, DC Public Schools (DCPS), and the DC Office of Planning, as well as active community members.

Engagement Activity #3: Tabling at Minnesota Avenue FreshFarm Market Stand

A project team member and a committee member set up a pop-up table at the FreshFarm stand located at the East River Park Shopping Mall parking lot in Ward 7. Fresh produce from local vendors was available both for purchase and for food distribution to residents using SNAP, EBT, and WIC benefits. Market visitors who approached the table were invited to spin a wheel and answer simple questions about green infrastructure to gauge their knowledge of stormwater impacts and mitigation alternatives. Printed imagery depicting various types of green infrastructure, such as rain gardens, rain barrels, green roofs, bioretention, permeable pavement, and an infographic about stormwater pollution, was displayed on the table to support their understanding. The questions assessed their preference for specific green infrastructure installations, potential locations within their neighborhoods where these interventions would be helpful, communication channels to share the benefits of green projects with the local community, and potential questions, concerns, or pushback DOEE might encounter.

The engagement team captured notes on comment cards as people provided insights. Participants were offered reusable bags to carry their produce, cold water, and bookmarks with watercolors for children as incentives. All participants were residents from Wards 7 and 8.

Emerging Themes

Themes that emerged from the Advisory Committee and other activities, which shaped the recommendations presented in Section 3, include:

- The success of an engagement strategy depends on how much the MS4 permit programs benefit the long-term residents of Wards 7 & 8 at the time of this strategy development. This was noted with respect to indices of health and income that may change as demographics of the area shift, but don’t necessarily indicate that long-term residents in the area at this time are experiencing those benefits.

- The Ward 7 & 8 communities are generally supportive of green infrastructure in their neighborhoods, but effective engagement and consulting with communities on how and where green infrastructure is implemented is critical. Committee members stressed the importance of approaching public green infrastructure projects with respect for existing communities and ways of life.

- There is a need to build a shared understanding about the risks associated with poor stormwater management and the benefits of green infrastructure. Youth education, community ambassadors, and city-wide media campaigns were common ideas to help educate community members about their direct ability to be a change agent and make a positive impact.

- Committee members were energized by visions of a swimmable Anacostia River, increased access to the river and outdoor green spaces for recreation, a Bottle Bill to reduce plastic pollution, and community-level environmental stewardship.

Recommendations

The following recommendations were synthesized from the Advisory Committee’s input and supplemented with input from the public engagement activities. Some actions listed here are already being undertaken by DOEE; these should be taken as affirmation that efforts are headed in the right direction and that there is an opportunity to promote visibility and broader reach.

Center on Youth Education and Green Careers

DOEE already has a number of youth education and green career pathway programs such as the Living Classrooms, Meaningful Watershed Education Experiences, Aquatic Resources Education Center, RiverCorps, RiverSmart Schools, Kingman Island Rangers, Latin American Youth Center, and Green Zone Environmental Partners programs. The Advisory Committee felt that it was still important to emphasize youth education and green career pathways as a tool for perception and behavioral changes surrounding stormwater, stormwater management, and green infrastructure. The Advisory Committee also noted a need for increased advertising of DOEE's existing programming in Wards 7 & 8 as members of their communities were not aware of the existing programs.

Committee members emphasized that helping youth understand why stormwater issues matter is key for the Wards 7 & 8 Engagement Strategy. Engaging youth is a way to shape the perspective of the next generation and can have an intergenerational ripple effect. Youth education is also the first step in developing a pipeline into green jobs. Key players and partners for these recommendations would be schools in both the DC Public School System and Charter Schools, after-school programs, summer programs, the District's Office of the State Superintendent of Education (specifically the Environmental Literacy Advisory Committee), parents, caregivers, teachers, and school administrators. Additional partners for building career pathways are workforce development organizations (such as Earth Conservation Corps and AmeriCorps) and other stormwater-related employers (like DC Water, local landscaping businesses, and local environmental non-profits). Potential actions include:

- **Using interactive learning and hands-on activities to share and reinforce stormwater management concepts.** This could include using physical watershed models, involving children in planting native plants and removing invasive species, and developing youth-focused stormwater activities (such as relay races at festivals or mapping/modeling stormwater pathways in their communities). Friendly competition can also spark youth engagement. These activities could be implemented in academic curricula, at after-school or summer programs, and other community events.

- **Making stormwater content more engaging**. Utilize technology and other tools to make stormwater issues more interesting and demonstrate the severity of issues. Develop public service announcements and other media about stormwater impacts specifically geared towards youth.

- **Developing a city-wide stormwater education plan.** Coordinate with DCPS, charter schools, the Office of the Superintendent of Education (OSSE), and after-school programs to integrate and standardize stormwater curriculum. Increase capacity for logistics to support school programming (busing, scheduling) and dedicate funding for transportation. Create a summer or spring break camp focused on stormwater issues and education. Utilize parent-teacher associations and back-to-school nights to reach parents as well.

- **Building a pathway to green careers, including internships, apprenticeships, and certifications.** Increase funding and reach of existing youth training pipelines and develop new ones. Partner with local businesses, agencies, and non-profits to hire or mentor youth. Pay young people to engage with on-the-ground projects, help them build practical skills, instill environmental stewardship, and encourage them to be ambassadors for their community. Develop a network and directory of workforce development organizations focused on green infrastructure. Building these pathways should be done in a phased approach to ensure the long-term sustainability of youth job programs.

Increase Community Accessibility Through Effective Outreach

Committee members identified the need for clear, inclusive, and relatable messaging to build community trust around stormwater efforts. To effectively reach audiences in Wards 7 & 8, technical language needs to be simplified, and data needs to be presented in ways that empower residents to understand and act. Many residents are unaware of the resources available through DOEE for stormwater management and maintenance of green infrastructure. In instances where green infrastructure has received pushback from community members, better outreach was identified as the key to building community buy-in. Potential actions include:

- **Raising awareness about stormwater issues and solutions through better marketing.** Promote awareness year-round, beyond Earth Day. Avoid jargon and focus on simple, actionable messages. Share water quality testing results with communities and explain the implications for swimming or fishing.

- **Celebrating the Anacostia River.** Build on initiatives like the Year of the Anacostia (2018) and Enjoy the Anacostia (ongoing). Regularly highlight the positive aspects of the river, show the progress achieved thus far in restoration and cleaning efforts, and emphasize the history of how the river used to be (before widespread pollution issues).

- **Going beyond digital outreach.** Leverage WMATA ads, grocery stores, and TV stations (such as the Mayor's TV station) for broader reach. Text message and social media campaigns are still viewed as effective.

- **Using trusted messengers.** Partner with Ward 7 & 8 museums, parks, Parent-Teacher Associations (PTAs), faith-based organizations, local Advisory Neighborhood Committees (ANCs), and other local leaders for outreach and programming. Train teenagers and adults to be neighborhood ambassadors and lead green infrastructure walking tours. Utilize porch-to-porch engagement rather than traditional door knocking. Build on initiatives like "Hicky Run Heroes."

- **Utilizing effective signage.** Place placards and signs on green infrastructure installations that are visible to cars and bikers, not just pedestrians. Signage should explain, in simple language, what the GI feature is, and its benefits. Existing signage is seen as useful and informative.

- **Approaching outreach with respect.** Acknowledge the ways that Ward 7 & 8 infrastructure and resources may differ from other parts of the city, which leads to differences in modes of transportation and other habits. Understand that changes to neighborhoods are uncomfortable for many people and raise the possibility of displacement. Consider informing the community through multiple channels (beyond those currently used) about plans to install green infrastructure projects in residential areas and communicating the benefits these will bring to their neighborhoods. If possible, solicit input from the community early enough to inform project location and other design decisions.

- **Focusing on hyperlocal issues for neighborhood-specific campaigns.** The concept of water quality in the Anacostia River may be too abstract for some people to connect with, but local issues of flooding, impacts to property and health, or access to green space may resonate.

- **Partnering with First Nations.** Ground stormwater programs in traditional knowledge of the land and incorporate insights from First Nations people into stormwater programs and curriculum.

Connect Stormwater to Issues of Health and Well-being

Effective stormwater management can improve health and well-being in many ways, from the mental health benefits of green space to improved indoor air quality when basement flooding is mitigated. However, these connections are not widely known among the public. Committee members felt that drawing clear connections between stormwater and health would be compelling for Ward 7 & 8 residents.

- **Communicate about the health risks of poor stormwater management**. Share information about the risks of mold and increased asthma rates, especially in flood-prone areas. Draw connections between reduced stress, access to nature, and the role of green infrastructure. Develop messaging around how green infrastructure can protect your home and other property.

- **Promote outdoor wellness as a benefit of improved stormwater management**. Promote fishing, nature access, and swimming for physical and emotional health. Ensure that outdoor spaces are safe by reducing trash and pollutants and ensuring adequate lighting at night in parks and public spaces.

- **Improve data access**. Make water quality data more accessible and easier to understand, using visual aids and plain language. Draw clear connections between water quality and health issues.

- **Partner with health-focused organizations.** Explore collaborations with healthcare, housing, and mental health organizations. Incorporate information on health and wellness into river tours and include stormwater management concepts into health-focused workshops.

- **Connect stormwater management to food security**. Rainwater harvesting to support urban agriculture in areas with limited access to fresh produce resonated with committee members and community faith leaders as a stormwater management method that would be widely welcomed in communities.

- **Promote proper pet waste management and litter reduction**. Continue messaging and funding infrastructure improvements around responsible disposal, while promoting clean streets as an easy way for community members to contribute.

Increase Financial Support

Committee members and the public identified a strong need for additional funding to support stormwater management in Wards 7 & 8, as well as an increased awareness of existing funding sources. The committee acknowledged that DOEE may not have funding to address these suggestions in the near term and recommends these areas as priorities if and when funding is available.

- **Directly fund green infrastructure**. Sustain and expand funding for programs that directly support residents, like RiverSmart Homes. Provide grants or microgrants for practices like rain barrels and green roofs. Explore micro-lending opportunities for smaller groups and projects.

