

**Attachment A to Stipulation of Non-Material Modification to Consent Decree**

**FIRST AMENDED APPENDIX F**

**GREEN INFRASTRUCTURE PROGRAM FOR THE POTOMAC AND ROCK CREEK SEWERSHEDS**

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**I. Green Infrastructure Program Plan**

Within 12 months after the Effective Date of the First Amendment to the Consent Decree, DC Water shall submit to EPA for approval pursuant to Section X (EPA Approval of Plans and Submissions) of this Consent Decree a Green Infrastructure Program Plan (the “GI Program Plan”). The GI Program Plan shall include the elements described in subsections A, B, and C below. DC Water submitted and EPA approved the Program Plan on July 29, 2016 and February 3, 2017, respectively.

**A. Green Infrastructure Control Measures.**

1. Identification and description of the GI control measures (including any targeted sewer separation projects) that DC Water intends to install (or have the District or other entities install on its behalf), the approximate locations of the sites for the measures, and the estimated cost to implement the measures.
2. The conceptual project location identifications and descriptions, and cost estimates for the measures that DC Water intends to install (or have the District or other entities install on its behalf), which shall correspond to the individual GI Projects set forth in the schedule in Section II of this Appendix F.
3. An estimate of the number of acres of land projected to be effectively retrofitted with GI in the Potomac and Rock Creek sewersheds prior to 2030 pursuant to the District’s MS4 permit and storm water regulations.

**B. Preservation and Maintenance of Constructed Green Infrastructure Projects.** A plan to (1) preserve and maintain the GI control measures installed pursuant to the GI Program Plan and (2) ensure that future site or land use changes do not result in the loss of the runoff reduction benefits of the GI control measures installed pursuant to the GI Program Plan, unless that loss is compensated for by other controls in the same CSO drainage area.

**C. Public Outreach.** A plan to engage property owners in the Potomac and Rock Creek sewersheds and interested stakeholders to promote and facilitate installation of GI on private property and to ensure public input into the site

selection process and concept design for the control measures that DC Water proposes to install as part of the GI Program Plan.

(a) Public Outreach shall include:

1. During GI Project Planning:

- (i) Develop a draft Project Description report, place it on DC Water's website and solicit comments for 30 calendar days;
- (ii) Advertise and hold at least one public meeting (virtual or in person) regarding the project described in the Project Description;
- (iii) Consider public comments received during comment period and at public meeting and revise the Project Description report as appropriate prior to submittal to EPA; and
- (iv) Post the final Project Description as submitted to EPA on DC Water's website;

2. During GI Project Design:

- (i) Meet with Advisory Neighborhood Commission ("ANC") in the area to present the proposed project, obtain comments on the facility locations, configuration and construction limitations and incorporate comments as appropriate;
- (ii) Use multiple media which may include door hangers, emails, in person visits or other means to advise adjacent property owners of planned projects;
- (iii) Maintain a website with information on the project, frequently asked questions and provide contact information for citizens to reach project staff with comments or questions; and
- (iv) Maintain a contact list of interested parties to distribute project information and notices about the project.

3. During GI Project Construction:

- (i) Meet with ANC in the area to prior to construction to provide an update on anticipated construction plans and timeframes;

- (ii) Maintain a hotline for construction questions and issues;
  - (iii) Use multiple media which may include door hangers, emails, in person visits or other means to advise adjacent property owners of planned construction;
  - (iv) Maintain a website with information on the project, frequently asked questions and provide contact information for citizens to reach project staff with comments or questions; and
  - (v) Respond to neighborhood questions and requests during construction as appropriate.
4. After Project Construction:
- (i) Post the Post Construction Report on DC Water's website; and
  - (ii) Solicit feedback on the implemented project from nearby property owners and incorporate feedback into subsequent designs as appropriate.

## **II. DC Water Implementation Schedule**

DC Water shall construct and Place in Operation the GI control measures assigned to it in accordance with the following schedule:

- A.** Six months prior to the award contract for construction for each of the projects listed in this section, DC Water shall submit a Project Description to EPA for review and comment. The Project Description shall contain:
- 1. An identification of the CSO areas where the projects are to be implemented
  - 2. The types of GI control that are to be employed and the rationale for their use
  - 3. The approximate location of the controls
  - 4. The estimated acreage that will be controlled to a 1.2" retention standard
  - 5. A schedule for implementation of the controls
  - 6. The estimated cost for each type of control to be employed

7. The total cost for the Project
8. Post Construction Monitoring and Modeling Program for this project to demonstrate the capture efficiency of the controls to be implemented

