



District of Columbia Wetland Program Plan 2021-2025

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Introduction

The District of Columbia's Department of Energy and Environment (DOEE) was awarded a United States Environmental Protection Agency (EPA) Regional Wetland Program Development Grant in October 2020. The scope of this two-year grant included the development strategic 3- to 5-year Wetland Program Plan (WPP or "the Plan"). The WPP provides DOEE with a framework and direction for the next five years to strengthen and improve the District's Wetland Program.

The District of Columbia's Wetland Program Plan, including projected timeline, is subject to the availability of staff and financial resources and coordination with other District and Federal agencies. This voluntary plan should be considered a working program plan that will be revisited and revised as needed.

DC Wetlands Status

A mapping effort associated with the 2020 Wetland Conservation Plan (WCP) update identified 291 individual wetlands located within DC boundaries, with a combined 289 acres. 76% of these wetlands are less than 0.5 acres in size, and 66% are less than 0.25 acres. 169 acres are tidal wetlands and 120 acres are non-tidal. 74% of District wetlands are located within National Park Service land.

Over 92% of the District's wetlands are located within 500 feet or less of urban development. These urban wetlands face constant challenges such as habitat loss from development, fragmentation, and altered hydrology as well as degraded water quality from stormwater runoff, scour from heavy rain events, and invasive plant colonization. Conservation of these important natural resources is vital to the ecology and health of the District's residents, watersheds, wildlife, and economy.

Regulatory Protections

Effective upon publication of notice in the D.C. Register on May 14, 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 \(DCMR\)](#).

The Department's adoption of the final rule comes after adoption of an emergency and proposed rule on October 7, 2020, and publication of a Notice of Emergency and Proposed Rulemaking in the D.C. Register on October 16, 2020 at 67 DCR 12127. The comment period closed on December 16, 2020, and the Department considered all the comments received. An identical, second emergency rulemaking was adopted on January 15, 2021, and published in the D.C. Register at 68 DCR 001905 (February 12, 2021), to avoid a lapse in regulatory protection for wetlands and streams. The second emergency rulemaking remained in effect until the publication of this final rule.

Chapters 25 and 26 establish the process for a project that proposes to impact wetlands and streams in the District. These rules outline the permit application and review process for regulated activities that require either a District wetland and stream permit or a Clean Water Act Section 401 (33 U.S.C. § 1341) water quality certification. These rules establish the criteria to determine if a proposed

project is water-dependent, or if the proposed project is not water-dependent and has no practicable alternative. The regulations detail the planning process that requires avoidance and minimization of wetland and stream impacts to the maximum extent practicable. These regulations also describe the mitigation requirements for impacts to wetlands and streams that are necessary to ensure lost wetland and stream functions are replaced and to ensure no net loss of wetland and stream acreage.

Plan Overview

The DC Wetland Program Plan provides a framework and direction to DOEE to build, strengthen, and improve the ability of the District to protect and conserve its wetlands. The plan identifies specific actions that DOEE plans to implement between 2021 and 2026 to improve its wetland program and achieve the goal of no net loss and eventual net gain of wetlands.

The actions identified in this plan will help the District to achieve the following outcomes: (a) effective and efficient regulation of all District wetlands with clear guidance provided to the public on the identification of wetlands, avoiding impacts, and applying for permits; (b) the creation and implementation of a wetland monitoring and assessment plan for District wetlands; (c) the identification of opportunities for wetland creation, restoration, and enhancement; (d) increased understanding of wetland values and functions among the general public through outreach and education efforts; (e) improved knowledge sharing with other environmental stakeholders; and (f) increased wetland expertise and capacity among DOEE staff.

Tangible products expected to be produced during the 2021-2026 plan period include (a) a final rulemaking protecting DC wetlands; (b) a revised in-lieu fee schedule; (c) a monitoring plan for DC wetland assessment; (d) a rapid assessment protocol with field forms and training manual adapted for DC wetlands; (e) a site level assessment method (SLAM) protocol selection for in-depth (EPA Level 3) individual site assessment; (f) a quality assurance project plan (QAPP) for the monitoring and assessment program; (g) a catalog of priority restoration or enhancement sites; (h) updates to the Wetland Registry based on ongoing mapping efforts; (i) report(s) on wetland status and trends based on monitoring results; and (j) a portfolio of outreach and educational materials, including presentations, print brochure(s), and web resources.