- **Support local leadership and programming**. Fund grassroots organizations, local leaders, and smaller non-profits working on stormwater issues. Allow local panels of community leaders to guide funding decisions in Wards 7 & 8.

- **Fund youth programs**. Support youth-focused trainings and workforce development programs at schools and other venues. Fund youth-led and youth-serving programs that combine workforce development with stormwater management. See section 3.1 for further recommendations related to youth engagement.

- **Increase awareness of existing programs**. Leverage in-person outreach, public events, job fairs, ambassadors, and promotional campaigns to connect residents to funding (see further recommendations in Section 3.2).

Considerations When Choosing Locations for Green Infrastructure Implementation

DOEE specifically asked for input on choosing locations for green infrastructure implementation on city-owned properties and the public right of way. Committee members participated in a mapping activity where they identified census tracts of highest interest for green infrastructure implementation. Committee members and members of the public also suggested specific sites for green infrastructure implementation. Detailed results of the mapping and public input have been shared with DOEE directly and are summarized here:

- **Areas with relatively high asthma rates should be prioritized for green infrastructure implementation (Figure 2).** Committee members noted that higher asthma rates likely reflect poor air and housing quality, and that while green infrastructure alone cannot solve these issues, it can play a role in mitigation. Tree planting for improved air quality and addressing basement flooding issues were seen as key interventions.

- **Areas with low proximity to parks should be prioritized for green infrastructure implementation (Figure 3).** Although green infrastructure practices do not provide all the same benefits as parks, committee members felt that these areas would benefit from any increased greenery and vegetation.

- **Areas that experience higher temperatures should be prioritized for green infrastructure implementation (Figure 4).** Higher temperatures are typically seen in areas with higher levels of impervious cover. Reducing impervious surfaces in favor of green infrastructure and increasing tree canopy can play a role in lowering temperatures.

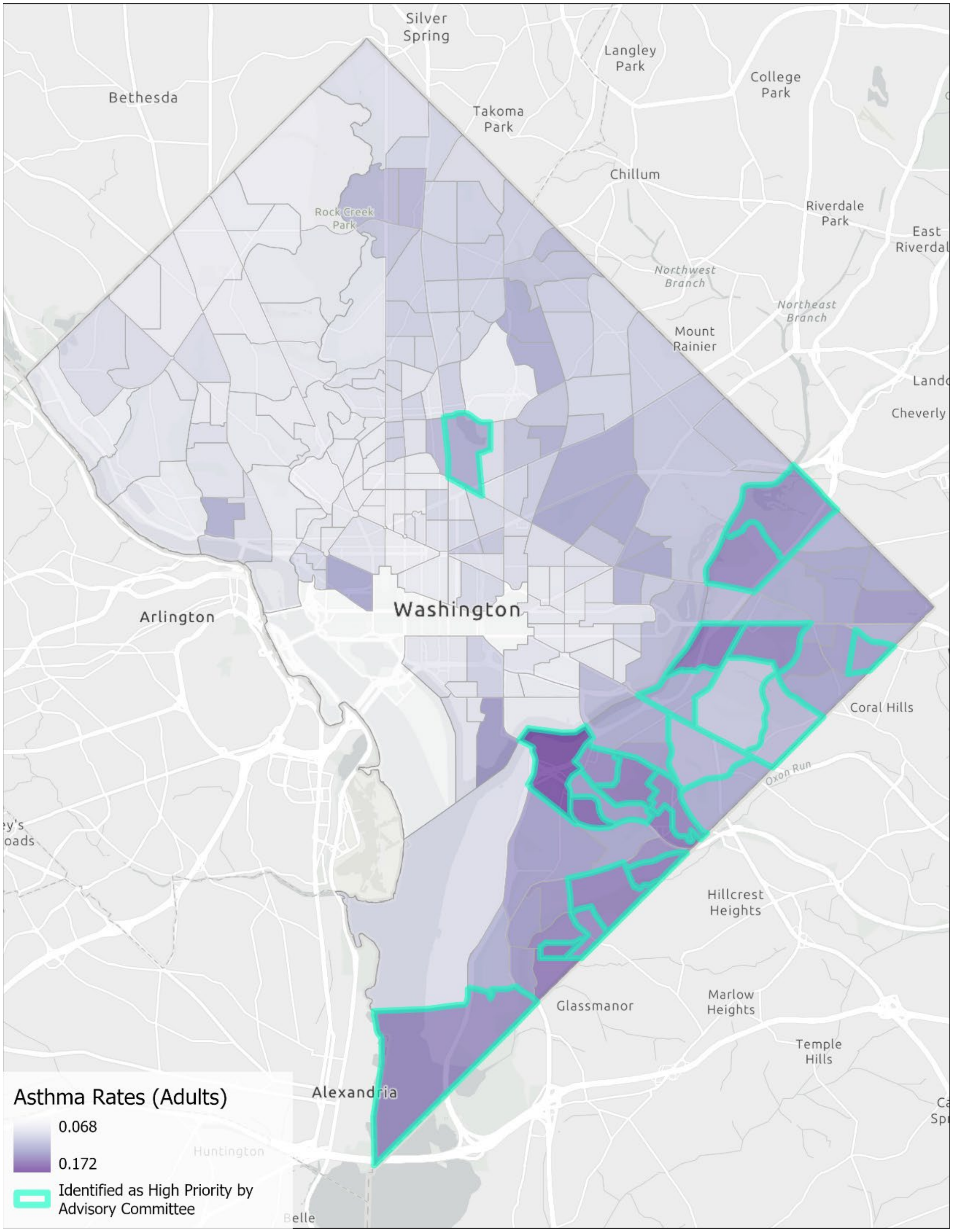

Figure 2 Map showing asthma rates among adults in the DC at the census tract level. Highlighted census tracts indicate areas identified as high priority for green infrastructure implementation by the advisory committee. Asthma data obtained from DOEE.

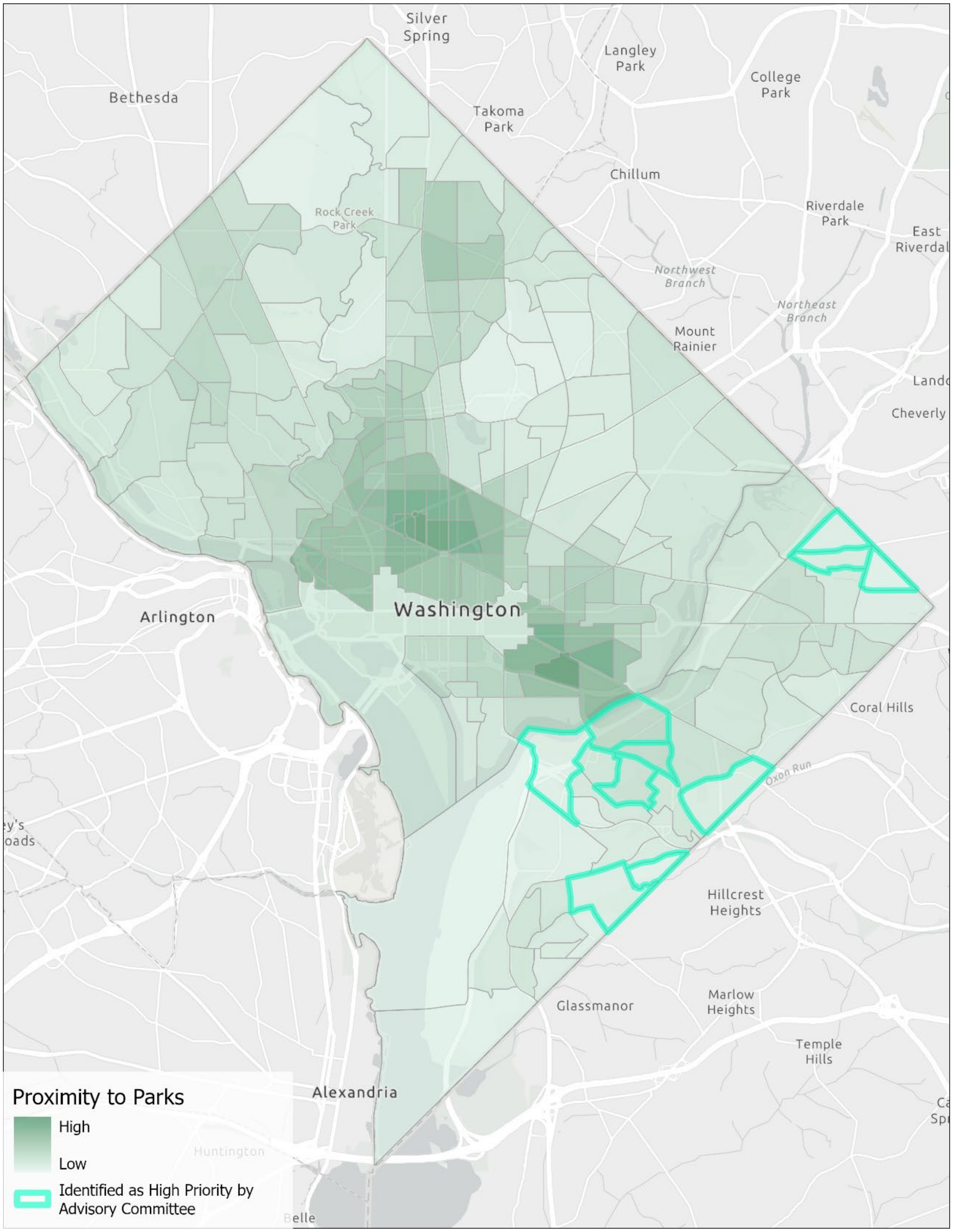

Figure 3 Map showing relative proximity to parks at the census tract level. Highlighted census tracts indicate areas identified as high priority for green infrastructure implementation by the advisory committee. Park proximity data obtained from DOEE.

