

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
<b>URBAN STORMWATER</b>			
Urban Stormwater Management Policy and Implementation			
31-Dec-21	<p><b>Milestone:</b> Numeric: Manage 200 acres of the District's MS4 area with runoff reduction stormwater best management practices.</p> <p><b>Description:</b> The District's MS4 permit sets a 5-year goal to manage 1,038 acres with stormwater BMPs. Year-to-year performance will vary, so the numeric milestone provided here to manage 200 acres using the Stormwater Performance Standard – Runoff Reduction BMP represents a conservative estimate of two-year progress and also does not include stormwater management on federal lands or managed through tree planting. Phase III WIP Page 86.</p>	DOEE	<p><b>Complete:</b> The District achieved 176 acres managed with stormwater BMPs during the 2021 reporting year and 344 acres during the 2020 reporting year. To date, the District has achieved 882 acres managed during the current MS4 Permit term, which is on track to meet the Permit's 5-year goal to manage 1,038 acres.</p>
31-Dec-21	<p><b>Milestone:</b> Finish evaluation of potential options to update District's stormwater regulations and initiate rulemaking process, if appropriate.</p> <p><b>Description:</b> Assess opportunities to implement new stormwater regulations for projects that do not trigger the current regulations. If new regulations are feasible, begin discussions with stakeholder groups for feedback. Phase III WIP Page 87.</p>	DOEE	<p><b>Complete:</b> DOEE has completed the evaluation of opportunities for new stormwater regulations and explored the options for new proposed rulemaking with the District's Executive Office of the Mayor, who has given pre-clearance approval for the potential rulemaking updates.</p>

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31-Dec-21	<p><b>Milestone:</b> Evaluate potential stormwater fee increase.</p> <p><b>Description:</b> Evaluate options for increasing the District's stormwater fee, including an assessment of opportunities to adjust the stormwater fee to cover new programs and BMP maintenance. Phase III WIP Page 90.</p>	DOEE	<p><b>Complete:</b> The District completed an evaluation of a potential stormwater fee increase in 2020. DOEE included the results of these findings as an attachment in our 2020 MS4 Annual Report submission seen here: <a href="https://doee.dc.gov/publication/ms4-discharge-monitoring-and-annual-reports">https://doee.dc.gov/publication/ms4-discharge-monitoring-and-annual-reports</a> (see 2020 MS4 Annual Report Attachments).</p>
31-Dec-21	<p><b>Milestone:</b> Work with District agencies to evaluate best management practice (BMP) maintenance efforts.</p> <p><b>Description:</b> Work with District agencies to coordinate existing BMP maintenance efforts and assess opportunities for a District-wide green infrastructure strategy. Phase III WIP Page 8.</p>	DOEE	<p><b>Complete and Ongoing:</b> In 2021 DOEE dedicated funding from the American Rescue Plan Act (ARPA) to support an overhaul of how the District manages stormwater best management practices. DOEE will now be the lead agency on the management of all District-owned Green Infrastructure practices. DOEE is currently coordinating with sister agencies in support of the project and is establishing grants and contracts to begin this maintenance work in 2022.</p>
31-Dec-21	<p><b>Milestone:</b> Implement regulatory amendments to prioritize use of High-Impact Stormwater Retention Credits (SRCs).</p> <p><b>Description:</b> Evaluate options for amending the District's stormwater regulations to require developers buying SRCs to use High-Impact SRCs if they are available and affordable. High-Impact SRCs are generated by new, voluntary green infrastructure (GI) in the MS4 instead of SRCs from practices built pre-2013, in the combined sewer area, or in excess of a regulatory requirement. Phase III WIP Page 103.</p>	DOEE	<p><b>Complete and Ongoing:</b> In September 2020, DOEE published proposed regulations prioritizing the use of High-Impact SRCs generated from new, voluntary GI in the MS4. Most regulated development projects that opt to meet a portion of their stormwater retention obligations offsite will be required to use High-Impact SRCs, providing a greater benefit to District waterbodies than SRCs generated from other projects and sites. DOEE has continued to refine and strengthen the previously proposed regulations and will propose updated regulations in early 2022.</p>

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Target Date	Milestone & Description	Agency	Update
31-Dec-21	<p><b>Milestone:</b> Continue implementation of the Stormwater Retention Credit (SRC) Price Lock Program, including support for developers to purchase from SRC Price Lock Program participants.</p> <p><b>Description:</b> SRC Price Lock program enables participants to sell SRCs to the District government at a fixed price, providing confidence to investors who commit funding to green infrastructure (GI) projects. DOEE has \$11.5 million available to fund this program. DOEE can use the funds to purchase and retire SRCs. DOEE will enhance the program to generate demand from developers, including using the funds to pay participants to sell their SRCs at reduced rates, particularly in large or multi-year transactions, to motivate developers to purchase from SRC Price Lock Program participants. Phase III WIP Page 100.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE supports SRC Aggregators through the SRC Price Lock Program by incentivizing privately funded new, voluntary GI in the MS4 area of the District.</p> <p>Throughout the 2021 reporting period, SRC Aggregators sold more than 67,000 SRCs on the private market. Many of these sales utilized a subsidy from the Price Lock program to allow a more competitive sale. The subsidy program allowed DOEE to unreserve over \$100,000 that can be used to incentivize more participation in the SRC Price Lock Program.</p> <p>The SRC Price Lock Program was on hold for new applications from March 2020-August 2021 due to budget uncertainty during the COVID-19 public health emergency. DOEE reopened the program for applications in August 2021 and awarded \$1.7 million new price lock agreements.</p> <p>DOEE is now holding two annual application periods for the SRC Price Lock Program, one in the spring and one in the fall. DOEE will be prioritizing Price Lock Program applications that also address environmental justice issues in the District.</p>