**B.** Six months following the completion of a project's post construction monitoring program, DC Water shall submit a Post Construction report for EPA review and comment. The Post Construction Report shall contain:

1. A comparison of planned projects under the Project Description and actual implemented projects:
  - (a) Costs
  - (b) Acreage treated to 1.2" retention standard
  - (c) Estimate of run-off control.
2. Identification of barriers to implementation of projects and steps taken by DC Water and the District to address any identified barriers for this and future projects
3. Post Construction Monitoring and Modeling Program results assessing the efficiency of the controls implemented
4. Changes proposed for future projects

**C. Potomac Sewershed Projects: In accordance with the following schedule, construct GI, including targeted sewer separation, in the CSO 027, 028 and 029 sewersheds designed to:**

1. Project No. 1: Control 44 acres to the 1.2" Retention Standard
  - (a) Award Contract for Construction: June 23, 2017
  - (b) Place in Operation: June 23, 2019
2. Project No. 2: Control 46 acres to the 1.2" Retention Standard
  - (a) Award Contract for Construction: June 23, 2022
  - (b) Place in Operation: June 23, 2024
3. Project No. 3: Control 43 acres to the 1.2" Retention Standard
  - (a) Award Contract for Construction: June 23, 2025
  - (b) Place in Operation: June 23, 2027

4. Controlled acres placed in operation in excess of those specified for a given project in this paragraph II.C may be credited against the acres required to be controlled on subsequent projects.
5. No later than 15 months following the Place in Operation date for Project No. 1 above, DC Water shall submit to EPA and the District Post Construction Monitoring Report No. 1 for the Potomac Sewershed Projects (Potomac Report No. 1). In addition to the information required in Subsection II.B above, the report shall contain DC Water's determination of the practicability of controlling at least 133 acres to the 1.2" Retention Standard in the CSO 027, 028 and 029 sewersheds by the Place in Operation deadline for Project No. 3 above based on its experience with implementing Project No. 1. Such determination shall consider the constructability, operability, efficacy, public acceptability and cost per impervious acre treated of the controls.
6. EPA shall either approve or disapprove of the determination required by Paragraph 5 above. If EPA fails to either approve or disapprove the determination within 180-days following receipt of Potomac Report No. 1, any subsequent deadline that is dependent upon such approval or disapproval shall be extended by the number of calendar days beyond the 180-day period that EPA uses to approve or disapprove the determination. The process for approving or disapproving the determination shall be governed by Paragraph 39 of the Consent Decree.
7. In the event DC Water determines that it is not practicable to control at least 133 acres to the 1.2" Retention Standard in the CSO 027, 028 and 029 sewersheds by the Place in Operation deadline for Project No. 3 above and such determination is approved by EPA, DC Water shall:
  - (a) Plan, design, and construct the Potomac River Storage/Conveyance Tunnel with a total storage volume of not less than 40 million gallons, at any time up to, but no later than the following schedule
    - (i) Award Contract for Detailed Design: Three (3) months after EPA approval
    - (ii) Award Contract for Construction: Two (2) years and six (6) months after EPA approval
    - (iii) Place in Operation: Nine (9) years after EPA approval
  - (b) Be relieved of its obligation to implement Project Nos. 2 and 3 above; and
  - (c) Operate and maintain the GI constructed in Project No. 1 in accordance with its NPDES Permit.

**D. Rock Creek Sewershed Projects: In accordance with the following schedule, construct GI, including targeted sewer separation, in the CSO 049 (Piney Branch) sewershed designed to:**

1. Project No. 1: Control 20 acres to the 1.2” Retention Standard
  - (a) Award Contract for Construction: March 30, 2017
  - (b) Place in Operation: March 30, 2019
2. Project No. 2: Control 75 acres to the 1.2” Retention Standard
  - (a) Award Contract for Construction: January 23, 2022
  - (b) Place in Operation: January 23, 2024
3. Project No. 3: Control 90 acres to the 1.2” Retention Standard
  - (a) Award Contract for Construction: March 23, 2025
  - (b) Place in Operation: March 23, 2027
4. Project No. 4: Control 90 acres to the 1.2” Retention Standard
  - (a) Award Contract for Construction: September 30, 2027
  - (b) Place in Operation: September 30, 2029
5. Project No. 5: Control 90 acres to the 1.2” Retention Standard
  - (a) Award Contract for Construction: March 23, 2028
  - (b) Place in Operation: March 23, 2030
6. Controlled acres placed in operation in excess of those specified for a given project in this paragraph II.D. may be credited against the acres required to be controlled on subsequent projects.
7. No later than 15 months following the Place in Operation date for Project No. 1 above, DC Water shall submit to EPA and the District Post Construction Monitoring Report No. 1 for the Rock Creek Sewershed Projects (Rock Creek Report No. 1). In addition to the information required in Subsection II.B above, the report shall contain DC Water’s determination of the practicability of controlling at least 365 acres to the 1.2” Retention Standard in the CSO 049 sewershed by the Place in Operation deadline for Project No. 5 above based on its experience with implementing Project No. 1. Such determination shall consider the