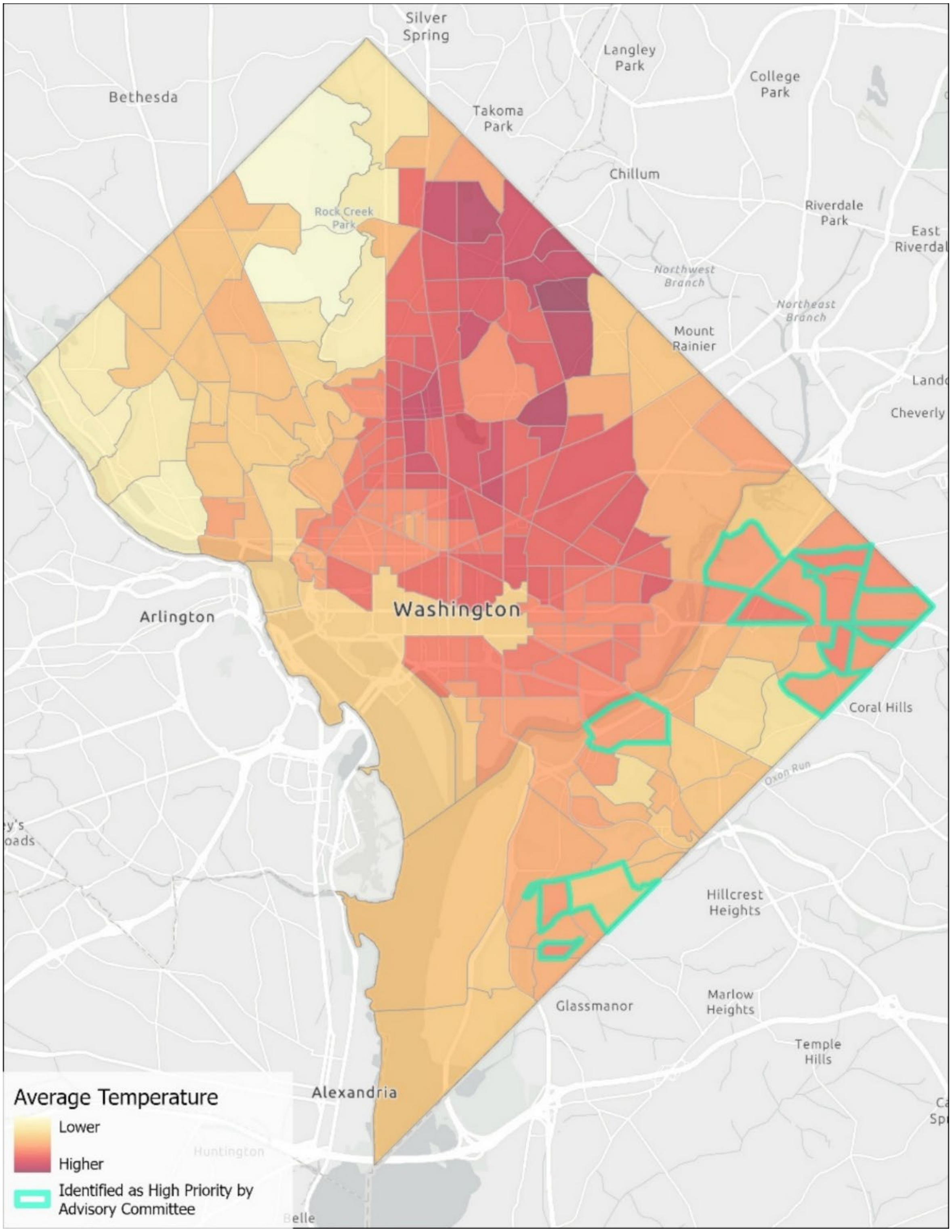

Figure 4 Map showing average temperature at the census tract level. Highlighted census tracts indicate areas identified as high priority for green infrastructure implementation by the advisory committee. Average temperature data obtained from DOEE.

Implementation

These recommendations should be used as an internal guidance document for DOEE staff and applied to MS4 permit programs as they are applicable. The proposed recommendations should be incorporated in a manner that leverages existing DOEE resources, advisory groups, and partnerships within the communities they serve. Implementation of recommendations can be scaled as financial resources are available. Current managers of the MS4 permit programs can identify ways that their programs can better serve residents of Wards 7 & 8 using these recommendations. Existing engagement efforts with Wards 7 & 8 should continue and build upon these recommendations. This document can also be used to inform future engagement activities undertaken by MS4 permit programs and choosing locations for green infrastructure implementation to meet permit requirements.

Capturing Community Engagement Demographics

To ensure that the demographics of Wards 7 & 8 are represented and engaged in any outreach event or activity, an anonymous short survey can be distributed to event participants where they can self-identify their demographics, how long they've lived in the area, and whether they've previously heard about the topics being discussed in the event or activity. These questions can also be made available online and provided to participants via QR codes, if they prefer to fill out the short survey that way. Collecting this type of demographic information can help confirm that the desired audience is being reached and signal to DOEE if any adjustments in community outreach need to be made.

Measuring Progress

The successful implementation of these recommendations can be seen as the point in which long-term residents of Wards 7 & 8 feel like they are able to have an active voice in DOEE programs and advocate for the benefits they want to see in their neighborhoods. For example, this can look like knowing which division, branch, or individual at DOEE to contact about implementing a BMP that manages stormwater and subsequently reduces or eliminates basement flooding. It could also look like DOEE continuing to leverage the Stormwater Advisory Committee assembled for this project, or recruiting a similar group of Ward 7 & 8 community leaders, to help measure progress. To track progress towards success, the following metrics are examples of those that can be measured for each of the recommendations in Section 3.

Center on Youth Education and Green Careers

- Number of stormwater, stormwater management, and green infrastructure focused activities held in a given year.
- Number of children and students who participated in stormwater, stormwater management, and green infrastructure focused activities.
- Engagement metrics of online stormwater education media (e.g., number of hits, impressions, video watch time, etc.)
- Enrollment in stormwater, stormwater management, and green infrastructure focused activities after public service announcements and media publications are released/distributed.
- Amount of dedicated youth education and green career funding.
- Implementation rate of a standardized stormwater curriculum across DCPS, Charter Schools, and after-school programs .
- Enrollment in a stormwater summer or spring break camp.

- Number of partnerships with local businesses, agencies, and non-profits.

Increase Community Accessibility Through Effective Outreach

- Number of outreach campaigns that do not rely on social media.
- Number of easy to read and understand signs on green infrastructure installations.
- Number of hyper-local campaigns that focus on local issues rather than watershed-wide issues.
- Number of trained local leaders to be neighborhood ambassadors and lead green infrastructure walking tours.
- Number of partnerships with First Nations.

Connect Stormwater to Issues of Health and Well-Being

- Number of health and stormwater campaigns.
- Number of partnerships with health-focused organizations.
- Number of food security and stormwater campaigns.
- Number of outdoor wellness and stormwater campaigns.

Increase Financial Support

- Amount of funding dedicated to green infrastructure grant programs.
- Amount of funding dedicated to supporting grassroots organizations, local leaders, and smaller non-profits working on stormwater issues.
- Number of funding decisions guided by local panel of community leaders in Wards 7 & 8.

Considerations When Choosing Locations for Green Infrastructure Implementation

- Number of new green infrastructure practices in areas with high asthma rates in the District.
- Number of new green infrastructure practices in areas with low proximity to parks in the District.
- Number of new green infrastructure practices in areas with high temperatures in the District.

Evaluate and Adapt

Any recommendations in this document that are implemented should be monitored and evaluated for efficacy in line with adaptive management strategy (Figure 5). Implementation plans should be adjusted as necessary based on the results of the evaluation of collected metrics and available resources.

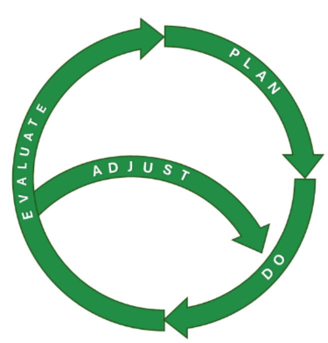

Figure 5: The Adaptive Management Cycle

5 EVALUATION OF THE STORMWATER MANAGEMENT PROGRAM

The District's MS4 Annual Report, Section 4.7, requires a data synthesis of programmatic and watershed indicators.

4.7.1 Programmatic Indicators

The Permittee shall evaluate the effectiveness of the SWMP using multiple programmatic indicators linked to the requirements in Part 3 of this permit. The Annual Reporting Template in Appendix A of this permit identifies the programmatic indicators used to evaluate the success of implementing stormwater control measures.

As required by Section 4.7.1, the effectiveness of the Stormwater Management Program is evaluated using the programmatic indicators found in Part 3 of the MS4 Permit. The Annual Report describes implementation of these programs in this reporting year. In the interest of doing a complete synthesis, indicators are being reviewed over the life of multiple permit terms. As seen in the text and figures below, major program indicators have seen a steady progression in implementation.

Catch Basin Cleaning Activities (Section 3.3.4)

Through the development of the DC Water Catch Basin Cleaning App, DOEE has increased the accuracy with which it can report catch basin cleaning within the District. In previous permit terms, DOEE was limited to reporting the number of catch basins cleaned over the entire jurisdiction. Now DOEE is able to report the number of catch basins that were cleaned specifically within the area of the city serviced by the MS4. Using data from the DC Water Catch Basin Cleaning App, DOEE has determined that there are 15,150 total catch basins within the MS4 area of the District. The number of catch basins cleaned in the MS4 area of DC was 14,307. DC Water considers catch basins cleaned and operational if a catch basin is 25 percent full or less. This number represents the number of unique catch basins that were cleaned, not the number of cleaning events. It should be noted that some catch basins were cleaned more than once during the reporting year, which is not reflected in this number. The District uses catch basin cleaning data to report to the Chesapeake Bay Program for Total Nitrogen, Total Phosphorus and Total Suspended Solids TMDL progress tracking.