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31-Dec-21	<p><b>Milestone:</b> Make progress on developing incentives for building SRC-generating green infrastructure (GI) in the Public Right of Way (PROW).</p> <p><b>Description:</b> Streamline the permitting process to build GI in the PROW to generate SRCs. Develop incentives to reduce the financial risks associated with building GI in the PROW to generate SRCs. Phase III WIP Page 103.</p>	DOEE	<p><b>Completed and Ongoing:</b> DOEE is coordinating with the District's Department of Transportation (DDOT) on the development and implementation of a streamlined permitting process and an interagency agreement to facilitate a program to incentivize MS4 GI retrofits in the PROW. DOEE has signed an MOA with DDOT agreeing to backstop the maintenance of SRC generating facilities in the PROW. DOEE has actively worked with SRC Aggregators to utilize this process to design GI projects for the PROW. Further development of the program specifics is ongoing.</p>
31-Dec-21	<p><b>Milestone:</b> Continue to implement SRC Aggregator Startup Grant Program.</p> <p><b>Description:</b> SRC aggregating businesses that want to design and install GI from multiple projects can apply for an SRC Aggregator Startup Grant of up to \$75,000. These grants support technical and outreach work to identify GI opportunities on properties whose owners are interested in the financial and other benefits of SRC-generating GI. Phase III WIP Page 102.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE continued to fund grant activities of three SRC-aggregating businesses during the reporting year. The work by the SRC Aggregators was focused on outreach and technical evaluation for identifying opportunities for GI implementation on private property.</p> <p>New awards under the SRC Aggregator Startup Grant Program were delayed due to the COVID-19 public health emergency and a District-wide spending freeze. DOEE did not reopen the program back up during the reporting year, but will make grants available again in early 2022.</p>

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31-Dec-21	<p><b>Milestone:</b> Implement SRC Incentive program to encourage outreach and engagement with community stakeholders and the inclusion of co-benefits to SRC generating practices.</p> <p><b>Description:</b> Develop initiative to allow SRC generators or aggregators to receive additional financial incentives if they conduct outreach to communities who may be impacted by SRC generating projects in order to increase understanding of and support for new green infrastructure. Generators can also receive funding to incorporate elements that provide co-benefits in their installations. Will utilize the WIP Action Team Co-Benefit Fact Sheets to inform co-benefit outreach. Phase III WIP Page 103 and FY20 WIP Assistance Funding.</p>	DOEE	<p><b>Not Complete:</b> Progress in issuing grants for this work has been delayed by staff turnover and the COVID-19 public health emergency, but DOEE is still committed to implementing an SRC incentive program. DOEE has drafted an RFA and anticipates releasing it in early 2022.</p>
31-Jan-20	<p><b>Milestone:</b> Release updated Stormwater Management Guidebook.</p> <p><b>Description:</b> Updates will include green roof and solar panel installations, expanded rainwater harvesting treatment guidelines, and matching DDOT's Bioretention Soil Media Mix for consistent installation at facilities across DC. Phase III WIP Page 88.</p>	DOEE	<p><b>Complete:</b> DOEE published the first full update to the Stormwater Management Guidebook since 2014. Updates included all the technical updates referenced as well as revisions corresponding to the Final Rulemaking published on the same day. DOEE aims to update the Guidebook on a 2 to 3-year cycle in the future. The Guidebook can be found here: <a href="https://doee.dc.gov/swguidebook">https://doee.dc.gov/swguidebook</a>.</p>

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Inspections and Enforcement			
31-Dec-21	<p><b>Milestone:</b> Implement a targeted compliance inspection program of industrial discharges conducting aggregate production and recycling activities.</p> <p><b>Description:</b> Conduct targeted compliance inspections of aggregate facilities and other facilities known to potentially contribute suspended solids to stormwater flows and/or point-source discharges. Efforts shall include, but are not limited to, aggressive enforcement actions against ineffective BMPs and failure to comply with maintenance schedules; increased re-inspection frequency for compliance assurance; and ensuring compliance with new Multi-Sector General Permit (MSGP) requirements for benchmark monitoring and effluent guidelines. Phase III WIP Page 139.</p>	DOEE	<p><b>Complete and Ongoing:</b> While physical compliance monitoring inspections were impacted by the COVID-19 public health emergency, DOEE conducted compliance inspections at five aggregate facilities or facilities known to stockpile aggregate and potentially contribute suspended solids to stormwater flow. Additionally, DOEE played a vital role in EPA's successful execution of two enforcement actions against aggregate facilities.</p>
31-Dec-21	<p><b>Milestone:</b> Implement strategic sewershed investigation of illicit domestic wastewater discharges.</p> <p><b>Description:</b> Conduct strategic sewershed investigation of District sewersheds to identify and eliminate illicit sources of domestic wastewater. This includes but is not limited to traditional illicit discharges and illegal disposal investigation methods and techniques like CCTV and dye testing. DOEE will also use new innovative sampling and analysis technologies, such as sucralose and qPCR. These sewersheds include Watts Branch and Nash Run, priority subwatersheds identified in the District's Phase III WIP. Phase III WIP Pages 59 &amp; 139.</p>	DOEE	<p><b>Complete and Ongoing:</b> This strategic sewershed investigation is ongoing. In FY20 and FY21 the investigation found illicit sewage impacts to the MS4; however, due to the complexity of these sewer system, specific sources were not identified. DOEE intends on continuing this milestone through FY23 focusing on identifying specific sources of the illicit sewage sources.</p>