constructability, operability, efficacy, public acceptability and cost per impervious acre treated of the controls.

8. EPA shall either approve or disapprove of the determination required by Paragraph 7 above. If EPA fails to either approve or disapprove the determination within 180-days following receipt of Rock Creek Report No. 1, any subsequent deadline that is dependent upon such approval or disapproval shall be extended by the number of calendar days beyond the 180-day period that EPA uses to approve or disapprove the determination. The process for approving or disapproving the determination shall be governed by Paragraph 39 of the Consent Decree.
9. DC Water has determined that it is not practicable to control at least 365 acres to the 1.2” Retention Standard in the CSO 049 sewershed by March 23, 2030 using solely green infrastructure projects, and such determination has been approved by EPA. DC Water has determined that a hybrid approach of green and gray infrastructure projects will achieve control equivalent to managing at least 365 acres to the 1.2” Retention Standard in the CSO 049 watershed by March 23, 2030, and such determination has been approved by EPA. DC Water shall achieve a minimum of 9.5 million gallons of control in the CSO 049 sewershed by March 23, 2030 as follows:
  - (a) DC Water shall construct a Rock Creek Storage Facility (the “Facility”), which shall store combined sewer flow from the Piney Branch Outfall, CSO 049, in accordance with DC Water’s NPDES Permit. The storage capacity of the Facility will be at least four million two hundred thousand gallons (4.2 million gallons). After the Facility is Placed in Operation, in the event of wet weather causing the facility to be used for storage, DC Water shall dewater the Facility to the CSS as soon as practicable, but in no event longer than 59 hours, and shall convey the contents of the Facility to Blue Plains for treatment in accordance with DC Water’s NPDES permit. The location of the Facility will be finalized during Facility Planning and design, but it will be between CSO 049 and Rock Creek and its approximate location is depicted in Page ES-9 of Appendix A to this Decree.
  - (b) DC Water shall plan, design, construct and Place in Operation the Facility at any time up to, but no later than the following schedule:
    - (i) Award Contract for Detailed Design: Three (3) years six (6) months after EPA approval
    - (ii) Award Contract for Construction: Five (5) years six (6) months after EPA approval

- (iii) Place in Operation: Nine (9) years after EPA Approval
- (c) The Rock Creek Storage Facility shall be subject to the terms and requirements of Section VIII. (Control System Compliance and Post-Construction Monitoring) of this Decree.
- (d) DC Water shall place in operation GI which may include targeted sewer separation and downspout disconnection in the CSO 049 in accordance with the following schedule:
  - (i) DC Water certifies that it has placed in operation Rock Creek Project 1 controlling at least 20 acres to the 1.2” retention standard (652,000 gallons)
  - (ii) Project B: Control 22 acres to the 1.2” Retention Standard (717,000 gallons)
    - a. Award Contract for Construction: January 23, 2022
    - b. Place in Operation: January 23, 2024
  - (iii) Project C: Control 25 acres to the 1.2” Retention Standard (815,500 gallons)
    - a. Award Contract for Construction: March 23, 2025
    - b. Place in Operation: December 31, 2027
  - (iv) Project D: Control 25 acres to the 1.2” Retention Standard (815,500 gallons)
    - a. Award Contract for Construction: March 23, 2028
    - b. Place in Operation: March 23, 2030
- (e) As provided in Section II.E of Appendix F, DC Water has demonstrated that it is entitled to take credit for at least 2.3 million gallons (70.5 acres controlled to the 1.2” Retention Standard) from the implementation of the District’s MS4 Permit and Stormwater Regulations in the CSO 049 sewershed as of March 31, 2020.
- (f) DC Water is relieved of its obligation to implement Project Nos. 2, 3, 4, and 5 from this Section II.D.; and
- (g) DC Water shall operate and maintain the GI constructed in Project No. 1 in accordance with its NPDES Permit.