Table 2. Estimated Pollutant Pounds Removed from Catch Basin Cleaning (Citywide)

Parameter	Pounds Removed
Total Nitrogen	4,680
Total Phosphorus	714
Total Suspended Solids	472,789

Construction Activities (Section 3.5)

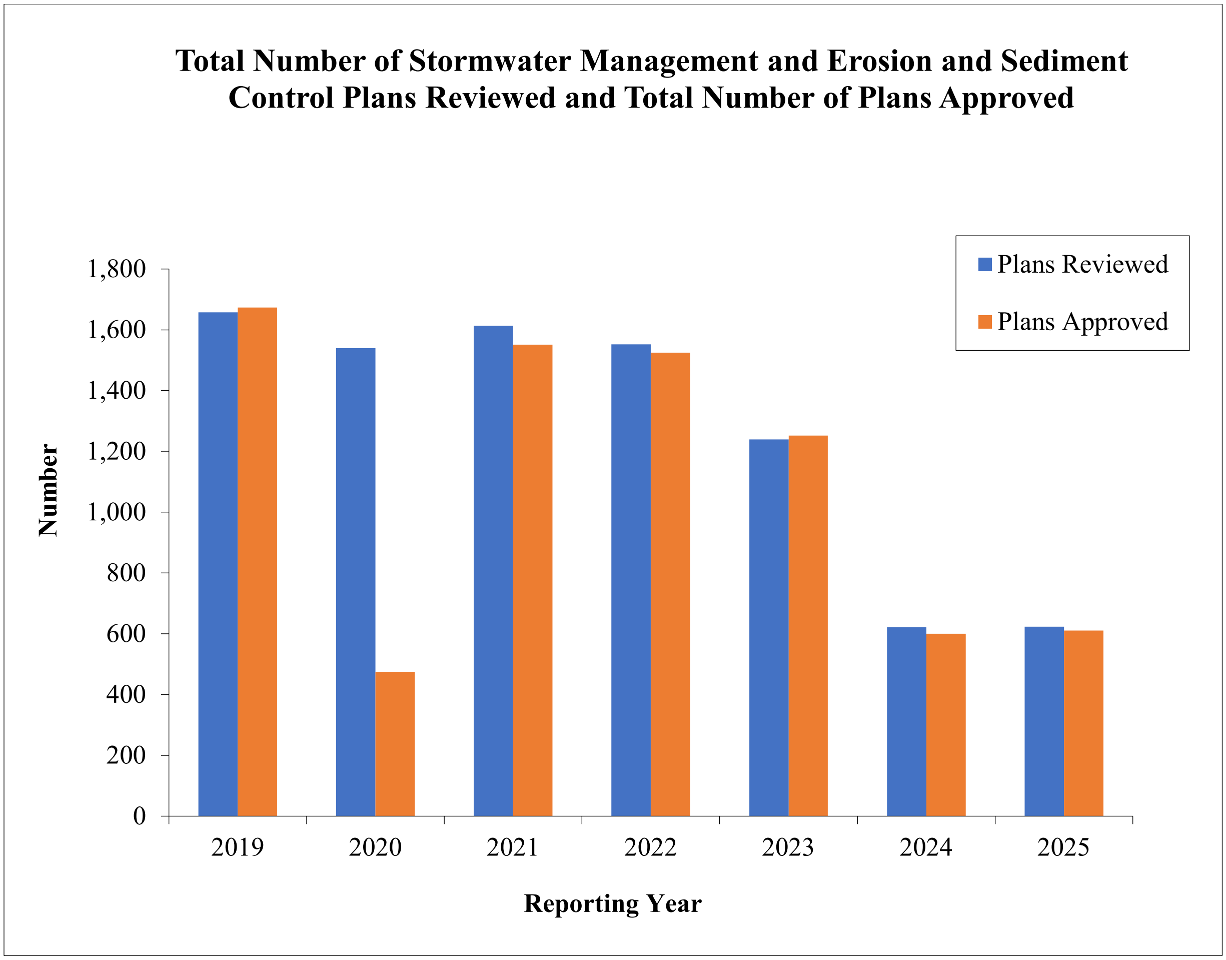

Figure 1 Total Number of Stormwater Management and Erosion and Sediment Control Plans Reviewed and Total Number of Plans

Targeted Trash and Litter Pollutant Controls (Section 3.7)

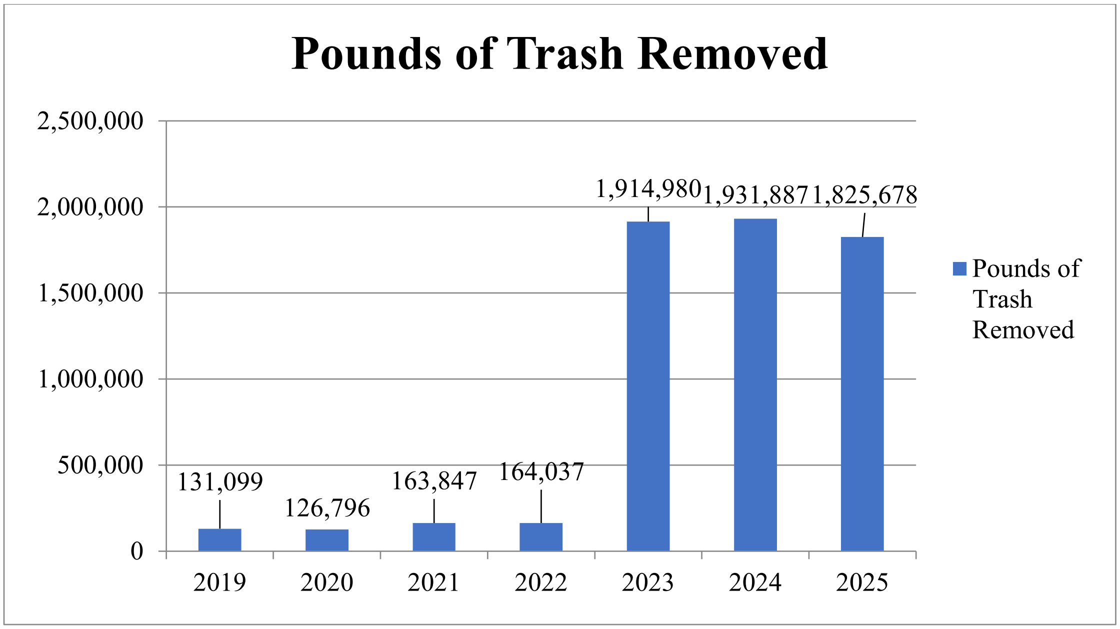

Figure 2 Pounds of Trash Removed Over Time

In 2023, DOEE updated its trash reduction calculations to better reflect the Anacostia Trash multi-jurisdictional collaboration metrics for tracking and reporting trash reductions. These changes included updating the wet weight reduction factor for plastic bottles and removing the deduction for portion of the watershed outside of DC. These changes yield considerably higher reductions than seen in previous annual reports.