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31-Dec-21	<p><b>Milestone:</b> Evaluate lessons learned from pilot Self Inspection Self Reporting (SISR) program.</p> <p><b>Description:</b> Conduct evaluation of SISR pilot program to determine potential changes to the program to increase participation and efficiency. Phase III WIP Page 123.</p>	DOEE	<p><b>Complete:</b> During the 2020-2021 reporting period DOEE conducted a review of the Self-Inspection Self-Reporting (SISR) pilot program. DOEE's review found the SISR program provides value and benefit to the BMP compliance monitoring program; however, the review also found areas for significant improvement. DOEE proposes the development and implementation of these improvements during the 2022-2023 reporting period.</p>

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Restoration			
31-Dec-21	<p><b>Milestone:</b> Numeric: Complete construction of two stream restoration and outfall projects and complete the designs for one stream restoration project.</p> <p><b>Description:</b> Complete the Branch Avenue Park stream restoration project, measuring 550 linear feet, and Park Drive stream restoration project, measuring 1,300 linear feet. Additionally, DOEE will complete designs for the stream restoration of Fort Dupont, measuring 13,000 linear feet. DOEE has two Full Time Equivalents (FTEs) dedicated to stream restoration work. The Urban Stream Restoration BMP would increase 1,850 linear feet by the end of 2021. The Fort Dupont project will increase the Urban Stream Restoration BMP post-2021. Phase III WIP Page 106.</p>	DOEE	<p><b>Complete and Ongoing:</b> In 2020 DOEE completed the Branch Avenue Park stream restoration project, measuring 550 linear feet. DOEE did not complete the Park Drive Stream Restoration but did award the design build contract and expects construction to begin in 2022. DOEE also advanced designs for the Stickfoot Branch stream restoration project which will include 950 linear feet of stream work to the 60% design phase and completed all NEPA Compliance. DOEE also advanced stream restoration designs at Fort Dupont to the 30% design phase, which will restore over 17,000 feet of stream and restore 5-7 acres of wetlands.</p> <p>Additionally, DOEE reviewed proposals for the Oxon Run Design Project and are awaiting the award of the design contract which will result in over 16,000 feet of stream restoration. Two outfalls were stabilized at the Branch Avenue Park stream restoration project. The Stickfoot Branch project will stabilize four outfalls. The Fort Dupont project will stabilize five outfalls. The Park Drive project will stabilize four outfalls.</p>



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31-Dec-21	<p><b>Milestone:</b> Numeric: Initiate three Environmental Assessments for stream restoration projects.</p> <p><b>Description:</b> Work with the National Park Service to perform Environmental Assessments (EAs) for restoring three tributaries in the District of Columbia: Pinehurst Branch, Stickfoot Branch, and Oxon Run. EAs are needed in advance of designing and constructing these stream restoration projects. The Pinehurst and Stickfoot Branch Stream Restoration projects will be completed post-2021 and will add 8,700 linear feet of Urban Stream Restoration BMP towards DOEE's 2025 implementation targets. The Oxon Run Stream Restoration was not included in DC's Phase III WIP Implementation Scenario given it is scheduled for completion post-2025. When completed it will add an additional 16,000 linear feet of Urban Stream Restoration BMP. Phase III WIP Page 106.</p>	DOEE	<p><b>Complete:</b> DOEE completed the Environmental Assessment (EA) for Stickfoot Branch with the issuance of a Finding of No Significant Impact (FONSI). DOEE advanced the Pre-NEPA process for both Fort Dupont and Pinehurst Branch in 2020. DOEE put the Oxon Run Design and EA project out for bids in 2021, with an award and work commencing in 2022.</p>
31-Dec-21	<p><b>Milestone:</b> Numeric: Initiate two large-scale Environmental Assessments covering outfalls on National Park Service land.</p> <p><b>Description:</b> Work with the National Park Service to initiate Environmental Assessments (EAs) for outfalls located within the jurisdiction of Rock Creek National Park and National Capital Parks East. EAs are needed in advance of designing and constructing outfall restoration projects. Completion of the Outfall Restoration project will be completed post-2021 and will result in an additional 1,500 linear feet of Outfall Restoration BMP. DC did not include Outfall Restoration efforts in the Phase III WIP 2025 implementation scenario since it is not yet a fully credited BMP. Phase III WIP Page 106.</p>	DOEE	<p><b>Completed:</b> DOEE has readjusted this milestone. Instead of focusing on large scale Environmental Assessments (EAs) for outfalls on Park Service land, NPS is allowing DOEE to work on outfall areas with a categorical exclusion (CATEX). The EAs that DOEE advanced for Stickfoot Branch, Fort Dupont, and Pinehurst Branch will stabilize 13 outfalls. The Branch Ave projected stabilized two outfalls.</p> <p>DOEE plans to complete restoration in these areas and then DOEE and NPS will evaluate outfall areas that remain to determine how to proceed.</p>

