Climate Action Plan 2021

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1. Agency Policy for Climate Change Adaptation and Resilience:

The National Capital Planning Commission (NCPC), an independent executive branch agency, defines and protects the federal government's interests in the development of the National Capital Region. We are guided by the National Capital Planning Act; the National Historic Preservation Act; the National Environmental Policy Act; and environmental and energy statutes, regulations, and executive orders. Through comprehensive planning, project and plan review, and special long-range planning initiatives, we protect the broad and multifaceted interests related to federal land; buildings and operations; parks and open space; and the form, character, and experience of the nation's capital.

NCPC's strategic goals are as follows:

Goal 1: Craft policies, guidelines, and plans that employ the highest standards of urban design and planning to define and advance the federal government's interest in the National Capital Region's long-term development.

Goal 2: Review proposals subject to Commission approval or advice to determine whether they are consistent with the federal interest.

Goal 3: Inform the public of its activities, encourage citizens to become involved in the planning process, and participate in broader professional discussions at local, national, and international levels.

Goal 4: Build consensus and facilitate cooperation among citizens, public interest groups, nongovernmental organizations, and governmental agencies to shepherd plans and policies toward fruition.

Goal 5: Embrace the best practices for the continual development of its human resources, work processes, and technology to respond to the National Capital Region's changing planning needs.

Purpose of Climate Adaptation and Resilience Planning Policy

It is important to anticipate the scope, severity, and pace of future climate change impacts on the federal government's sites, buildings, and operations. Adaptation planning will allow NCPC to minimize the negative impacts of climate change that are already occurring in the National Capital Region and take advantage of opportunities to coordinate and respond effectively to future conditions.

NCPC does not own real property, manage fleets, fund capital projects, or have implementation authority. Our vision of success falls on our role in facilitating and encouraging other federal agencies to improve their climate resilience; and by participating in interagency efforts that advance and formalize adaptation strategies that will result in greater benefits for the National Capital Region.

The agency's Climate Action Plan will identify how climate change may impact NCPC's ability to achieve its mission and will prioritize actions to reflect current and future climate change risks and opportunities for adaptation. In addition to meeting the agency's strategic goals, NCPC commits to advancing climate change adaptation and resiliency planning using the best available science and information. NCPC will also consider climate change adaptation opportunities when updating the Comprehensive Plan for the National Capital (Comprehensive Plan), preparing issue, sector, and site plans, reviewing federal plans and projects, and monitoring federal capital improvements. This will facilitate protection of federal assets and investments, ensure the long-term resiliency of federal operations, and support economic vitality in the National Capital Region.

NCPC will update its agency-wide Climate Action Plan per Executive Order 14008 (E.O. 14008). The plan will incorporate the findings and directives of this policy statement and coincide with the development of the upcoming fiscal year's work plan. The plan will align with the vision and strategic priorities identified in the agency's annual Sustainability Report and Implementation Plan.

2. Identify an Agency Official Responsible for Implementation of the Plan:

The agency's Executive Director, Marcel Acosta, is the designated Chief Sustainability Officer and is responsible for ensuring implementation of all aspects of this Plan. The agency also appointed a lead sustainability planner, Elizabeth Miller, to manage the agency's operations in meeting the goals and requirements of E.O. 14008.

3. Five Priority Adaptation Actions – Develop a Streamlined Action Plan for Climate Adaptation and Climate Resilience:

Over the past few years, NCPC has integrated climate change adaptation into its programs, policies, and operations. NCPC will continue to identify near-term (within four years), long-term (within 10 years), and ongoing opportunities to incorporate climate adaptation goals and policies in its four core activities:

Comprehensive Planning: The Comprehensive Plan includes goals and policies for effectively siting federal facilities, supporting transportation management and sustainable development patterns, creating and preserving parks and open space, and flood risk mitigation to provide an efficient workforce and public use, protection, and enhancement of federal assets. NCPC use Comprehensive Plan goals and policies to encourage federal adaptation actions that enable the federal government to manage climate change risks in the National Capital Region.