Program Elements

Four core elements are identified by the U.S. Environmental Protection Agency as part of their Enhancing State and Tribal Wetlands Program (ESTP) Core Elements Framework (CEF):

- 1) Regulation
- 2) Restoration and Protection
- 3) Monitoring and Assessment
- 4) Water Quality Standards.

States and tribes are encouraged to identify and act upon their own programmatic priorities. Consistent with the intent of the Core Element Framework they may adapt their programs accordingly. To reflect current goals and priorities, DOEE has added an additional program element not included in the CEF:

5) Information, Outreach, and Education

Tables listing the goals, objectives, and activities under each program element are below with calendar year targets.

I. Program Plan Elements

Program Element 1: Regulation

Goal: To avoid and minimize wetland losses, preserve wetland functions, and replace unavoidable or unauthorized losses with sustainable wetlands of at least equal size and functionality.

1.1 Objective: Effectively and efficiently protect and regulate all District wetlands, regardless of federal jurisdiction.					
Activity	2021	2022	2023	2024	2025
a. Issue final rulemaking to close regulatory gap.	x				
b. Work with DOEE Surface and Groundwater System (SGS) staff to add automatic alerts during other DOEE permitting processes (e.g., wells) for potential wetland impacts.	x				
c. Issue amendment to final rulemaking.	x	x			
d. Develop Memorandum of Understanding (MOU) with U.S. Army Corps (USACE) regarding “reasonable period of time” for Water Quality Certification (WQC) reviews.	x	x			
e. Determine how and whether to assess climate change impacts during permitting.			x	x	

1.2 Objective: Provide clear guidance to public on how to identify DC wetlands and streams and apply for permits					
Activity	2021	2022	2023	2024	2025
a. Create DC-specific Joint Federal/State Application for the Alteration of Any Floodplain, Waterway, Tidal or Nontidal Wetland.	x				
b. Update website with instructions on how to request a pre-application meeting and how to conduct a presence/absence of wetlands survey.	x				

c. Provide single website landing page for all information needed by members of the public for permitting process.	x				
d. Publish a guidance document to assist public in applying for a Wetland and Stream Permit (WSP) and WQC.	x				

1.3 Objective: Enforce and track regulatory activities within District boundaries to ensure environmental results.					
Activity	2021	2022	2023	2024	2025
a. Monitor the implementation of permit/certification conditions by tracking: <ul style="list-style-type: none"> • 401 certification conditions that are incorporated into the final permit • 401 certification or District water quality permit conditions executed • Number of post-construction sites monitored for compliance with permit conditions • Number of post-construction sites in compliance with conditions 	x	x	x	x	x
b. Develop and implement an enforcement response plan, for investigating and enforcing reports of wetland or stream violations or illegal impacts. The plan shall include procedures for assessing potential violations and impacts and the process for consulting and coordinating with DOEE wetland and stream subject matter experts (SMEs).			x		
c. Enforce wetland and stream protections (ongoing).	x	x	x	x	x
d. Crosstrain wetland and stream permitting staff in enforcement and compliance monitoring protocols to ensure proper evidence collection methods and compliance monitoring techniques.	x	x			
e. Measure environmental results by tracking number of: <ul style="list-style-type: none"> • permitted sites that are inspected per year • permits in compliance • non-compliant sites where enforcement actions taken • non-compliant sites brought into compliance within timeframe • of unauthorized impacts brought into compliance (annual tracking) • mitigation sites monitored • mitigation sites established • mitigation sites meeting performance goals 		x	x	x	x

1.4 Objective: Improve ILF and mitigation program within District boundaries.					
Activity	2021	2022	2023	2024	2025
a. Conduct re-evaluation and update of ILF costs.	x				
b. Investigate USACE-approved ILF or mitigation bank.				x	

Program Element 2: Restoration and Protection

Goal: Increase wetland acreage and improve wetland function through effective restoration action, and promote sound wetland stewardship.