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31-Dec-21	<p><b>Milestone:</b> Numeric: Implement 44 acres of Urban Tree Planting BMP as progress toward District goal of 40% Urban Tree Canopy by 2032.</p> <p><b>Description:</b> The District has developed an urban canopy plan as a roadmap towards this goal. The MS4 Permit sets a 5-year goal to plant 33,525 trees in the MS4 area. In 2019, RiverSmart Homes eliminated copayments for trees, making them free to property owners to increase implementation. Phase III WIP Pages 87 &amp; 106.</p>	DOEE	<p><b>Complete:</b> In Program year 2021, DOEE, The District Department of Transportation (DDOT), and partners planted a net 12,356 trees District-wide and a net 8,218 trees in the MS4 area, as reported to EPA. This implementation met program year 2021 goals. Applying the CBP's assumption of 300 trees per acre this equals 41.2 acres planted in calendar year 2021 with an additional 45.5 acres in calendar year 2020.</p> <p>The DOEE tree planting grant entered year 2 in Nov. 2021 that will plant 3,500 trees annually. DDOT funding remained committed at \$650,000 annually. Grantee Casey Trees continues its outreach efforts to prioritize new plantings in areas of the MS4, areas of low canopy and extreme heat exposure vulnerability.</p>
31-Dec-21	<p><b>Milestone:</b> Target watersheds around stream restoration projects for RiverSmart incentive programs and complete approximately 1,000 audits annually.</p> <p><b>Description:</b> The District has an aggressive stream restoration program. As a part of stream restoration projects, DOEE does targeted outreach to properties in the subwatersheds to encourage voluntary stormwater retrofits through incentives and rebates. Encouraging property owners to undertake stormwater retrofits on their land aids in community buy-in and responsibility for the District's stream restoration efforts. The District will engage residents in this manner around the Branch Avenue Park and Park Drive restoration projects. Phase III WIP Pages 106 &amp; 112.</p>	DOEE	<p><b>Complete:</b> RiverSmart Homes audited 2,070 homes between January 1, 2020 and December 31, 2021. Due to the COVID-19 public health emergency, the program was paused from April 1, 2020 to May 30, 2020. During this time capacity of the RiverSmart Homes staff was reduced by 66% for 120 days as 4 of the 6 auditors were called to support other District agencies in the collective response to the COVID-19 pandemic.</p>

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31-Dec-21	<p><b>Milestone:</b> Retrofit parks and schools for upland Low Impact Development (LID) projects.</p> <p><b>Description:</b> Target parks and school parcels for stormwater retrofits because they are cost-effective and good sites for educating the public. DOEE is working with the Department of Parks and Recreation (DPR) to install LID projects at five DPR recreation centers/parks. Additionally, DOEE is also working with public, private, and charter schools to retrofit six schools with LID projects while training teachers on using the sites to educate students. Phase III WIP Page 111.</p>	DOEE	<p><b>Complete:</b> In 2021 DOEE coordinated the design and construction of low impact development (LID) retrofits at nine project sites, including five Department of Parks and Recreation facilities and four DC Public and Charter School facilities. The school sites are St. Thomas More Academy, Friendship Armstrong Public Charter High School, Stanton Elementary, and Noyes Elementary. The five Parkland sites include Palisades Recreation Center, Douglass Recreation Center, Woody Ward Recreation Center, Fort Greble Park and Fort Steven Recreation Center.</p>
31-Dec-20	<p><b>Milestone:</b> Develop Critical Area Regulations that address living shorelines, floodplain management, wetlands and wildlife.</p> <p><b>Description:</b> Under the Fisheries and Wildlife Omnibus Bill, DOEE is required to develop regulations for critical areas, defined as areas containing species of local importance, wetlands, frequently flooded areas, fish and wildlife habitat conservation areas, and critical aquifer recharge areas. The development of these regulations will happen in stages. DOEE will seek feedback on the draft wetland and stream regulations and publish a rulemaking for this first chapter of critical areas regulations. Phase III WIP Page 127.</p>	DOEE	<p><b>Complete:</b> On May 15, 2021 DOEE adopted a final rulemaking to add new Chapters 25 (Critical Area – General Rules) and 26 (Critical Area – Wetlands and Streams) to Title 21 of the District of Columbia Municipal Regulations (DCMR). These rules became effective upon publication in the DC Register.</p>

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31-Dec-21	<p><b>Milestone:</b> Initiate a Natural Resource Damage Assessment (NRDA) for the Anacostia River.</p> <p><b>Description:</b> Work with Federal, Maryland, and District trustees to initiate a NRDA that is required under the Federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the District of Columbia Brownfield Revitalization Act. This NRDA will determine the damages caused by contamination and resources necessary for restoration of the Anacostia River as agreed upon by NRDA trustees. Phase III WIP Page 126.</p>	DOEE	<p><b>Complete and Ongoing:</b> Implementation of the NRDA for the Anacostia River is proceeding on track. The NRDA process has three steps: (1) Pre-Assessment Screen (PAS) - determines if NRDA should proceed; (2) Damage Assessment - specifies which resources have been harmed, to what extent, and costs of damages; and (3) Restoration Plan – describes restoration projects (restoration alternatives will be reviewed by the public). The PAS was completed in October 2021. The Damage Assessment process has commenced with USFWS and NPS taking the lead. DOEE will identify/quantify damages to District-specific resources (groundwater, cultural resources). The Anacostia River Damage Assessment will continue throughout 2022.</p>