**E. Credit for Other Controlled Acres.** Controlled acres from the implementation of the District's MS4 Permit and Stormwater Regulations will be credited against DC Water's obligations to control acres in paragraphs II.C. and II.D. if:

1. They are located in the CSO areas targeted for GI implementation by DC Water; and
2. The design of the control measures and their level of control has been verified by DC Water to achieve the 1.2" retention standard or any portion thereof. Where green infrastructure installations by any party do not meet the full 1.2" design criterion and are counted towards meeting the requirements of this consent decree, DC Water may proportionally credit the control achieved; and
3. DC Water, the District or a private party has assumed operation and maintenance responsibilities in a legally binding document or as part of its statutory or regulatory authority.

**F. DC Water Commitments to Coordinate with the District.** The commitments of DC Water in coordinating with the District are:

1. DC Water shall consult with the District's Program Coordinator and relevant District agencies in selecting planned GI projects proposed for District property or rights of way to ensure coordination with District infrastructure policies and priorities;
2. DC Water shall submit draft GI construction staging packages identifying facilities to be constructed, including preliminary engineering plans and specifications, staging areas, estimated construction durations, work hours and traffic management plans for review by the District and shall do so sufficiently in advance of construction of the various GI contract divisions in order to allow adequate time for the District to review the packages, for the District and DC Water to resolve any issues, and for the District to issue the permits before the expected start date of construction;
3. DC Water shall prepare 30%, 60%, 90% and 100% documents each for RFP and design for District review and comment prepared in accordance with terms agreed to by the District and DC Water;
4. DC Water shall submit a maintenance and monitoring plan, including the funding methodology, for each GI Project to the District agencies having jurisdiction.
5. DC Water shall submit applications for public space, construction, and any other necessary permits for each project or facility;

6. DC Water shall submit the documents required by this section sufficiently in advance of construction in order to allow adequate time for the District to review the document, for the District and DC Water to resolve any issues, and for the District to issue the permits or other legal authority before the expected start date of construction of the project.
7. DC Water shall work with the District to coordinate and align capital projects and expenditures, where feasible and practical, to allow implementation of the GI projects in a manner that enables the efficient use of resources and minimizes costs to the taxpayers and rate-payers.
8. DC Water shall assure that GI credited towards meeting DC Water's obligations to control acres in paragraphs II.C. and II.D is inspected no less than once every three years and that any deficiencies are corrected.

### **III. District of Columbia Government Commitments**

#### **A. The commitments of the District in support of the GI Projects are:**

1. The District agrees to provide the public space necessary for DC Water to construct GI to control 92 acres to the 1.2" Retention Standard in the CSO 049 sewershed. The District and DC Water will establish procedures for identifying GI locations, technologies, and issuance of permits for construction, operation and maintenance and other matters.
2. The District will appoint an executive-level District official as the District's Program Coordinator within 6 months of Effective Date of the First Amendment to the Consent Decree. The Coordinator will be charged with coordinating and expediting the work of the relevant District offices, departments and agencies;
3. After submission by DC Water of each construction staging package, the District shall review the proposed construction staging areas, construction durations, maintenance of traffic, parking mitigation, work hours and facilities to be constructed, and work with DC Water to resolve any concerns and issue approval letters identifying the conditions that must be met in order to obtain permits for construction;
4. The District shall issue permits for construction within thirty (30) business days of submittal of a complete application package prepared in accordance with an approval letter;
5. After submission and review of the maintenance and monitoring plan for a GI Project submitted by DC Water, the District shall issue permits or other legal authority to DC Water in advance of the completion of construction of the GI Projects allowing access for the maintenance and monitoring of the project; unless, as part of the maintenance and monitoring plan

submitted by DC Water and approved by the District, the District or private party will be responsible for the maintenance and monitoring of the project.

6. The District shall revise its storm water policies regarding in-lieu fees to include the following:
  - (a) In-lieu fees paid by regulated projects in the 049 sewershed will be used to fund construction of GI in those sewershed; and
  - (b) In-lieu fees paid by regulated projects in combined sewersheds will not be used to fund projects in combined sewersheds controlled by the Gray CSO Controls required by this Consent Decree.
  