Federal Capital Improvements Program (FCIP): Capital improvement plans provide a link between the visions articulated by comprehensive plans and annual capital expenditure budgets, allow for a systematic, simultaneous evaluation of potential projects, and facilitate coordination among the units of government that are responsible for project implementation. Through review of capital improvement plans by regional jurisdictions and FCIP preparation and reporting, NCPC coordinates capital improvement planning at federal and local levels. NCPC will use the FCIP process to encourage agencies to identify climate adaptation strategies in their submissions.

Project and Plan Review: NCPC will work directly with federal agencies through the planning and design review process to identify climate change risks and describe adaptation measures considered in the projects and plans submitted to NCPC for review. Early engagement provides opportunities to integrate climate adaptation goals early and influence project outcomes.

Special Initiatives: NCPC's long-range planning work promotes efficient energy and water use, enhanced environmental performance, and waste reduction. NCPC will include climate adaptation strategies when preparing plans and initiatives that address current planning needs of the federal government in the National Capital. Current work includes the Monumental Core Streetscape Guide, the Pennsylvania Avenue Initiative, and Independence Avenue Urban Design and Streetscape Plan.

Within these four core activities, NCPC identified five specific priority adaptation actions:

1. Comprehensive Plan Updates

The National Capital Planning Act requires that NCPC prepare and adopt a "comprehensive, consistent, and coordinated plan for the national capital." The Comprehensive Plan's Federal Elements are the blueprint for the long-term development of the National Capital Region and are the decision-making framework for Commission actions on plans, proposals, and policies submitted for its review. The Federal Elements are shaped by three guiding principles: accommodate federal and national capital activities; reinforce smart growth and sustainable development planning principles; and support local and regional planning and development.

Highlights: NCPC is updating the Federal Workplace Element to include policies that encourage agencies to include resilience planning and adaptation strategies in their projects and long-term planning efforts. NCPC is also working to better understand the long-term implications, accelerated by the pandemic, on workplace locations and transportation choices, which will have sustainability implications. An upcoming update to the Federal Environment Element will reflect E. O. 14008 policy for adaptation planning and future federal sustainability guidance, strengthen policy language related to resiliency and aging infrastructure, and include policy to address adaptation and environmental justice.

Lead: NCPC's Policy and Research Division (PRD) leads this effort

Risks Addressed: extreme precipitation, increased flooding, erosion, average temperature rise, extreme heat, severe weather events, aging infrastructure

Opportunity: Updates to the Federal Elements are opportunities to incorporate adaptation strategies into guidance for decision making and planning and increase awareness of current climate change risks.

Scale: local and regional

Timeframe: ongoing

Implementation Methods: internal and stakeholder coordination, Commission review

Performance Measurements and Milestones: Commission adoption, utilization of policy for evaluation of projects during project and plan review

Coordination: currently coordinated with applicant agencies including external federal, regional, and local stakeholders, and interest groups

2. Updates to the review process: Federal Capital Improvements Program

The National Capital Planning Act requires that NCPC annually review and recommend a six-year program of federal capital improvement projects for the National Capital Region. The Federal Capital Improvements Program (FCIP) is an annual collection of funding requests for the construction of new, or renovation of existing federal buildings and infrastructure. Federal agencies in the National Capital Region submit projects to NCPC for compilation and review. Along with construction projects, federal

agencies submit requests for the acquisition of buildings or lands. These requests are generally for projects with a life expectancy of more than 25 years. The full cost of capital improvement projects extends from a project's planning through its construction.

Each summer, NCPC submits the FCIP to the Office of Management and Budget (OMB) for use in its preparation of the President's annual budget. Through the FCIP, NCPC provides OMB with its planning and funding recommendations for federal public works over a six-year period.

Highlights: During FCIP review, NCPC engages federal agencies for the submission of capital improvement projects in early stages of project development. NCPC can use the FCIP solicitation process to ask how federal agencies are integrating renewable energy, resilience, and climate readiness in their projects. NCPC can use the FCIP as a planning tool to help guide applicants to consider climate adaptation and resilience early in their planning process.

Lead: Policy and Research Division (PRD) will lead this effort

Risks Addressed: extreme precipitation, increased flooding, erosion, average temperature rise, extreme heat, severe weather events, aging infrastructure.

Opportunity: The annual FCIP review provides an opportunity to use the solicitation process to collect information and the reporting process to document agencies commitment to incorporating federal sustainability, adaptation, and resilience planning goals. FCIP may report on how projects meet certain resiliency goals as defined by E.O. 14008 and other federal sustainability guidance.