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Outreach and Engagement Strategies			
31-Dec-21	<p><b>Milestone:</b> Refine the Community Stormwater Solutions Grant program to engage with new partners.</p> <p><b>Description:</b> Partner with the Chesapeake Bay Trust to evaluate, refine, and administer the Community Stormwater Solutions Grant Program in order to better support the efforts of District-based small businesses, nonprofits, faith-based organizations, and educational institutions to protect and enhance the District's water bodies and watersheds, and support the District's emerging green economy, environmental start-ups, and social entrepreneurs. Provide capacity-building initiatives like grant writing and management trainings with a focus on equity and inclusion to increase the diversity of grant applicants and increase the District's reach with traditionally under-represented community groups. Phase III WIP Page 120.</p>	DOEE	<p><b>Complete and Ongoing:</b> The grant award to the Chesapeake Bay Trust to evaluate, refine, and administer the Community Stormwater Solution Grant Program was amended to add \$592,577 to support additional sub-awards. The total grant award is currently \$992,577.</p> <p>In 2020 and 2021, the Trust issued Request for Applications. In 2020, the Trust received 40 applications totaling \$1.1 million and awarded 16 grants totaling \$295,000. In 2021, the Trust received 39 applications totaling \$897,896 and awarded 12 grants totaling \$342,339. The 2021 project areas include environmental justice, environmental education, green infrastructure, green jobs, habitat restoration, litter and pollution reduction, and out-of-school programming.</p> <p>To promote equity during the application process, the Trust worked with applicants to improve their grant writing skills and partnered with two organizations based in Wards 7 and 8 to strengthen outreach to community-based organizations.</p>
31-Dec-21	<p><b>Milestone:</b> Create Story Maps of current projects and programs.</p> <p><b>Description:</b> Develop GIS Story Maps to showcase progress under the MS4 program, State Revolving Fund, and water quality monitoring. Phase III WIP Page 85.</p>	DOEE	<p><b>Complete:</b> DOEE has again developed a Story Map for the 2021 MS4 Report found on DOEE's website here: <a href="https://doee.dc.gov/publication/ms4-discharge-monitoring-and-annual-reports">https://doee.dc.gov/publication/ms4-discharge-monitoring-and-annual-reports</a>.</p>

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31-Dec-21	<p><b>Milestone:</b> Implement strategies to engage residents in underrepresented communities and encourage participation in the RiverSmart Homes program.</p> <p><b>Description:</b> After receiving recommendations from a marketing contractor and a grantee on strategies for broadening RiverSmart's reach, DOEE will work to ensure that the RiverSmart Homes program is implemented equitably. Specifically, targeted engagement and outreach strategies will be utilized to reach more residents in Wards 7 and 8. Phase III WIP Page 113.</p>	DOEE	<p><b>Complete:</b> The report from the marketing contractor is being reviewed for alignment and adjustments based on new protocol and operations given the constraints of the COVID-19 public health emergency.</p> <p>Due to COVID-19, the scheduled Spring 2020 walking tours of RiverSmart Homes in Wards 7 and 8 were postponed. The RiverSmart Team conducted a walking tour on September 18, 2021 in Ward 7 with 25 attendees. The Ward 8 tour is planned for 2022.</p> <p>The RiverSmart Homes team implemented several strategies to prioritize audits and installations in Wards 7 and 8. In addition, the RiverSmart Homes landscaping RFA added funds and requirements to implement a RiverSmart Ambassador program in Wards 7 and 8 to increase participation in our underserved neighborhoods, including funding to compensate ambassadors and provide free or reduced maintenance costs for existing GSI installations.</p>

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31-Dec-21	<p><b>Milestone:</b> Develop comprehensive outreach campaign to increase support for green infrastructure.</p> <p><b>Description:</b> Develop targeted outreach materials for voluntary stormwater retrofit, wildlife restoration, pollution prevention, outreach, and education programs. The campaign goal is to increase awareness of co-benefits and participation in DOEE programs. Additionally, DOEE will work with sister agencies to draft common signage for stormwater retrofit projects to further engage and educate residents and maintenance personnel. DOEE will utilize the WIP Action Team Co-Benefit Fact Sheets to inform potential outreach materials for this work. Phase III WIP Page 94.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE worked with a contractor to develop the base of an outreach campaign for DOEE's stormwater, wildlife, pollution prevention and environmental education campaigns. The contractor's work provided DOEE with target audiences and best approaches for reaching these audiences. DOEE is evaluating options for developing corresponding outreach materials. Furthermore, DOEE has undertaken a comprehensive review and update of its website. The site is being reorganized to make it more intuitive to the public and out of date material is being updated or removed. To date Watershed Protection, Water Quality, and Regulatory Review Divisions have provided updates.</p> <p>DOEE has also incorporated funding from the American Rescue Plan Act to support signage on District-owned green infrastructure practices. Once installed, these signs will support the maintenance of these facilities and allow for the public to learn about the function of the practices. Residents will then be able to submit maintenance request through a QR code on the signs. Implementation of this plan will launch in the 2022-2023 Milestone period.</p>

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31-Mar-21	<p><b>Milestone:</b> Enhance Watershed Stewards Academy to enhance diversity, equity, and inclusion.</p> <p><b>Description:</b> Incorporate equitable outreach and engagement plans that build relationships and recruit District residents from historically under-represented communities in Wards 7 and 8 as potential Stewards. The program will also work to provide alumni engagement and networking opportunities to current stewards to increase their networks. Phase III WIP Page 63.</p>	DOEE	<p><b>Complete:</b> In 2021 and looking forward to 2022, program grantee Anacostia Watershed Society (AWS) created a hybrid program model to administer Stewards content within COVID-19 standards. The model was well received by individuals and allowed more flexibility for participants and reduced barriers of transport.</p> <p>During the reporting period DOEE assisted AWS in creating and implementing equitable engagement strategies to better recruit Stewards from Ward 7 and 8. Strategies included attending and providing outreach materials about the program at specific affinity group gatherings such as the Taking Nature Black conference organized by Audubon Naturalist Society.</p> <p>The program also strengthened alumni engagement strategies during the reporting period. Alumni now receive a monthly email newsletter with updates about funding opportunities, continuing education sessions, relevant webinars, and volunteer opportunities locally and throughout the region.</p>