7. The District shall submit a report to EPA for review and comment no later than March 1, 2016 identifying impediments to implementation of the GI Projects and identifying proposed changes to the regulations, codes, standards, guidelines and policies by reviewing the following items at a minimum:
  - (a) Storm water regulations and policies; including a review of the practicability of incentivizing storm water retention credits (SRCs) to maximize water quality benefits;
  - (b) District Department of Transportation (“DDOT”) Design and Engineering Manual;
  - (c) Zoning regulations;
  - (d) Plumbing and Building Codes;
  - (e) DDOT Urban Forestry Guidelines;
  - (f) DDOT Green Infrastructure Standards; and
  - (g) DC Water Utility Protection Guidelines.
  
8. The District shall take the following actions with respect to the proposed amendments to the regulations, codes, standards and guidelines included in the reports described in paragraphs above:
  - (a) For statutory amendments, the District shall submit to the Council by no later than March 1, 2017, proposed legislation to enact the statutory amendments;
  - (b) For regulatory amendments that require Council approval, the District shall publish a notice of proposed rulemaking by March 1,

2017, and shall submit to the Council by no later than January 1, 2018, a proposed resolution to approve the final rules;

- (c) For regulatory amendments that require Zoning Commission approval, the District shall submit proposed zoning language to the Zoning Commission for its approval by no later than March 1, 2017;
- (d) For regulatory amendments that do not require Council or Zoning Commission approval, the District shall issue a notice of proposed rulemaking by March 1, 2017;
- (e) For statutory amendments and for regulatory amendments that require Council approval, the District shall take such actions as are necessary to obtain the Council's approval of the proposed legislation by March 1, 2018;
- (f) For regulatory amendments that require Zoning Commission approval, the District shall take such actions as are necessary to obtain the Zoning Commission's adoption of the regulatory amendments by March 1, 2018; and
- (g) For regulatory amendments that do not require Council or Zoning Commission approval, the District shall issue a notice of final rulemaking no later than March 1, 2018.

**B. Anti-Deficiency Act Events:** Nothing in this Decree shall be construed to require an expenditure, obligation or contract in violation of the Anti-Deficiency Act, 31 U.S.C. §§ 1341 et seq. Where an expenditure, obligation or contract is subject to the Anti-Deficiency Act, the District's obligations shall be subject to the availability of appropriated funds.

#### **IV. Additional Coordination between DC Water and District**

DC Water and the District will work together to coordinate and align capital projects and expenditures, where feasible and practical, to allow implementation of the GI Projects in a manner that enables the efficient use of resources and minimizes costs to the taxpayers and rate-payers. As part of this process, the District and DC Water will identify capital projects in the sewershed for CSO 049 that are projected to be completed during the subsequent three (3) years and that provide an opportunity to include more than \$200,000 of green infrastructure in excess of that required by District law. DC Water may request the District to incorporate in one or more of these projects GI in excess of that required by District law. The District agrees to grant such requests if DC Water agrees to fund the incremental design, construction, monitoring and maintenance costs of GI implemented by the District in excess of GI required by District law, the amount of such funding is agreed to by the District and DC Water, and the proposed GI is consistent with the District's current and potential future

program for the project. Such excess GI will be credited to the acres required to be controlled in Subsections II.C and II.D of this Appendix F.

**V. Reporting**

- A. Following EPA's approval of the GI Program Plan, DC Water shall report on the status of implementation of the GI Program Plan in each Quarterly Report required by Section XI (Reporting) of this Decree. With respect to the hybrid approach for the 049 sewershed, DC Water shall report on the status of implementation of the Rock Creek Storage Facility in accordance with the terms and requirements of Section XI (Reporting) of this Decree. The reports shall describe the status (i.e., in design, in procurement, under construction, or completed) of the control measure projects identified in the GI Program Plan and the Rock Creek Storage Facility. As part of the First Quarterly Report of each calendar year, DC Water shall include the following information for the prior calendar year:
1. Total acres of impervious area treated by GI installed and by sewer separation since the Effective Date of the First Amendment to the Consent Decree in the sewershed for CSO 049 (Piney Branch);
  2. Acres of impervious area treated by GI pursuant to the District's MS4 permit and Stormwater Regulations installed since the Effective Date of the First Amendment to the Consent Decree in the sewershed for CSO 049 (Piney Branch); and the numbers of such acres credited in accordance with Section II.C of this Appendix F;
  3. The activities the District and DC Water have taken to coordinate and align capital projects to minimize costs associated with implementation of the GI Projects by DC Water; and
  4. After completion of the Rock Creek Storage Facility, DC Water shall provide reports in the first applicable quarter and annual reports which includes the total acres of impervious area treated by GI and the storage volume of the Rock Creek Storage Facility in the sewershed for CSO 049 (Piney Branch).