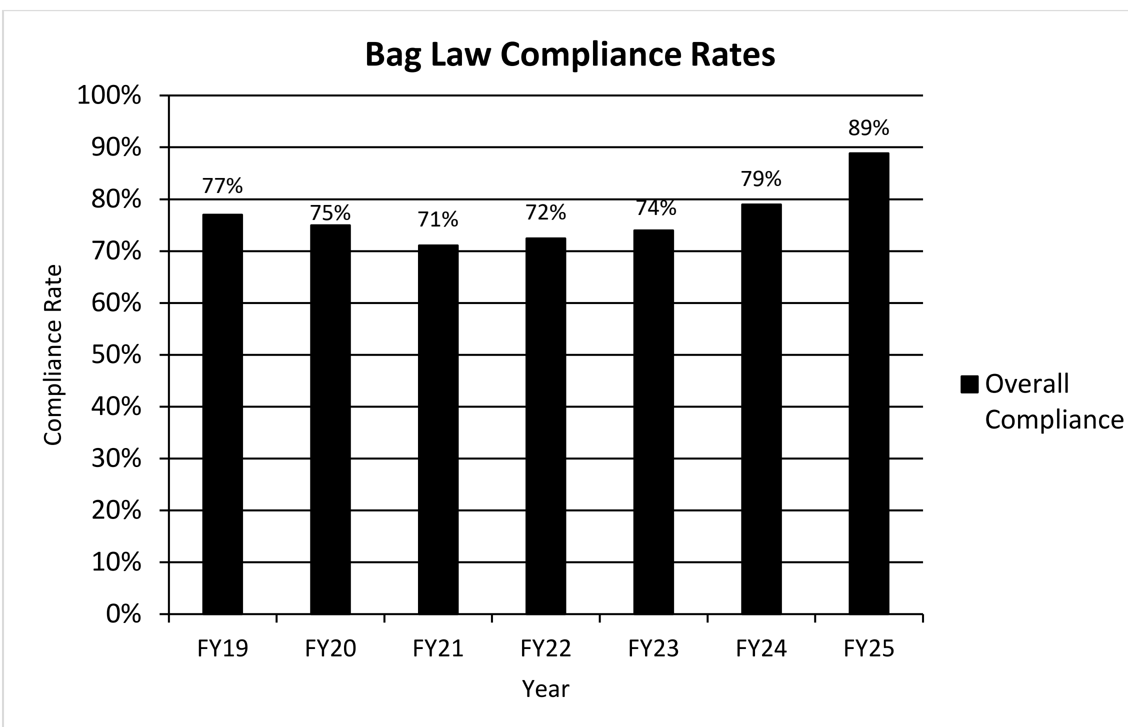

Figure 3 Bag Law Compliance Rates Over Time

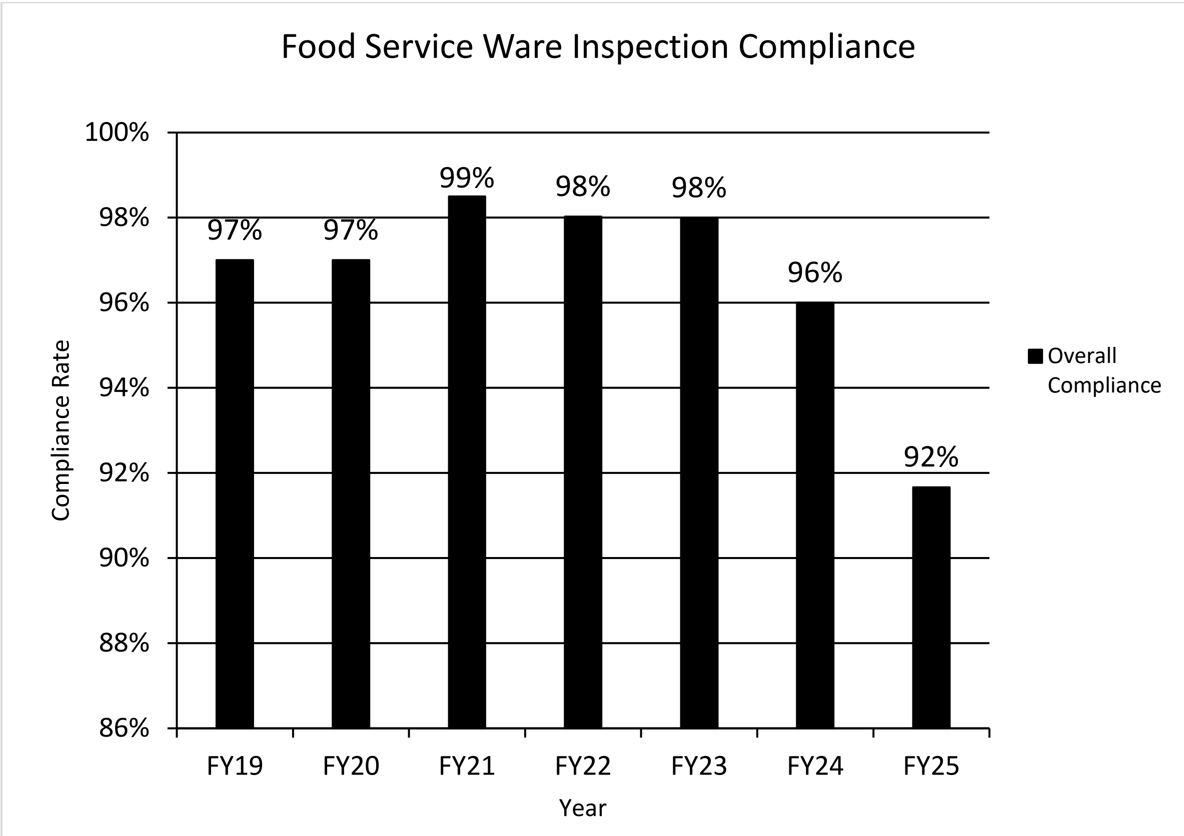

Figure 4 Food Service Ware Inspection, including foam ban, Compliance Rates

Table 3 Coal Tar Pavement Sealant Ban Inspections and Compliance Rates

Fiscal Year	Inspections	Positive CT Field Tests	Overall Compliance (%)
FY19	63	1	100
FY20	63	0	100
FY21	45	0	100
FY22	60	0	100
FY23	60	0	100
FY24	60	0	100
FY25	7	0	100
TOTALS:	358	1	-

4.7.2 Watershed Indicators

The Permittee shall also evaluate the effectiveness of the SWMP using multiple watershed indicators linked mostly to the assessment requirements of Part 4 of this permit, and the synthesis of those data through analysis and modeling.

In the 2025 reporting year, DOEE continued implementing the Receiving Waters Assessment Program as required in Section 4.3 of the District's MS4 Permit. As part of this program, DOEE has developed a Rapid Stream Assessment (RSA). The intent of the RSA is to collect information to provide a high-level overview of the entire wade-able stream network within the District. This information can help identify potential issues as well as locations that may warrant follow-up inspections or more in-depth evaluations. The information from the RSA can also serve as a baseline with which to compare information from these assessments in the future. All data collected as part of this program is housed in ArcGIS.

DOEE completed a baseline assessment of all wade-able streams within the District since the RSA began in 2019. DOEE field teams continued surveying streams for a second time during the 2025 reporting period. The teams surveyed approximately 40 miles of stream during the 2025 reporting period. Figure 5 shows all assessed streams to date, highlighting those assessed during the 2025 reporting year in red.

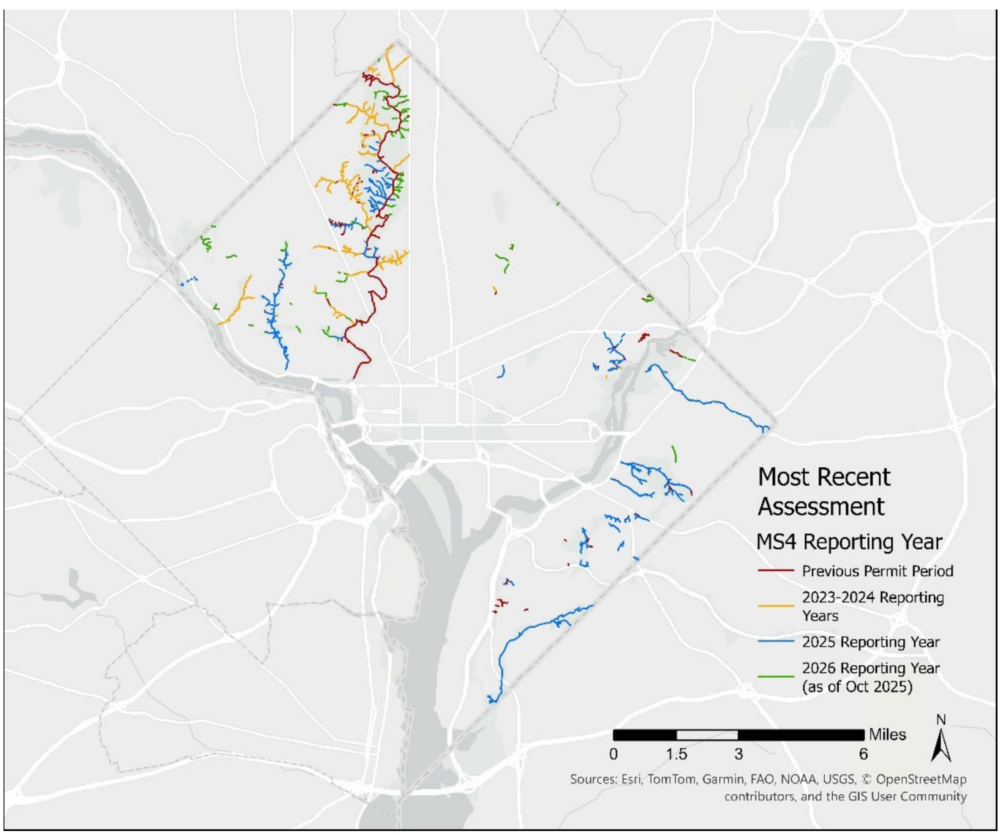

Figure 5 Rapid Stream Assessment Achievements

4.2 Wet Weather Discharge Monitoring

The Permittee shall conduct wet weather discharge monitoring for all the pollutants in Table 8 for a minimum of three wet weather events, as defined in Subsection 4.2.4 of this permit, each year. The Permittee shall report the results of each event in the DMR.

DOEE continues to implement a wet weather monitoring program at representative outfalls, Table 4. The minimum number of three (3) wet weather sampling events per site could not be achieved at all monitoring sites. The limitations encountered include:

- Contracting issues
    - In June 2024, a new contract was awarded for the wet weather sampling and analysis activities. The contractor selected (under a lowest bidder invitation) did not have the technical knowledge to appropriately estimate the logistics and costs for the permit-required tasks. The contracting office terminated that contract and a new contract was awarded in January 2025. In March 2025, the new contractor's QAPP was approved and monitoring initiated. Accordingly, DOEE was only able to collect monitoring data for three (3) months.
- Lack of sufficient qualifying wet weather events.
    - The requirements of Section 4.2 of the MS4 permit – wet weather discharge monitoring, i.e., the minimum number of three wet weather sampling events per site could not be achieved at all the monitoring sites. The permit's definition of "qualifying weather events" has changed, which means such events now occur less often. The intensity, frequency, duration, and spatial distribution of rain events over the MS4 Permit Area have not met EPA's guidance for qualifying rainfall. The rainfalls are more intense, less frequent, and of short duration. It is common that rain will occur in one part of the city but not in areas where out outfalls are scheduled for sample collection.

The wet weather sampling summary data for the required monitoring parameters is detailed in Table 5, Table 6, and Table 7. The geometric mean for each parameter was calculated to represent the event mean concentration (EMC).

Table 4 Monitoring Site Information

Site	Outfall	Watershed
SW1	Outfall 999 - Gallatin	Anacostia
SW2	Outfall 124 - Oxon Run	Potomac
SW3	Outfall 851 - Soapstone Creek	Rock Creek
SW4	Outfall 1035 - Kenilworth and Douglas	Anacostia
SW5	Outfall 260 - 53rd and Dix Street	Anacostia
SW6	Outfall 950 - Potomac Tributary	Potomac
SW7	Outfall 103 - Oxon Run	Potomac

SW8	Outfall 825 - Tilden and Reno	Rock Creek
SW9	Outfall 901 - Tributary to Pinehurst Br.	Rock Creek

Table 5 Potomac Watershed Wet Weather Sampling Data 2024-2025, geometric mean

Parameter	Unit	SW 2	SW 6	SW 7
Total Suspended Solids	mg/L	31.75	19.49	24.37
Nitrogen, Total as N	mg/L	1.15	1.96	1.76
Phosphorus, Total (as P)	mg/L	0.1051	0.1960	0.3723
Copper	mg/L	0.00589	0.01322	0.01934
Lead	mg/L	0.00175	0.00300	0.00314
Zinc	mg/L	0.03046	0.04630	0.12490
Cadmium	mg/L	0.00025	0.00025	0.00025
E. Coli	MPN/100ml	1967.5772	1564.8116	1967.5772

Table 6 Anacostia Watershed Wet Weather Sampling Data 2024-2025, geometric mean

Parameter	Unit	SW 1	SW 4	SW 5
Total Suspended Solids	mg/L	31.46	19.77	4.34
Nitrogen, Total as N	mg/L	1.45	1.67	1.00
Phosphorus, Total (as P)	mg/L	0.23	0.13	0.03
Copper	mg/L	0.01008	0.01063	0.00194
Lead	mg/L	0.00375	0.00490	0.00100
Zinc	mg/L	0.05727	0.06585	0.02000
Cadmium	mg/L	0.00025	0.00029	0.00025
E. Coli	MPN/100ml	4194.10	325.8315	4.6904

Table 7 Rock Creek Watershed Wet Weather Sampling Data 2024-2025, geometric mean

Parameter	Unit	SW 3	SW 8	SW 9
Total Suspended Solids	mg/L	15.45	41.95	13.01
Nitrogen, Total as N	mg/L	1.86	1.49	1.58
Phosphorus, Total (as P)	mg/L	0.33	0.14	0.30
Copper	mg/L	0.01828	0.01516	0.01429
Lead	mg/L	0.00289	0.00504	0.00134
Zinc	mg/L	0.05771	0.07795	0.02864
Cadmium	mg/L	0.00025	0.00025	0.00025
E. Coli	MPN/100ml	5607.8107	2419.6000	2419.6000

Table 8 provides the annual cumulative pollutant load occurring in the three main watersheds within the District.