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31-Dec-21	<p><b>Milestone:</b> Convene 4 semiannual watershed partner meetings.</p> <p><b>Description:</b> Convene semiannual meetings with watershed stakeholders to discuss programs and opportunities available to help support the District's clean water goals as a continuation of the Chesapeake Partner Advisory Group. Phase III WIP Page 63.</p>	DOEE	<p><b>Complete and Ongoing:</b> In 2020, DOEE convened the Watershed Partners Meeting on February 19, 2020 in person and on September 14, 2020 virtually. In 2021 DOEE convened the meetings virtually on March 18, 2021 and October 14, 2021. The March meeting incorporated components of the Chesapeake Bay Program Diversity, Equity, Inclusion, and Justice (DEIJ) Implementation Plan. Meeting participants were broken into focus groups and provided initial feedback on the framework of the Plan. The feedback was incorporated into the final version of the Plan approved by the PSC in December 2021. The October meeting provided a discussion on the District's efforts to map the equitable distribution of green infrastructure practices and highlighted DOEE's upcoming Green Infrastructure work. The meetings have been operationalized into DOEE's work and will be continued in 2022 and 2023.</p>

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31-Dec-21	<p><b>Milestone:</b> Convene annual restoration contractor vendor forum.</p> <p><b>Description:</b> Bring together landscape and restoration contractors and vendors involved in Environmental Assessments (EA), design and/or construction of Low Impact Development (LID), and/or Stream Restoration practices. The forum will act as an information exchange on best practices for contracting for environmental restoration projects in the District. Phase III WIP Page 63.</p>	DOEE	<p><b>Not Complete:</b> While DOEE was able to host a virtual vendor forum in 2020 the event was not hosted in 2021 during to staffing turnover and capacity and lingering impacts from the COVID-19 pandemic. DOEE plans to relaunch the forum in 2022 and continue to host it annually.</p>
31-Dec-21	<p><b>Milestone:</b> Facilitate outreach to the development community for compliance assistance programs that improve water quality outcomes.</p> <p><b>Description:</b> Conduct outreach to the building industry to encourage participation in off-site stormwater regulation compliance opportunities through the SRC Program and to increase awareness of the Self-Inspection Self-Reporting (SISR) program. Phase III WIP Page 137 &amp; FY19 WIP Assistance Funding.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE awarded \$85,000 to the Urban Land Institute (ULI) in July 2021 to develop an outreach and engagement strategy to increase building industry participation in the SRC and SISR programs. ULI has assembled a working group of industry and program stakeholders and is currently conducting research (survey and focus groups) to assess industry awareness and perception of the program. The project will be completed in 2022.</p>

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
Tracking, Reporting, and Monitoring			
31-Dec-21	<p><b>Milestone:</b> Make progress to develop an interface between Stormwater Database and District Department of Transportation (DDOT) Tree Database.</p> <p><b>Description:</b> Begin developing a database interfaces that will allow DOEE to pull relevant information on tree planting on DDOT-owned land into the Stormwater Database to assist in program implementation and reporting. Phase III WIP Page 133.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE's technical services contractor Karder has developed an initial version of a tool that will support integration between the Surface and Groundwater System (formerly Stormwater Database) and other databases, including the publicly available DDOT tree database. In 2022, Karder will continue to refine this tool and develop initial tools to further support integration. DOEE will also propose standardized naming conventions and characteristics for all tree species to better facilitate data sharing between DOEE and DDOT.</p>
31-Dec-21	<p><b>Milestone:</b> Implement Stormwater Database Verification Program.</p> <p><b>Description:</b> Continue to utilize and refine the Stormwater Database to track and target verification of projects around the District. Phase III WIP Page 133.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE continues to use the Surface and Groundwater System (formerly Stormwater Database) to track and verify BMPs across the District and to prioritize maintenance inspections.</p>
31-Dec-21	<p><b>Milestone:</b> Implement District's BMP verification program.</p> <p><b>Description:</b> Implement District's BMP verification program, including the recently updated Quality Assurance Program Plans (QAPPs) to reflect current verification practices. Changes to verification program include new procedure for submitting wastewater data from permitted facility to EPA NPDES databases to CBP Point Source App. Phase III WIP Page 134.</p>	DOEE/ DC Water/ EPA	<p><b>Complete and Ongoing:</b> DOEE continues to follow the updated Quality Assurance Program Plans (QAPP) to reflect current verification practices for BMPs. DOEE also works directly with DC Water to support the submission of wastewater data to the CBP Point Source app for the 2021 Progress Submission.</p>

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
31-Dec-21	<p>Milestone: Utilize monitoring data.</p> <p><b>Description:</b> DOEE will consider USGS stations, citizen science, and other local monitoring data when evaluating sources of pollution and priorities for BMP implementation. Phase III WIP Page 129.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE continues to review and consider USGS monitoring data provided for District waterways and continues active membership in the Integrated Monitoring Networks Workgroup. DOEE also utilizes the monitoring data undertaken by our Monitoring and Assessment Branch and other programs like our Citizen Science Bacteria Monitoring Program in support of implementation efforts.</p>
Federal Facilities			
31-Dec-21	<p><b>Milestone:</b> Engage major landholding agencies within the District to continue progress towards Phase III WIP strategies and targets.</p> <p><b>Description:</b> Work with federal facilities to make progress towards programmatic and numeric pollution reduction goals included in the District's Phase III WIP. Phase III WIP Page 60.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE continues to work with federal agencies to make progress towards Phase III WIP Goals. In 2021 DOEE worked with and met directly with the Department of Defense, National Park Service, and Agriculture Research Service in support of the 2021 progress submissions and WIP Goals. DOEE continues to co-chair the Federal Facility Workgroup and continues to request support from EPA in urging federal facilities to continue to support Phase III WIP goals.</p>