Scale: local, regional

Timeframe: ongoing

Implementation Methods: consultation and coordination with submitting agencies for FCIP during the project solicitation stages.

Performance Measurements and Milestones: Commission approval or adoption

Coordination: currently coordinated with applicant agencies, stakeholders, and interest groups through the review process

3. Updates to the review process: Project and Plan Review

The National Capital Planning Act also requires federal agencies to submit project plans and development proposals for federal property to the Commission for review. Depending upon the project's location (within or outside Washington), the Commission either approves the project (approval authority) or provides recommendations (advisory authority). The Commission's approval authority extends to review of federal agency projects that include, without limitation, buildings, uses, structures, and signage on federally controlled land in Washington, DC. When exercising NCPC's National Environmental Policy Act (NEPA) responsibilities, the agency also has an opportunity to consider climate related issues during project review.

The Commission typically reviews about 120 projects annually, including master plans, project plans, site selection and design of commemorative works, and amendments to District zoning maps and

regulations. The review process promotes orderly development among the significant federal assets in the nation's capital, encourages federal leadership in physical development and stewardship of the region's extraordinary resources, and considers how the federal presence can complement and support the region's communities.

Highlights: During the project and plan review process, NCPC generally engages federal agencies early in their planning and design process regarding plans and projects that will be submitted for formal Commission review. NCPC can use the consultation process to initiate discussion regarding relevant topics such as renewable energy, resilience, and climate literacy. Early discussions can provide opportunities to influence project development in ways that can help align with climate action goals.

To help support these efforts, NCPC may consider updates to the NCPC submission guidelines to help applicant agencies identify climate adaptation opportunities and challenges and prepare resource guides to help enhance climate literacy and explain applicable federal requirements or orders. NCPC's submission guidelines already require applicants to respond to a variety of sustainability areas such as stormwater management, green building, transportation management, and protection of natural resources; however, updates may be necessary to address new federal guidance.

Lead: NCPC's Urban Design and Plan Review Division (UDPRD) will lead this effort

Risks Addressed: extreme precipitation, increased flooding, erosion, average temperature rise, extreme heat, severe weather events, aging infrastructure

Opportunity: The project and plan review process provides an opportunity to encourage applicant agencies to meet federal sustainability, adaptation, and resilience planning goals.

Scale: local, regional

Timeframe: ongoing

Implementation Methods: pre-submission briefings, consultation, and coordination with applicant agencies for project and plan review

Performance Measurements and Milestones: Commission approval or adoption

Coordination: currently coordinated with applicant agencies, stakeholders, and interest groups through the review process

4. Monumental Core Streetscape Project – Streetscape Manual Guideline Update

NCPC, in collaboration with an Interagency Working Group, is undertaking the Monumental Core Streetscape Project, an initiative to update the 1992 *National Mall Streetscape Manual*. The Streetscape Framework identifies, categorizes, and provides principles for streets within the 1992 boundary, as amended. The purpose of this effort is to help unify the capital city by improving streetscape standards and transitions among neighborhoods, as well as coordination among

numerous federal and local jurisdictions.

The Monumental Core Streetscape Project workplan includes four phases. The first phase of work focused on development of a streetscape framework and development of lighting policy for areas within the 1992 Streetscape Manual boundary. The second phase of work entails developing streetscape guidelines. In accordance with the Streetscape Framework, guidelines will be developed in phases, starting with vertical elements, such as trees and light poles; then surface elements like stormwater management and curbs and gutters; and concluding with streetscape elements like benches and garbage receptacles. The third phase entails updating construction details and specifications, and the fourth includes updating the Interagency Memorandum of Agreement to guide implementation.

Highlights: In 2019 the Commission approved the concept framework and lighting policy. The Commission will review the vertical and surface elements including tree canopy and stormwater management for preliminary approval in late 2021.

Lead: NCPC's Physical Planning Division leads this effort in coordination with the Interagency Working Group

Risks Addressed: extreme precipitation, increased flooding, average temperature rise, extreme heat

Opportunity: The guideline update is an opportunity to address the identified risks and showcase and standardize sustainable design and resiliency planning best practices.