Table 8 Annual Cumulative Pollutant Load in Each Watershed

Estimated Annual Cumulative Pollutant Loads in this Reporting Year (July 1, 2024 – June 30, 2025 data).					
Parameter	**Rock Creek**	**Anacostia River**	**Potomac River**	**Total**	**Units**
Total Suspended Solids	255.97	1,605.05	682.65	2,543.67	Tons

Nitrogen, Total as N	42,131.31	211,504.52	81,913.00	551,073.00	Pounds
Phosphorus, Total (as P)	6,891.74	22,189.38	8,979.42	59,140.00	Pounds
Copper	416.67	548.98	497.78	3,267.00	Pounds
Lead	79.64	184.26	108.59	717.00	Pounds
Zinc	1,467.38	3,427.30	2,281.12	9,832.00	Pounds
Cadmium	5.97	18.14	10.32	49.84	Pounds
E. Coli	8.05E+13	1.82E+15	3.08E+14	1.04E+15	MPN

DOEE calculated the potential pollutant load and volume reductions achieved through the annual BMP implementation, Table 9. The load and volume reduction estimates were developed using the District's Implementation Plan Modeling Tool (IPMT).

Table 9 Pollutant Load Reductions, 07/01/2024 - 06/30/2025

Watershed	**Runoff Retained (gallons)**	**TN (lbs)**	**TP (lbs)**	**TSS (lbs)**	**Copper (lbs)**	**Lead (lbs)**	**Cadmium[1] (lbs)**	**Zinc (lbs)**	**E. *coli* (Billion MPN)**
Anacostia	43,270,386	1,291	148	29,151	20.42	6.27	6.86	47.17	9,710
Rock Creek	16,323,873	539	64	8,892	8.54	2.72	2.98	16.77	4,121
Potomac River	15,472,423	464	53	6,243	7.29	2.26	2.47	14.09	3,474
Total	75,066,682	2,294	265	44,287	36.25	11.25	12.32	78.02	17,305

1. An EPA report (402-R-99-004B- linked below) that reviewed several studies with varied site conditions has documented mean partition coefficients for metals. DOEE used these metal-specific partition coefficients (Kd) and associated particle associated fraction (fp) values to model pollutant reduction for these metals through BMP implementation. Since many of the relevant low impact development (LID) practices have similar removal rates for lead and cadmium, the relationship between these two metals, their fp values, and the areas retrofitted were used to estimate cadmium reductions achieved through the Retrofit Program. DOEE will continue to use this methodology to estimate the pollutant load reduction for cadmium in Annual Reports.
EPA Report: http://www.epa.gov/sites/production/files/2015-05/documents/402-r-99-004b.pdf
2. Note that summations include MS4, Direct Drainage, and CSS areas.

As required, DOEE has attached all WLA benchmarks to this annual report, Table 11. This table provides a watershed scale summary that includes load reductions from the MS4 and direct drainage area for each non-CSS watersheds. The color coding indicates whether the Wasteload Allocation (WLA) has been achieved for that waterbody/pollutant combination, Table 10.

Table 10 Table Key

Green cells indicate that the WLA has already been achieved for that waterbody and pollutant combination.
Blue cells indicate that the benchmark load reduction was achieved or exceeded for that waterbody and pollutant combination.
Orange cells indicate that the benchmark load reduction was not achieved for that waterbody and pollutant combination.
Grey cells indicate that there is no MS4 WLA for that waterbody and pollutant combination, and therefore no benchmark has been established. Load reductions are provided for informational purposes only.

Table 11 Overall Summary of WLA Benchmark Achievements, 07/01/2024 - 06/30/2025

WLA Achieved	16
Benchmark Achieved	73
Benchmark Not Achieved	84
No WLA or benchmark	907

Table 12 Pollutant Load Reductions from BMP Implementation with WLA Benchmarks, 07/01/2024 to 06/30/2025

Watershed	Runoff Retained (gallons)	TN (lbs)	TP (lbs)	TSS (lbs)	Fecal Coliform (billion MPN)	BOD (lbs)	Oil and Grease (lbs)	Arsenic (lbs)	Copper (lbs)	Lead (lbs)	Cadmium [1] (lbs)	Mercury (lbs)	Zinc (lbs)	Chlordane (lbs)	DDD (lbs)	DDE (lbs)	DDT (lbs)	Dieldrin (lbs)	Heptachlor Epoxide (lbs)	PAH 1 (lbs)	PAH2 (lbs)	PAH 3 (lbs)	TPCB (lbs)	*E. coli* (Billion MPN)	Trash (lbs)
Anacostia	29,635,769	849.42	97.57	18,921.6	15,866	8,932	962.8	3.9E-01	1.3E+01	4.1E+00	4.5E+00	4.8E-02	3.1E+01	2.5E-03	7.6E-04	3.4E-03	8.7E-03	7.2E-05	2.4E-04	1.6E-01	1.0E+00	6.9E-01	2.0E-02	6,367.7	
Anacostia Lower	7,951,569	228.90	26.23	5,124.0	4,289	2,385	242.3	1.1E-01	3.6E+00	1.1E+00	1.2E+00	1.3E-02	8.4E+00	6.6E-04	2.1E-04	9.2E-04	2.4E-03	1.9E-05	6.4E-05	4.4E-02	2.8E-01	1.9E-01	5.5E-03	1,721.5	

Anacostia Upper	21,684,200	620.52	71.34	13,797.7	11,577	6,547	720.6	2.9E-01	9.8E+00	3.0E+00	3.3E+00	3.5E-02	2.3E+01	1.8E-03	5.6E-04	2.5E-03	6.4E-03	5.2E-05	1.7E-04	1.2E-01	7.6E-01	5.0E-01	1.5E-02	4,646.2	
ANAT F_DC	23,314,043	389.18	44.99	8,673.3	7,312	3,984	462.1	1.8E-01	6.2E+00	1.9E+00	2.1E+00	2.2E-02	1.4E+01	1.1E-03	3.5E-04	1.6E-03	4.0E-03	3.2E-05	1.1E-04	7.3E-02	4.7E-01	3.2E-01	9.4E-03	2,934.7	
ANAT F_MD	7,540,652	161.18	18.35	3,509.5	2,965	1,711	173.8	7.4E-02	2.5E+00	7.6E-01	8.3E-01	9.1E-03	5.8E+00	4.7E-04	1.4E-04	6.4E-04	1.6E-03	1.4E-05	4.6E-05	3.1E-02	2.0E-01	1.3E-01	3.9E-03	1,190.1	
Battery Kemble Creek	339,281	9.40	1.08	119.1	176	80	9.5	4.4E-03	1.5E-01	4.5E-02	4.9E-02	5.4E-04	2.9E-01	2.8E-05	8.5E-06	3.8E-05	9.7E-05	8.2E-07	2.7E-06	1.9E-03	1.2E-02	7.6E-03	2.3E-04	70.5	
Broad Branch	1,684,262	83.32	9.82	1,814.2	1,629	333	58.3	3.5E-02	1.3E+00	4.5E-01	4.9E-01	4.4E-03	2.7E+00	1.7E-04	7.5E-05	3.6E-04	8.9E-04	4.1E-06	1.3E-05	9.4E-03	7.9E-02	7.9E-02	1.9E-03	653.8	
C&O Canal	899,169	27.10	3.12	357.2	507	211	25.1	1.2E-02	4.3E-01	1.3E-01	1.5E-01	1.5E-03	8.2E-01	7.5E-05	2.4E-05	1.1E-04	2.8E-04	2.2E-06	7.2E-06	5.0E-03	3.2E-02	2.3E-02	6.4E-04	203.3	
Dalecarlia Tributary	1,045,662	29.29	3.34	367.1	541	245	29.2	1.3E-02	4.6E-01	1.4E-01	1.5E-01	1.7E-03	8.8E-01	8.6E-05	2.6E-05	1.2E-04	3.0E-04	2.5E-06	8.4E-06	5.7E-03	3.6E-02	2.3E-02	7.0E-04	217.3	
Dumbarton Oaks	6,343	0.18	0.02	3.2	3	1	0.2	8.2E-05	2.8E-03	8.4E-04	9.2E-04	1.0E-05	5.4E-03	5.2E-07	1.6E-07	7.0E-07	1.8E-06	1.5E-08	5.1E-08	3.5E-05	2.2E-04	1.4E-04	4.3E-06	1.3	
Fenwick Branch	116,738	3.31	0.38	58.0	60	23	4.0	1.5E-03	5.2E-02	1.6E-02	1.7E-02	1.9E-04	9.9E-02	9.6E-06	2.9E-06	1.3E-05	3.3E-05	2.8E-07	9.3E-07	6.4E-04	4.1E-03	2.6E-03	7.9E-05	24.3	
Fort Chaplin Tributary	33,277	1.16	0.12	20.4	17	10	1.0	4.3E-04	1.5E-02	4.4E-03	4.8E-03	5.3E-05	3.4E-02	2.7E-06	8.3E-07	3.7E-06	9.5E-06	8.1E-08	2.7E-07	1.8E-04	1.2E-03	7.5E-04	2.2E-05	6.9	
Fort Davis Tributary	271,514	7.52	0.86	166.2	141	81	8.3	3.5E-03	1.2E-01	3.6E-02	4.0E-02	4.3E-04	2.7E-01	2.2E-05	6.8E-06	3.0E-05	7.8E-05	6.6E-07	2.2E-06	1.5E-03	9.4E-03	6.1E-03	1.8E-04	56.4	
Fort Dupont Tributary	1,076,693	31.40	3.77	728.1	604	323	54.2	1.5E-02	5.1E-01	1.6E-01	1.7E-01	1.8E-03	1.2E+00	9.0E-05	2.9E-05	1.3E-04	3.3E-04	2.6E-06	8.6E-06	5.9E-03	3.9E-02	2.7E-02	7.7E-04	242.5	