2.1 Objective: Identify restoration/enhancement priority areas and create management recommendations.					
Activity	2021	2022	2023	2024	2025
a. Update and maintain a database of District, federal, or private properties with wetlands or streams that could benefit from restoration or enhancement or present opportunities for wetland creation (ongoing, part of Monitoring and Assessment program, see 3.3).		x	x	x	x
b. Develop agreement/MOU with National Park Service (NPS) to allow for restoration projects within park boundaries.		x	x		
c. Work with NPS to develop catalog of potential wetland and stream restoration projects within the District (ongoing, concurrent with Monitoring and Assessment program).		x	x	x	x
d. Investigate and pursue additional funding sources for creation, restoration, or enhancement projects (ongoing).		x	x	x	x
e. Work with DOEE's Fisheries and Wildlife Division (FWD) to target conservation opportunity areas for wetland restoration.			x	x	
f. Create list of areas that could benefit from volunteer enhancement efforts (e.g., trash clean-up, invasive removal) to share with environmental stakeholder partners.			x	x	x
g. Share restoration and protection priorities with partners.				x	x

2.2 Objective: Increase wetland acreage and function through creation, restoration, or enhancement					
Activity	2021	2022	2023	2024	2025
a. Use ILF funds to implement creation, restoration, and enhancement projects.		x	x	x	x
b. Provide technical assistance to creation, restoration, and enhancement projects as needed (ongoing).	x	x	x	x	x

2.3 Objective: Monitor and track restoration progress over time and document results.					
Activity	2021	2022	2023	2024	2025
a. Track creation, restoration, and enhancement projects.	x	x	x	x	x
b. Monitor creation, restoration, and enhancement sites to ensure that they are implemented and managed correctly.			x	x	x

Program Element 3: Monitoring and Assessment

Goal: Improve the District’s knowledge of and ability to sustainably manage and conserve its wetlands, including wetland function and condition, such that important ecosystem services, including flood attenuation, water quality protection, provision of wildlife habitat, protection of biodiversity, and educational/recreational opportunities are preserved and maintained to benefit DC residents.

3.1 Objective: Maintain and update an inventory of DC’s wetland and stream resources that provides both basic resource information and a baseline for evaluating gains and losses over time					
Activity	2021	2022	2023	2024	2025
a. Update Wetland Registry with remaining (~8%) unmapped District wetlands.	x	x	x		
b. Work with EPA’s Watershed Resources Registry (WRR) team to develop WRR for the District.	x	x	x		
c. Add wetlands identified by Rapid Stream Assessment (RSA) teams during stream assessment activities.	x	x	x	x	x
d. Update Wetland Registry with other newly discovered wetlands on ongoing basis.	x	x	x	x	x

3.2 Objective: Develop a coordinated monitoring and assessment strategy to measure function and condition of District wetlands, to detect changes and stressors, and to characterize trends over time to inform better decision making. Improve Level 1 Landscape Level Assessment and choose and develop Level 2 Rapid Assessment and Level 3 Site Level Assessment Method (SLAM) for DC wetlands consistent with EPA guidance.

Activity	2021	2022	2023	2024	2025
a. Define wetland monitoring objectives.	x				
b. Review available literature and consult with experts to determine assessment method(s) most suitable for an entirely urban watershed.	x				
c. Develop and field-test rapid assessment method for District wetlands.	x	x			
d. Participate in National Wetland Condition Assessment (NWCA).	x				
e. Investigate and establish reference conditions.	x	x			
f. Develop monitoring design and schedule that best serves monitoring objectives.	x	x			
g. Ensure the scientific validity of monitoring and laboratory activities by developing and implementing data collection guidance document and Quality Assurance Project Plan (QAPP).	x	x			
h. Conduct annual review of QAPP to ensure continued validity of methods and staffing assignments.			x	x	x
i. Design a data management system that fits program objectives.	x	x			
j. Create phone/tablet app that can be used to gather and submit wetland assessment information from the field.		x	x		
k. Develop or adapt protocols for Level III assessment method, including biological indicators to assess wetland condition.				x	