Scale: local

Timeframe: near-term

Implementation Methods: interagency coordination

Performance Measurements and Milestones: Commission acceptance, guideline implementation and interagency MOU update

Coordination: currently coordinated with the Monumental Core Interagency Working Group consisting of 11 federal and local agencies

5. Federal Triangle Flooding

As part of an interagency working group led by the District of Columbia (DC) Silver Jackets[1], NCPC's role is to help facilitate stakeholder coordination and exchange of information on flood mitigation and stormwater infrastructure in the National Capital Region. This working group aims to align efforts among local and federal agencies to protect assets within the capital city, including coordination towards a comprehensive flood risk management strategy for the Federal Triangle area.

Highlights: In January 2018, NCPC and DC Silver Jackets Team jointly released the Flood Risk

1 The D.C. Silver Jackets is an interagency team comprised of members from federal, District of Columbia and regional agencies, as well as academia. This team leverages resources to identify and implement comprehensive, resilient, and sustainable solutions to reduce flood risk around the District and to assist local communities.

Management Planning Resources for Washington, DC. The guide includes a summary of the region's flood risk, an overview of 11 studies and tools that address current and future flood risks in the region, and brief descriptions on how these studies can be used to support adaptation strategies.

The DC Silver Jackets hosted a federal and local agency workshop to discuss various systemic solutions for flooding in the Federal Triangle. These workshop results provide general guidance regarding preferences, issues, and viability of various system-wide options and are intended to shape any future environmental review of alternatives.

Lead: NCPC's Office of Public Engagement participates in this effort led by the DC Silver Jackets

Risks Addressed: extreme precipitation, increased flooding

Opportunity: The ongoing interagency effort is an opportunity to assess and update current risks and formalize information exchange.

Scale: local and regional

Timeframe: ongoing

Implementation Methods: interagency coordination

Performance Measurements and Milestones: development of a formal comprehensive flood risk management strategy for the Federal Triangle Area

Coordination: currently coordinated with the DC Silver Jackets, consisting of federal, District, and local agencies, and academic partners

Resource Implications: Either individual or system-wide flood risk management strategies will require additional environmental and regulatory review, and additional resources for implementation. The Silver Jackets team is conducting discussions with various agencies to better analyze potential qualitative and quantitative damage impacts from future flooding.

4. Specific Topic Areas: Update Climate Vulnerability Assessments

NCPC's mission and agency operations will not be immediately or significantly impaired by the climate change related risks described below. NCPC does not manage procurement, real property, public lands and waters, fund capital projects, or have implementation authority. As such, we do not undertake or budget for any direct adaptation actions outside of incorporating climate change adaptation goals and policies into our core functions. We also do not integrate these vulnerabilities into our agency enterprise risk management process. We rely on our role in facilitating and encouraging other federal agencies to identify and manage risks, implement adaptation strategies, and improve their climate resilience.

Each of these impacts could affect federal development projects that NCPC reviews. While applicant agencies are responsible for their specific project plans, NCPC has the authority to review the project to ensure that it is consistent with the Comprehensive Plan's goals and objectives, including policies that encourage applicant agencies to include risk assessments, adaptation strategies, resilience planning,

and emergency preparedness in their projects and long-term planning efforts. It is also important for NCPC to address climate change impacts in its own long-range planning projects and special initiatives.

The five vulnerabilities that have the most impact on the National Capital Region are:

Increased Flooding: The National Capital Region is vulnerable to three types of flooding: riverine, coastal, and interior. A riverine flood occurs when heavy rains or snowmelt in the Potomac River watershed - upstream of the city - causes flooding hours or days later in Washington, DC. Coastal floods occur when tropical storms or hurricanes push water up the Potomac River from the Chesapeake Bay and Atlantic Ocean. Interior floods or flash floods, occur when heavy rainfall overwhelms the stormwater sewer system.

Adaptation Action: All adaptation items listed above will address the risk of increased flooding. The Monumental Core Streetscape Project will address this directly by providing technical guidance regarding flood mitigation and stormwater management best practices. The Federal Triangle Flooding work addresses interior flood risk and will advance understanding and awareness of current scale of flood risk and formalize information exchange. Future Comprehensive Plan updates will strengthen policy language related to resilience and aging infrastructure. Updates to the review process provide opportunity to coordinate with partner and applicant agencies regarding consistency with federal guidance on flooding and managing the risk within their own authority. NCPC will continue to work with regional agencies including the Metropolitan Washington Council of Governments and the District of Columbia government regarding regional flood risk standards and studies.