Fort Stanton Tributary	11,101	0.31	0.04	6.8	6	3	0.3	1.4E-04	4.9E-03	1.5E-03	1.6E-03	1.8E-05	1.1E-02	9.1E-07	2.8E-07	1.2E-06	3.2E-06	2.7E-08	8.9E-08	6.1E-05	3.9E-04	2.5E-04	7.5E-06	2.3	
Foundry Branch	2,590,075	71.78	8.22	909.4	1,341	607	72.4	3.3E-02	1.1E+00	3.4E-01	3.8E-01	4.1E-03	2.2E+00	2.1E-04	6.5E-05	2.9E-04	7.4E-04	6.3E-06	2.1E-05	1.4E-02	9.0E-02	5.8E-02	1.7E-03	538.2	
Hickey Run	506,350	14.40	1.63	309.9	262	152	15.4	6.5E-03	2.2E-01	6.7E-02	7.4E-02	8.0E-04	5.1E-01	4.2E-05	1.3E-05	5.6E-05	1.4E-04	1.2E-06	4.0E-06	2.8E-03	1.8E-02	1.1E-02	3.4E-04	105.2	
Kingman Lake	2,040,466	56.72	6.49	1,249.0	1,056	612	62.2	2.6E-02	9.0E-01	2.7E-01	3.0E-01	3.2E-03	2.1E+00	1.7E-04	5.1E-05	2.3E-04	5.8E-04	4.9E-06	1.6E-05	1.1E-02	7.1E-02	4.6E-02	1.4E-03	424.0	
Klingle Valley Run	255,306	7.71	0.95	149.4	149	50	18.7	3.6E-03	1.2E-01	3.9E-02	4.3E-02	4.4E-04	2.4E-01	2.2E-05	7.2E-06	3.2E-05	8.2E-05	6.2E-07	2.0E-06	1.4E-03	9.3E-03	6.6E-03	1.9E-04	59.7	
Lower Beaverdam Creek																									
Luzon Branch	1,822,510	51.01	5.84	910.1	947	360	65.3	2.3E-02	8.1E-01	2.4E-01	2.7E-01	2.9E-03	1.6E+00	1.5E-04	4.6E-05	2.0E-04	5.2E-04	4.4E-06	1.5E-05	1.0E-02	6.3E-02	4.1E-02	1.2E-03	380.1	
MD Tidal Anacostia	191,735	5.59	0.63	117.4	99	58	5.8	2.5E-03	8.5E-02	2.6E-02	2.8E-02	3.0E-04	1.9E-01	1.6E-05	4.8E-06	2.1E-05	5.5E-05	4.6E-07	1.5E-06	1.1E-03	6.7E-03	4.3E-03	1.3E-04	39.8	
Melvin Hazen Valley Branch	61,849	1.71	0.20	30.7	32	12	2.1	8.0E-04	2.7E-02	8.2E-03	9.0E-03	9.8E-05	5.3E-02	5.1E-06	1.5E-06	6.9E-06	1.8E-05	1.5E-07	4.9E-07	3.4E-04	2.1E-03	1.4E-03	4.2E-05	12.9	
Nash Run	1,078,329	32.51	3.99	767.6	631	323	66.2	1.5E-02	5.3E-01	1.6E-01	1.8E-01	1.9E-03	1.2E+00	9.1E-05	3.0E-05	1.4E-04	3.5E-04	2.6E-06	8.6E-06	5.9E-03	4.0E-02	2.8E-02	8.0E-04	253.3	
Normanstone Creek	637,838	17.84	2.04	321.2	334	126	22.1	8.3E-03	2.8E-01	8.6E-02	9.4E-02	1.0E-03	5.5E-01	5.2E-05	1.6E-05	7.2E-05	1.8E-04	1.5E-06	5.1E-06	3.5E-03	2.2E-02	1.4E-02	4.3E-04	133.9	
Northwest Branch	7,251,100	203.61	23.22	4,456.4	3,766	2,175	220.9	9.3E-02	3.2E+00	9.7E-01	1.1E+00	1.2E-02	7.3E+00	6.0E-04	1.8E-04	8.1E-04	2.1E-03	1.8E-05	5.8E-05	4.0E-02	2.5E-01	1.6E-01	4.9E-03	1,511.5	

Oxon Run	4,687,895	135.08	15.47	1,728.4	2,509	1,099	132.0	6.2E-02	2.1E+00	6.5E-01	7.1E-01	7.6E-03	4.1E+00	3.9E-04	1.2E-04	5.4E-04	1.4E-03	1.1E-05	3.7E-05	2.6E-02	1.6E-01	1.1E-01	3.2E-03	1,007.0	
Pinehurst Branch	247,860	7.35	0.83	126.8	131	49	8.6	3.2E-03	1.1E-01	3.4E-02	3.7E-02	4.0E-04	2.2E-01	2.0E-05	6.3E-06	2.8E-05	7.2E-05	6.0E-07	2.0E-06	1.4E-03	8.7E-03	5.7E-03	1.7E-04	52.7	
Piney Branch	180,977	5.02	0.57	89.9	94	36	6.3	2.3E-03	8.0E-02	2.4E-02	2.6E-02	2.9E-04	1.5E-01	1.5E-05	4.5E-06	2.0E-05	5.2E-05	4.4E-07	1.4E-06	9.9E-04	6.3E-03	4.1E-03	1.2E-04	37.6	
Pope Branch	209,161	5.99	0.68	128.0	108	63	6.4	2.7E-03	9.2E-02	2.8E-02	3.0E-02	3.3E-04	2.1E-01	1.7E-05	5.2E-06	2.3E-05	6.0E-05	5.1E-07	1.7E-06	1.1E-03	7.3E-03	4.7E-03	1.4E-04	43.5	
Portal Branch	42,818	1.19	0.14	21.3	22	8	1.5	5.5E-04	1.9E-02	5.7E-03	6.2E-03	6.8E-05	3.6E-02	3.5E-06	1.1E-06	4.8E-06	1.2E-05	1.0E-07	3.4E-07	2.4E-04	1.5E-03	9.6E-04	2.9E-05	8.9	
Potomac Lower	6,828,097	217.37	25.08	2,916.5	4,050	1,600	191.8	9.6E-02	3.4E+00	1.1E+00	1.2E+00	1.2E-02	6.6E+00	5.8E-04	1.9E-04	8.8E-04	2.2E-03	1.7E-05	5.5E-05	3.8E-02	2.5E-01	1.8E-01	5.1E-03	1,625.2	
Potomac Middle	1,707,689	48.19	5.61	621.4	907	400	58.6	2.2E-02	7.7E-01	2.3E-01	2.6E-01	2.8E-03	1.5E+00	1.4E-04	4.4E-05	1.9E-04	5.0E-04	4.1E-06	1.4E-05	9.4E-03	6.0E-02	3.9E-02	1.2E-03	363.9	
Potomac Upper	5,860,777	168.35	19.29	2,160.2	3,136	1,374	163.9	7.7E-02	2.7E+00	8.1E-01	8.9E-01	9.5E-03	5.1E+00	4.8E-04	1.5E-04	6.7E-04	1.7E-03	1.4E-05	4.7E-05	3.2E-02	2.1E-01	1.4E-01	4.0E-03	1,258.6	
POTTF_DC	19,286,648	452.31	53.72	7,425.8	8,595	2,934	596.3	2.0E-01	7.1E+00	2.3E+00	2.5E+00	2.5E-02	1.4E+01	1.1E-03	4.1E-04	1.9E-03	4.7E-03	3.2E-05	1.1E-04	7.3E-02	5.0E-01	4.0E-01	1.1E-02	3,449.5	
POTTF_MD	1,078,966	22.05	2.51	275.5	406	184	21.9	1.0E-02	3.5E-01	1.0E-01	1.1E-01	1.2E-03	6.6E-01	6.4E-05	2.0E-05	8.7E-05	2.2E-04	1.9E-06	6.3E-06	4.3E-03	2.7E-02	1.8E-02	5.3E-04	163.1	
Rock Creek Lower	1,596,909	59.26	8.15	1,308.2	1,207	331	239.1	2.7E-02	9.8E-01	3.4E-01	3.7E-01	3.4E-03	2.0E+00	1.5E-04	5.8E-05	2.7E-04	6.6E-04	3.9E-06	1.3E-05	8.8E-03	6.6E-02	5.7E-02	1.5E-03	484.5	
Rock Creek Upper	5,591,068	192.98	22.34	3,763.1	3,658	1,105	195.8	8.6E-02	3.0E+00	9.7E-01	1.1E+00	1.1E-02	6.0E+00	4.9E-04	1.7E-04	7.9E-04	2.0E-03	1.4E-05	4.5E-05	3.1E-02	2.1E-01	1.7E-01	4.5E-03	1,468.3	
Soapstone Creek	1,373,892	38.09	4.36	682.4	711	271	47.6	1.8E-02	6.1E-01	1.8E-01	2.0E-01	2.2E-03	1.2E+00	1.1E-04	3.4E-05	1.5E-04	3.9E-04	3.3E-06	1.1E-05	7.6E-03	4.8E-02	3.1E-02	9.2E-04	285.5	