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
31-Dec-21	<p><b>Milestone:</b> Work with federal agencies to acquire and report BMP implementation information.</p> <p><b>Description:</b> Incorporate federal data into District's annual implementation progress data submissions as outlined in federal agency stormwater management MOU. Phase III WIP Page 135.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE provided templates for federal agencies to submit implementation data in June 2021. DOEE received BMP information from Department of Defense and the National Park Service. Other federal agency BMP data is pulled from the District's Surface and Groundwater System (formerly the Stormwater Database) for the annual submission. DOEE continues to coordinate with federal agencies through the Federal Facility Workgroup and with support from EPA's Federal Progress Evaluation contract to determine discrepancies in internal agency BMP data and the data reported to DOEE during the annual data call.</p>

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
31-Dec-21	<p><b>Milestone:</b> Work with federal agencies and EPA contractors to reconcile Stormwater Database practices with Federal BMP records.</p> <p><b>Description:</b> As part of the EPA and DoD BMP Progress submission contract, DOEE will work with federal agencies, contractors, and the Federal Facility Workgroup to ensure that regulated and voluntary BMPs on Federal Land in the District are correctly submitted and credited as part of the annual Progress Submission process. Phase III WIP Page 135.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE continues to work with federal agencies to reconcile Surface and Groundwater System (SGS) practices with Federal BMP records. In 2021 DOEE developed a crosswalk tool to help support evaluations of BMP discrepancies in the SGS. DOEE developed this tool for the Department of Defense (DoD) and walked through some of the differences during several meetings. DOEE expects that this tool and conversations helped to support DoD's 2021 Progress Submission to DOEE. DOEE made the tool available to all federal agencies and will continue to offer its support in understanding BMP discrepancies with Federal Agencies moving forward. DOEE also expects to receive BMP audits from DoD and the National Park Service in 2022 to evaluate where discrepancies still may exist. DOEE continues to request that EPA encourage all federal agencies to provide BMP data and to internally audit their BMP records to ensure submissions are accurate and complete.</p>
31-Dec-21	<p><b>Milestone:</b> Work with federal agencies and the Chesapeake Bay Program to rectify land use errors in the Federal Facility GIS Data Layer.</p> <p><b>Description:</b> Connect with federal facilities and CBP in regards to errors in the Federal Facility GIS Land Use Data Layer. Work via the Federal Facility Workgroup to document errors for updates within CBP data sets. Phase III WIP Page 53 and EPA Phase III WIP Evaluations.</p>	DOEE	<p><b>Complete and Ongoing:</b> Through the Federal Facility Workgroup (FFWG), DOEE has worked to include a GIS Data Layer review as part of the group's workplan. The FFWG leadership has discussed how this process can occur. DOEE also continues to engage Federal Agencies with land in the District to ensure accurate mapping data coordinated with model submissions.</p>

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
WASTEWATER			
31-Dec-21	<p><b>Milestone:</b> Continue progress on Northeast Boundary Tunnel Construction.</p> <p><b>Description:</b> Continue construction of the Northeast Boundary Tunnel with an anticipated place in operation date in 2023, ahead of the March 23, 2025 Consent Decree deadline. Phase III WIP Page 42.</p>	DC Water	<p><b>Complete and Ongoing:</b> Northeast Boundary Tunnel construction continued in calendar year 2021 and was not significantly adversely impacted due to the COVID-19 public health emergency.</p> <p>Mining of the tunnel was completed in 2021. Work continues on the shaft sites to divert flow into the tunnel for the planned placed-in operation date in 2023.</p>
31-Dec-21	<p><b>Milestone:</b> Complete post-construction monitoring and submit practicability determination to EPA for first Green Infrastructure (GI) projects.</p> <p><b>Description:</b> Complete post-construction monitoring and submit practicability determination to EPA for first Green Infrastructure (GI) projects in Potomac and Rock Creek in accordance with Consent Decree deadlines. Phase III WIP Page 41.</p>	DC Water	<p><b>Complete:</b> Post construction monitoring was completed for both projects. The Green Infrastructure Practicability Assessments for Rock Creek and the Potomac were submitted to EPA on June 12, 2020 and August 13, 2020, respectively.</p> <p>EPA approved the Rock Creek &amp; Potomac Practicability Assessments on Nov 23, 2020 and Feb 8, 2021, respectively. In Rock Creek, a hybrid green/gray approach was approved. In the Potomac, Green Infrastructure was determined to be impractical and the Potomac Tunnel will be extended to control CSO 027, 028 and 029 on the Potomac River.</p>