Timeframe and Performance Measures: The Monumental Core Street Project is a near- term effort, with upcoming milestones in FY22. The Federal Triangle Flooding, Comprehensive Plan updates, and review process updates are all ongoing efforts that will progressively evaluate and address to meet the current scale of flood risk.

Resource Implications: The Federal Triangle Flooding work will require additional resources from funding partnerships.

Extreme Precipitation: The Federal Triangle, Rock Creek Park and the Tidal Basin area near the National Mall have flooded due to extreme rain events in the past. Constitution Avenue is prone to flooding even during small rain events. 2018 was DC's wettest year, with just over 50 inches of rain. In 2019, a record-breaking storm produced nearly a month's worth of rain in one hour. Current trends indicate that the Washington DC area will experience more frequent heavy rainfall events, especially in the fall and winter.

Adaptation Action: All adaptation items listed above will address the risk of extreme precipitation. The Federal Triangle Flooding work will advance understanding and awareness of the current scale of interior flood risk due to extreme precipitation and formalize information exchange, while the Monumental Core Streetscape Project will provide technical guidance regarding green infrastructure and stormwater management best practices. Comprehensive Plan updates and the Project and Plan Review process provide opportunity to work with partner and applicant agencies to guide them in managing the risk within their own authority.

Timeframe and Performance Measures: The Monumental Core Street Project is a near- term effort, with upcoming milestones in FY22. The Federal Triangle Flooding, Comprehensive Plan updates, and updates to the Project and Plan Review process are all ongoing efforts that have

upcoming milestones in FY22 and will progressively evaluate and address to meet the current scale of extreme precipitation risk and associated risks.

Resource Implications: The Federal Triangle Flooding work will require additional resources from funding partnerships.

Sea-level Rise: Sea-level rise and variability in weather events is likely to exacerbate the frequency and intensity of riverine, interior, and storm surge flooding. Potomac and Anacostia River levels have increased 11 inches in the past 90 years due to sea level rise and subsidence. The US Army Corps of Engineers predicts up to 3.4 feet of additional sea level rise in Washington DC by 2080.

Adaptation Action: Comprehensive Plan updates and the Project and Plan Review process provide opportunity to work with partner and applicant agencies to guide them in managing the risk within their own authority.

Timeframe and Performance Measures: Comprehensive Plan updates and updates to the Project and Plan Review process are ongoing efforts that will have upcoming milestones in FY22 and will progressively evaluate and address to meet the current scale of sea level rise risk and associated risks.

Resource Implications: None

Average Temperature Rise and Extreme Heat: Washington DC's average annual temperatures have increased by 2 degrees over the last 50 years and predicted to continue to rise. The area also suffers from the urban heat island effect, where paved areas in the District of Columbia can be 10-15 degrees hotter than the actual temperature during heat waves, while large natural areas like Rock Creek Park can measure 10 degrees cooler. Typical average summer high temperatures of 87 degrees are projected to increase to the mid-to upper 90's by 2080. Increased average temperatures will also increase the number of heat emergency days (days with a heat index of 95 degrees or above) and cause longer heat waves. In Washington DC, heat emergency days are projected to increase from the recent average of 30 per year, to potentially 70 per year by 2080.

Adaptation Action: The Monumental Core Streetscape Project will address this directly by providing technical guidance regarding green infrastructure and heat island mitigation best practices. Comprehensive Plan updates and updates to the review process provide opportunity to work with partner and applicant agencies to guide them in managing the risk within their own authority.

Timeframe and Performance Measures: The Monumental Core Street Project is a near- term effort, with upcoming milestones in FY22. The Comprehensive Plan updates and review process updates are ongoing efforts that have upcoming milestones in FY22 and will progressively evaluate and address to meet the current scale of average temperature rise and extreme heat risks.

Resource Implications: None

Severe Weather Events

Washington DC is vulnerable to coastal storms, like hurricanes, that cause storm surge flooding. More intense storms increase the risk of flooding, and can damage property, cause power outages, interrupt operations, and overwhelm aging infrastructure and other urban assets. Predictions suggest that by 2050, a 100-year storm could be as likely as today's 25-year storm.