3.3 Objective: Implement a sustainable monitoring program consistent with the wetlands monitoring strategy.

Activity	2021	2022	2023	2024	2025
a. Monitor wetland resources as specified in strategy (ongoing).			x	x	x
b. Obtain supplemental staffing assistance to perform data collection (e.g., intern, Green Fellow, temporary assistance from other Divisions).			x	x	x
c. Track monitoring data in a system that is accessible, updated on a timely basis, and integrated with other agency natural resources data (see 3.2.g)		x	x	x	x

d. Input assessment data from 2016-2017 effort (currently on PDF forms linked in ArcGIS Wetland Registry) into Wetland Monitoring database.				x	x
e. Make monitoring data publicly available through DOEE website (ongoing).			x	x	x
f. Cooperate in maintaining an updated National Wetland Inventory (NWI) for the District.	x	x	x	x	x

3.4 Objective: Analyze monitoring data to evaluate wetlands extent and condition/function or to inform decision-making.

Activity	2021	2022	2023	2024	2025
a. Work with DOEE Fisheries and Wildlife Division (FWD) to incorporate data from Vernal Pool Monitoring, FrogWatch, or other existing biological monitoring programs to provide more holistic view of wetland health and habitat services as appropriate.		x	x	x	x
b. Assess success/failure of past mitigation sites (those greater than 5 years old) using monitoring protocols and success criteria; (may not apply yet)				x	
c. Summarize and translate wetland monitoring and assessment data into information that can be utilized for agency leadership decision-making (e.g., Biennial Status and Trends Report)					x

Program Element 4: Water Quality Standards

Goal: Restore, maintain and enhance the water quality of the District’s wetlands.

4.1 Objective: Identify measures and information needed to determine whether or not updated wetland water quality standards would advance wetland protection and management.

Activity	2021	2022	2023	2024	2025
a. Decide within the agency on the potential need for update to wetland water quality standards in the District and general implementation.					x
b. Conduct literature review on narrative criteria adopted in surrounding states.					x

4.2 Objective: Develop wetland-specific water quality standards (optional, dependent on whether agency chooses to advance with update to wetland-specific water quality standards).

Activity	2021	2022	2023	2024	2025
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a. Analyze data collected through monitoring and assessment program to inform update to water quality standards.					x
b. Draft appropriate update to wetland-specific designated uses to be achieved and protected.					x
c. Draft update to narrative criteria that qualitatively describe the condition or suite of functions that must be achieved to support a designated use.					x

Program Element 5: Information, Education and Outreach

Goal: Develop and deliver outreach materials, presentations, and training to decision makers and the general public. Enable better informed decision-making and increase awareness of wetland management programs, wetland values, and permit compliance.

5.1 Objective: Directly engage with environmental stakeholder groups to share local knowledge and expertise, and to collaborate on wetland stewardship events and activities.					
Activity	2021	2022	2023	2024	2025
a. Create and present updates on the Wetland Program for environmental stakeholders and general public.	x				
b. Reach out to stakeholders to create informal DC Wetlands Advisory Group (DCWAG).		x			
c. Meet with DC Wetlands Advisory Group members as needed.		x	x	x	x
d. Identify partners to organize volunteer trash pick-ups in wetlands.		x			
e. Identify partners to sponsor tours of wetlands.			x		

5.2 Objective: Educate and raise awareness of the value and benefits of healthy wetlands, and as a result, increase advocacy for the protection of wetlands.					
Activity	2021	2022	2023	2024	2025
a. Send outreach materials to private landowners with mapped wetlands onsite to inform them of wetland benefits and regulatory protections.	x				
b. Work with OCEO to have regular social media updates with photos of wetlands/facts about wetlands (possible partnerships).		x			

c. Formally observe American Wetlands Month (May). Could include special events, specially designed content for month-long social media campaign, tours of wetlands, etc.	x	x	x	x	x
d. Formally observe World Wetlands Day in early February with social media post(s) and/or other outreach.		x	x	x	x
e. Identify key messages for future wetlands outreach efforts; standardize/unite messages across partner groups to increase repeated exposure of the public to those messages; update website to reflect key messages.	x	x	x		
f. Develop standardized presentation(s) on various wetland restoration projects, wetland types/values, wetland and stream regulations, success stories; make available for web download.			x		
g. Develop print educational/outreach materials.		x	x	x	x
h. Update website with informational tools and educational resources, including partner materials (Educational topics to include: value of wetlands and stream, how wetlands work, plants and animals of wetlands and streams, and general educational/explanatory graphics).	x	x	x	x	x
i. Provide interpretative signage to educate public of wetland benefits at certain wetland sites in DC (especially wetlands of special concern), possibly working with partners.	x	x	x	x	x
j. Identify high quality outreach opportunities for promoting wetlands, e.g., host activity booth at public events (e.g., Anacostia River Festival or Capital Nature Challenge).		x	x	x	x

5.3 Objective: Provide clear and easy access to wetland resources, wetland management, updates on the development of DC's WPP, and program contacts.