Texas Avenue Tributary	1,810,358	51.52	5.90	1,150.8	966	543	55.2	2.4E-02	8.2E-01	2.5E-01	2.7E-01	2.9E-03	1.9E+00	1.5E-04	4.7E-05	2.1E-04	5.3E-04	4.4E-06	1.4E-05	1.0E-02	6.4E-02	4.2E-02	1.2E-03	387.6	
Tidal Basin	3,172	0.09	0.01	1.1	2	1	0.1	4.1E-05	1.4E-03	4.2E-04	4.6E-04	5.0E-06	2.7E-03	2.6E-07	7.9E-08	3.5E-07	9.1E-07	7.7E-09	2.5E-08	1.7E-05	1.1E-04	7.1E-05	2.1E-06	0.7	
Washington Ship Channel	1,215,755	33.69	3.86	426.8	629	285	34.0	1.6E-02	5.4E-01	1.6E-01	1.8E-01	1.9E-03	1.0E+00	1.0E-04	3.0E-05	1.3E-04	3.5E-04	2.9E-06	9.7E-06	6.7E-03	4.2E-02	2.7E-02	8.2E-04	252.6	
Watts Branch	2,073,575	60.76	6.95	1,391.0	1,153	665	63.2	2.8E-02	9.8E-01	3.0E-01	3.3E-01	3.5E-03	2.2E+00	1.7E-04	5.5E-05	2.5E-04	6.4E-04	5.0E-06	1.7E-05	1.1E-02	7.4E-02	5.1E-02	1.5E-03	462.8	
Watts Branch - Lower	819,276	24.57	2.85	616.2	499	289	25.0	1.2E-02	4.2E-01	1.3E-01	1.4E-01	1.5E-03	9.7E-01	7.0E-05	2.4E-05	1.1E-04	2.8E-04	2.0E-06	6.5E-06	4.5E-03	3.1E-02	2.2E-02	6.3E-04	200.3	
Watts Branch - Upper	1,254,299	36.18	4.09	774.8	654	376	38.2	1.6E-02	5.6E-01	1.7E-01	1.8E-01	2.0E-03	1.3E+00	1.0E-04	3.2E-05	1.4E-04	3.6E-04	3.0E-06	1.0E-05	6.9E-03	4.4E-02	2.8E-02	8.5E-04	262.5	
CSS - Anacostia	13,634,617	441.18	50.79	10,229.8	8,329	4,095	432.6	2.0E-01	7.0E+00	2.2E+00	2.4E+00	2.5E-02	1.6E+01	1.2E-03	3.9E-04	1.8E-03	4.6E-03	3.3E-05	1.1E-04	7.5E-02	5.1E-01	3.7E-01	1.0E-02	3,342.8	
CSS - Potomac	1,075,860	30.22	3.46	545.2	565	213	37.3	1.4E-02	4.8E-01	1.5E-01	1.6E-01	1.7E-03	9.3E-01	8.9E-05	2.7E-05	1.2E-04	3.1E-04	2.6E-06	8.6E-06	5.9E-03	3.8E-02	2.5E-02	7.3E-04	226.6	
CSS - Rock Creek	9,135,896	287.06	33.05	3,820.9	5,402	2,141	255.5	1.3E-01	4.5E+00	1.4E+00	1.5E+00	1.6E-02	8.8E+00	7.7E-04	2.6E-04	1.2E-03	3.0E-03	2.2E-05	7.3E-05	5.0E-02	3.4E-01	2.4E-01	6.8E-03	2,167.9	

Note that summations include MS4 and Direct Drainage areas. There is no distinction between runoff draining into a water body and runoff that is conveyed in collection system within the three CSS segments.
"'-'" indicates no reductions resulted from BMP implementation.

1. An EPA report (402-R-99-004B- linked below) that reviewed several studies with varied site conditions has documented mean partition coefficients for metals. DOEE used these metal-specific partition coefficients (Kd) and associated particle associated fraction (fp) values to model pollutant reduction for these metals through BMP implementation. Since many of the relevant low impact development (LID) practices have similar removal rates for lead and cadmium, the relationship between these two metals, their fp values, and the areas retrofitted were used to estimate cadmium reductions achieved through the Retrofit Program. DOEE will continue to use this methodology to estimate the pollutant load reduction for cadmium in Annual Reports. http://www.epa.gov/sites/production/files/2015-05/documents/402-r-99-004b.pdf.

4.7.2.2 Estimate Progress Towards all Numeric Limits

The Permittee shall estimate annual progress towards all numeric limits in Subsection 1.5.3.1 of this permit for acres managed and pounds of trash in the Anacostia River.

The District continues to implement and enforce its Stormwater Management Program in accordance with the MS4 Permit and the Revised Stormwater Management Plan.

Table 13 Annual Progress Towards Numeric Limits of the MS4 Permit for Acres Managed, 07/01/2024 - 06/30/2025

Major Drainage Basin	Sewershed	Regulated PROW (square feet)	Regulated Non-PROW Parcels (square feet)	Voluntary Retrofits (square feet)	Total (square feet)	Total (acres)	TMDL IP Target (acres)
Anacostia	CSS	114,616	2,328,455	266,079	**2,709,150**	**62**	
	DD	10,479	327,214	522,563	**860,256**	**20**	
	MS4	77,567	1,864,838	799,322	**2,741,726**	**63**	
	MS4 + DD	88,046	2,192,051	1,321,885	**3,601,982**	**83**	**125**
	MS4 + DD + CSS	202,662	4,520,506	1,587,964	**6,311,132**	**145**	
Potomac	CSS	1,440	60,597	51,054	**113,091**	**3**	
	DD	144	262,550	19,296	**281,990**	**6**	
	MS4	241,017	1,062,030	173,758	**1,476,804**	**34**	
	MS4 + DD	241,161	1,324,580	193,054	**1,758,794**	**40**	**76**
	MS4 + DD + CSS	242,601	1,385,177	244,108	**1,871,885**	**43**	
Rock Creek	CSS	797,561	878,788	214,386	**1,890,735**	**43**	
	DD	-	94,020	62,008	**156,028**	**4**	
	MS4	585,884	746,315	181,948	**1,514,147**	**35**	
	MS4 + DD	585,884	840,335	243,956	**1,670,175**	**38**	**34**
	MS4 + DD + CSS	1,383,445	1,719,123	458,342	**3,560,910**	**82**	
TOTAL	CSS	913,617	3,267,840	531,519	**4,712,976**	**108**	
	DD	10,623	683,784	603,867	**1,298,274**	**30**	
	MS4	904,467	3,673,182	1,155,028	**5,732,677**	**132**	

	MS4 + DD	915,090	4,356,966	1,758,895	**7,030,951**	**161**	**235**
	MS4 + DD + CSS	1,828,708	7,624,806	2,290,413	**11,743,926**	**270**	

Table 14 Annual Progress Towards Numeric Limits of the MS4 Permit for Trees Planted and Trash Removed

Numeric Requirement	Achievement During Reporting Year	Percent Complete	Achievement During Permit Term
Achieve a minimum net increase of 38,850 trees in the MS4 Permit Area	8,214	39.5%	The District is constantly updating SGS data to accurately capture number of trees planted
Remove 108,347 pounds of trash annually from the Anacostia River	1,825,678 pounds	NA	Meeting annual trash reduction goal

4.7.2.3 Multi-faceted Suite of Indicators

Using all other data and information collected per the water quality assessment requirements of Part 4 of this permit, the Permittee shall continue to implement the suite of indicators identified in the 2022 SWMP that address discharge quality as well as receiving water quality. These indicators shall balance current status with long-term trends in order to determine elements of the program that are effective and those needing additional improvement. Any changes/additions to the suite of indicators shall be included with the updated SWMP submitted to EPA as part of the application package for permit renewal per Section 2.10 of this permit.

DOEE is on track to meet this permit requirement and will be working with EPA and stakeholders to develop a multi-faceted suite of indicators that address discharge and receiving body water quality.

4.7.3 Synthesis of Strengths and Areas of Improvement

In each annual report the Permittee shall provide a short synthesis of areas of the program deemed effective with ongoing effort, and areas where additional strategies are needed to effectively address certain pollutants or sources, supported by interpretation of both programmatic and watershed indicators. Conclusions shall be based on interpretations of the indicators.

Strengths

DOEE has had continued success implementing many stormwater management programs. Notable achievements include:

1. The District has retrofitted 328.71 acres in the MS4 Permit area during the last two reporting periods.
2. Planted 8,214 net trees in MS4 area during this reporting period (accounting for mortality).
3. Installed 33.6 acres of green infrastructure through the Stormwater Retention Credit (SRC) Price Lock Program, with another 8.36 acres in design, permitting, and/or construction.
4. Assessed 40 miles of wadable streams in the District as part of the second round of Rapid Stream Assessments.
5. Continued the targeted trash and litter source control programs that include any food service product designed for single use, which includes foam and straws.
6. Steadily increased and maintained compliance rates for bag law and coal tar ban inspections.
7. Continued macroinvertebrate, fish, habitat, and ambient water quality monitoring each year.
8. Conducted maintenance of GI on District property.

Areas of Improvement

DOEE has identified several program areas where we are making improvements:

1. Based on results from the Salt Pilot, the District does not believe that using an alternative product is a viable change. DOEE and DPW are pursuing other updates to DPW's salt procedures during winter weather events.

2. DOEE has a new contract in place for the outfall monitoring program; efforts are being made to identify solutions to qualifying wet weather event challenges over the last few years.
3. Since the last permit, the District has made large strides in District Pollution Prevention implementation. All District critical source facilities have an approved SWPPP. Strategies that DOEE is using to make continued improvements to this program are: O&M compliance performance measures, at least quarterly interagency coordination, targeted Stormwater Pollution Prevention Plan development efforts, increased municipal staff training, and mock inspections and site walkthroughs.
4. DOEE has continuously updated data capture and analysis methods for BMP installations, tree plantings, and acres managed. This ensures the most accurate and up-to-date information is being reported.
5. The stormwater program needs more resources to fulfill the requirements of the permit. DOEE is continuing to explore options to accelerate stormwater management implementation and increase funding for program overall.