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
31-Dec-21	<p><b>Milestone:</b> Advance planning and design of Potomac River Tunnel.</p> <p><b>Description:</b> Award a contract for design of Potomac River Tunnel by July 1, 2021 per Consent Decree requirements. Phase III WIP Page 41.</p>	DC Water	<p><b>Complete:</b> A contract for design of Potomac River Tunnel was awarded on October 19, 2019.</p> <p>DC Water completed development of 60% and 90% Request for Proposal (RFP) documents for the Potomac Tunnel.</p>
30-Dec-21	<p><b>Milestone:</b> Report Blue Plains wastewater and combined sewer system data to the Chesapeake Bay Program (CBP) for required annual reporting.</p> <p><b>Description:</b> For progress reporting purposes, update process for reporting fully QA/QC'd wastewater data from DC Water's Blue Plains Advanced Wastewater Treatment Plant to EPA NPDES databases and to CBP Point Source online application. Phase III WIP Page 130.</p>	DC Water / DOEE	<p><b>Complete and Ongoing:</b> DOEE and DC Water submitted QA/QC'd wastewater data to CBP's Point Source online application for the 2021 Progress Submission before the 2021 deadline.</p>
31-Dec-21	<p><b>Milestone:</b> Update flow projections for the Blue Plains Wastewater Treatment Plant Service Area.</p> <p><b>Description:</b> Update the Regional Wastewater Flow Forecast Model of the Blue Plains Service Area through 2050 with data from Version 9.2 of the Cooperative Forecasting Analysis. This effort is led by the Metropolitan Washington Council of Governments (MWCOG) with DC Water, the District of Columbia, and the other jurisdictions within the Blue Plains Service Area. Phase III WIP Page 57.</p>	MWCOG / DC Water / Office of the City Administrat or	<p><b>Complete and Ongoing:</b> Formal flow projections will be provided when MWCOG's Round 9.2 demographic projections are approved by the MWCOG Board, which is expected to occur in mid-2022.</p>



## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
CLIMATE CHANGE/RESILIENCE			
31-Dec-21	<p><b>Milestone:</b> Evaluate floodplain regulations.</p> <p><b>Description:</b> Explore revision of floodplain regulations to increase the District's resiliency and better prepare the District for climate changes and begin rulemaking process. Phase III WIP Page 140.</p>	DOEE	<p><b>Complete:</b> In 2020, DOEE began the process of drafting updates to the Flood Hazard Rules, which regulate floodplain development in conjunction with the Construction Codes. DOEE obtained two research reports from a consulting firm to assess the benefits, costs, and social equity aspects of the proposed updated Rules in fall 2020 and spring 2021, respectively. In the spring of 2021 DOEE held four Technical Workshops to gather further input from technical professionals. In the summer of 2021, DOEE also held two residential public input webinars and one commercial/institutional public input webinar to share proposed regulations with the public and gather informal feedback. DOEE aims to begin the formal rulemaking process in early 2022. Additionally, in May 2020 the District completed the rulemaking process for a construction code update that added Appendix G (Flood-Resistant Construction) to the District's Construction Codes in accordance with FEMA recommendations. The updated codes also increased the Design Flood Elevation from the Base Flood Elevation plus 1.5 feet of freeboard to either the 500-year flood elevation or the Base Flood Elevation plus 2 feet of freeboard, whichever is higher. This increases the District's resiliency and better prepares the District for climate change.</p>

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
31-Dec-21	<p><b>Milestone:</b> Evaluate District's stormwater performance standards.</p> <p><b>Description:</b> Assess stormwater performance standards established by District's stormwater regulations based in part on future precipitation forecasts. Phase III WIP Page 140.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE has reviewed its performance standards in the context of the future projected storms resulting from climate change and has identified the current 2-year and 15-year peak discharge requirements as needing further evaluation. Generally, the District's storm sewer conveyance system is designed to manage the runoff from a 15-year storm, meaning larger storms would typically result in flooding. By 2080, the current 100-year storm is projected to be the 15-year storm, meaning that street flooding will likely occur on a more frequent basis. Additionally, the 2-year peak discharge requirement is designed to protect nontidal waterbodies from erosion, which tend to be more sensitive than the Anacostia and Potomac Rivers. A regulatory change to the 2-year and 15-year peak discharge requirements can better prepare the District for these larger storms and help reduce the flooding and stream degradation that might otherwise occur. In order to determine the appropriate change to propose, it is important to understand what the intensity and duration of future storms will be. To support this, DOEE is currently participating in a Chesapeake Bay Program Workgroup that is working on new Intensity Duration Frequency (IDF) curves for the Chesapeake Bay region.</p>

## District of Columbia 2020–2021 Programmatic Water Quality Milestones: Final Update

Target Date	Milestone & Description	Agency	Update
31-Dec-21	<p><b>Milestone:</b> Develop Climate Resilient Design Guidelines.</p> <p><b>Description:</b> Develop climate resilient design guidelines outlining how to incorporate future climate projections that include more frequent precipitation and flooding events into building and site-level design. Phase III WIP Page 142.</p>	DOEE	<p><b>Complete and Ongoing:</b> Using recommendations from the Chesapeake Bay Urban Stormwater Workgroup as well as DOEE's internal evaluation, DOEE is reviewing stormwater BMP design guidelines to address projected storm size increases. DOEE intends to incorporate these design changes in the next edition of the Stormwater Management Guidebook. The revision process will continue into 2022. Furthermore, DOEE has published resilient design guidelines to help public and private sector projects incorporate future climate projections into their designs.</p>
31-Dec-21	<p><b>Milestone:</b> Develop comprehensive heat strategy.</p> <p><b>Description:</b> Develop a strategy outlining opportunities to reduce the urban heat island and protect residents from the impacts of extreme heat. Identify communities most at risk from heat using both exposure and sensitivity indicators to determine how efforts like green infrastructure projects and increased tree canopy cover can improve community conditions. Phase III WIP Page 142.</p>	DOEE	<p><b>Complete and Ongoing:</b> DOEE has finished mapping to assess which parts of the District are most exposed and sensitive to heat. DOEE has also completed a community survey assessing heat needs and detailed focus groups among populations disproportionately impacted by heat. Next steps will involve drafting policy recommendations, a final round of community engagement and the release of the strategy.</p>