Adaptation Action: Comprehensive Plan updates and updates to the Project and Plan Review process provide opportunity to work with partner and applicant agencies to guide them in managing severe weather risks within their own authority.

Timeframe and Performance Measures: Comprehensive Plan updates and updates to the Project and Plan Review process are all ongoing efforts that will have upcoming milestones in FY22 and will progressively evaluate and address the current threat of severe weather events and associated risks.

Resource Implications: None

There are many federally owned properties vulnerable to climate change impacts in the Washington, DC region, including parkland, military installations, museums, and agency headquarters which could be damaged or significantly impaired if no action is taken. In addition to federal operations and properties, many federal sites also house national treasures and important documents of national significance which could be permanently damaged or lost if no action is taken.

In addition to damage to physical property and disruption of operations, long term climate change may affect the form of the city and the integrity of the Plan of Washington. The Plan of Washington has been the basis of the street grid and the urban development pattern in Washington since the establishment of the capital in 1791. For example, symbolic views to national memorials, the White House, and the U.S. Capitol may be permanently altered if large scale infrastructure solutions to mitigate increased flooding are required in the vicinity of the National Mall.

5. Specific Topic Areas: Describe Agency Efforts to Enhance Climate Literacy in Its Management Workforce:

NCPC continues to lead and facilitate interagency coordination and collaboration efforts to address climate adaptation in the National Capital Region. Through its review authority over federal projects, NCPC already has a process that requires applicants to coordinate with other affected federal agencies and local communities on issues that affect external stakeholders. In the past, these issues focused on transportation management, urban design, environmental conservation, and resiliency planning. NCPC is expanding this focus in the coming years to include climate change adaptation and environmental justice.

Because NCPC does not own real property, manage fleets, or fund capital projects, we look to our applicant agencies for their progress indicators as these policies are implemented. As organizations develop more information regarding climate change in the National Capital Region, NCPC will continue

to incorporate relevant findings into the Comprehensive Plan, FCIP, the agency's project and plan review process, and its long-range planning activities.

NCPC is a small agency and climate literacy is critical for management and staff in all divisions. The agency encourages education and training opportunities for staff to further their understanding and expertise. NCPC will also continue to engage with local and regional organizations and agencies (such as the Metropolitan Washington Council of Governments, the District of Columbia government, the Urban Land Institute, academic organizations, and federal agencies) to stay informed and exchange information.

6. Specific Topic Areas – Describe Agency Actions for Climate-Ready Sites and Facilities:

NCPC does not own real property, manage fleets, or fund capital projects. However, NCPC can facilitate and encourage other federal agencies to improve their climate resilience by:

- integrating questions related to federal sustainability, adaptation, and resilience planning goals for applicant agencies to submit during the FCIP solicitation process;
- using the project and plan review process to encourage agencies to identify and document climate change risks and adaptation opportunities; and
- using the project and plan review process to support federal projects in the National Capital Region that are included in the agencies' adaptation plan priority action lists

7. Specific Topic Areas – Describe Agency Actions to Ensure a Climate-Ready Supply of Products and Services:

NCPC has limited opportunities to influence local climate-resilient investments due to our statutory authority; however, we continue to support smarter local and regional climate resiliency investments through our direct participation in interagency committees and stakeholder meetings organized by regional and local governments.

The annual FCIP reporting process provides an opportunity to track projects in various stages of completion that incorporate federal sustainability, adaptation, and resilience planning goals, including climate-related financial risk.

NCPC encourages the practice of leveraging one agency's resources with other relevant and concurrent initiatives by other agencies and helping these groups find synergies that result in greater benefits for the National Capital Region.

8. Existing Policies and Guidance:

NCPC will update its agency-wide Climate Action Plan per Executive Order 14008 (E.O. 14008). The plan will incorporate the findings and directives of this policy statement and coincide with the development of the upcoming fiscal year's work plan. The plan will align with the vision and strategic priorities identified in the agency's annual Sustainability Report and Implementation Plan.

In summary, through our agency strategic goals and priority adaptation actions, NCPC is committed to advancing climate change adaptation and resiliency planning to support sustainable infrastructure and development in the National Capital Region.

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