Activity	2021	2022	2023	2024	2025
a. Create listserv for sharing news and updates on DC's wetland program and for other stakeholders to share wetland news and events.	x				
b. Provide website updates on implementation of WPP		x	x	x	x
c. Develop presentations for use at conferences such as the Association of State Wetland Managers (ASWM) Annual Meeting or for a Mid-Atlantic Wetlands Working Group (MAWWG) meeting.	x	x			
d. Create presentation that could be used for local volunteer networks, such as Master Naturalist or Master Watershed Steward groups				x	

5.4 Objective: Utilize regional networks of wetland professionals to enhance collective understanding of wetland program best practices.					
Activity	2021	2022	2023	2024	2025
a. Maintain active involvement with MAWWG and ASWM (ongoing).	x	x	x	x	x

II. Funding Sources

Funding for the work detailed in the plan comes from a variety of sources, and research on funding opportunities is included as an activity within the WPP (2.1.d). Potential funding sources for high-level projects are indicated in the table below, although additional funding sources will also be explored.

Potential Funding Sources for District of Columbia Wetland Program Plan	
Activity	Potential Funding Source(s)
Updates to DOEE wetland and stream permitting guidance	DOEE
Wetland and stream permit inspection and enforcement activities	DOEE
Creating a USACE-approved ILF or mitigation bank	DOEE
National Wetland Condition Assessment	EPA, NRCS, DOEE
National Wetland Inventory updates	DOEE
Develop database for preservation, creation, restoration, or enhancement opportunities	DOEE
Wetland preservation, creation, restoration and enhancement	In-Lieu Fee program, DOEE, National Fish and Wildlife Foundation's Chesapeake Bay Stewardship Fund, other sources to be explored
Wetland Monitoring & Assessment Program development	EPA WPDG 96382501
Wetland Monitoring & Assessment ongoing	EPA, DOEE
Watershed Resources Registry development for the District	EPA, DOEE
Recommendations for revisions for water quality standards for wetlands	EPA, DOEE
Information, outreach, and education activities	DOEE, other sources to be explored

III. Program Ties

Wetland Conservation Plan

The WPP is intended to act as a complementary document to the District's [Wetland Conservation Plan](#) (WCP). In 2020, DOEE published an update to the District's 1997 WCP. The original 1997 WCP established the goal of no net loss and eventual net gain of wetland acreage and function and provided a large-scale wetland inventory. The 2020 update to the WCP included the following substantial updates:

- Detailed mapping of 92% of potential District wetlands (areas determined to have wetland characteristics via a desktop analysis);
- Baseline data on wetland conditions including soils, hydrology, vegetation, percent cover of invasive species, photographs, and functions and values assessments;
- A publicly available Wetland Registry geodatabase that houses all of the data collected for this update;
- Updated methodology to evaluate wetland functions and values assessments;
- Updated methodology to assess wetland restoration and enhancement opportunities;
- Guidance to select candidate sites to create new wetlands; and
- Recommendations to improve implementation of the WCP.

Sustainable DC 2.0

The [Sustainable DC 2.0 plan](#) outlines the Mayor's vision for a sustainable city and strategic action to achieve goals related to the environment, energy, food, nature, transportation, waste, and water, as well as the economy. The District's priority for the natural environment is to protect, restore, and expand aquatic ecosystems.

Sustainable DC 2.0 set the following targets to protect, restore, and expand aquatic ecosystems:

- Target NA1.1: Develop a Wetland Registry to facilitate restoration or creation of wetland habitat.
- Target NA1.2: Plant and maintain an additional 150 acres of wetlands in targeted Conservation Opportunity Areas.
- Target NA1.3: Partner with developers to incorporate living shorelines in waterfront developments.
- Target NA1.4: Reduce threats to 75 aquatic species of greatest conservation need.

As a result of the 2020 WCP update, the Wetland Registry has been developed, and one of its many uses will be to serve as a tool to plan wetland creation and restoration projects. The 2021-2026 Wetland Program Plan will further DOEE efforts towards Targets NA1.2, NA1.3, and NA1.4.

Climate Ready DC

Recognizing the need to prepare and adapt, the Sustainable DC Plan established a goal to make the District more resilient to future climate change. [Climate Ready DC](#) is the District’s strategy for achieving this goal while helping to ensure that our city continues to grow greener, healthier, and more livable. Wetlands play an important role in building climate resiliency. Wetlands regulate, capture, and store greenhouse gases. They also absorb excess rainfall, protecting cities from storms and surges. Wetlands can reduce flooding impacts and reduce urban heat island effects. The WPP additionally specifically supports the following Buildings and Developments goal in the Climate Ready DC plan:

- BD 11.0 Provide incentives to encourage private property owners and developers to implement flood resiliency measures.

Implementation of the WPP includes identification of sites for wetland creation and restoration that could be used in support of this action. Creation of the WPP additionally complies with the following action identified in the plan:

- GI 17.7 Incorporate climate risks and adaptation strategies into natural resource and ecosystem planning, including the Wildlife Action Plan, Wetland Conservation Plan, and tree canopy plan.

DOEE Strategic Plan

The DOEE Strategic Action Plan outlines nine strategic goals for the agency. Objectives and activities in the WPP support specific strategic goals in the following ways:

Strategic Goal	WPP Support for Goal
Goal #1- Build resiliency to environmental hazards and protect people, property and wildlife	The entirety of the WPP is intended to help the District preserve and protect wetlands, which are crucial for climate resiliency through the capture and storage of flood waters, carbon storage, recharge of groundwater during periods of drought, and mitigation of urban heat islands.
Goal #5- Enrich and increase education, outreach, and engagement to inform and involve citizens in environmental decisions and projects	The WPP supports this goal through activities outlined in Program Element 5: Information, Education, and Outreach. These activities are intended to educate and engage community members on wetland values and increase community advocacy.
Goal #6- Improve water quality	The WPP includes activities to support water quality improvement, including those outlined in Program Element: Water Quality Standards, which are intended to explore whether updated water quality standards would be beneficial for the District’s wetlands. The WPP also includes activities specifically outlined for the following strategy outlined in in the Strategic Plan for this goal: “Increase wetland acreage and improve wetland

	<p>and stream function through effective restoration action and stewardship.” These activities are included in both documents:</p> <ul style="list-style-type: none"> • Issue final rulemaking to protect DC wetlands and streams. • Update In-Lieu Fee (ILF) program to discourage loss of wetland and stream function and use ILF funds to implement restoration or creation projects. • Create comprehensive guidance for wetland and stream permitting and water quality certification application process. • Identify wetlands and streams that could benefit from restoration or enhancement, or areas that present opportunities for wetland creation.
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IV. Acronyms

ASWM	Association of State Wetland Managers
CEF	Core Elements Framework
DCMR	District of Columbia Municipal Regulations
DCWAG	District of Columbia Wetlands Advisory Group
DOEE	Department of Energy and Environment
EPA	United States Environmental Protection Agency
EQuIS	Environmental Quality Information System
FWD	DOEE Fisheries and Wildlife Division
ILF	In-Lieu Fee
MAWWG	Mid-Atlantic Wetlands Working Group
MOU	Memorandum of Understanding

NPS	National Park Service
NRCS	National Resources Conservation Service
NWCA	National Wetland Condition Assessment
NWI	National Wetland Inventory
OCEO	DOEE Office of Communications, Engagement, and Outreach
QAPP	Quality Assurance Project Plan
RSA	Rapid Stream Assessment
SLAM	Site-Level Assessment Method
SGCN	Species of Greatest Conservation Need
USACE	United States Army Corps of Engineers
WCP	Wetland Conservation Plan
WPP	Wetland Program Plan
WPD	Watershed Protection Division
WQC	Water Quality Certification
WQD	Water Quality Division
WRR	Watershed Resources Registry