



Executive Director's Recommendation

Commission Meeting: November 5, 2020

PROJECT

Comprehensive Plan - Federal Environment Element's Tree Replacement Policy and Submission Guidelines Update

SUBMITTED BY

National Capital Planning Commission

REVIEW AUTHORITY

Preparation and Adoption of Federal Elements per 40 U.S.C. § 8721(a); and Project and Plan Review per 40 U.S.C. § 8711 (e)(2) and 8722(a)

NCPC FILE NUMBER

CP01B

NCPC MAP FILE NUMBER

00:00(00.00)45222

APPLICANT'S REQUEST

Adoption of the updated Federal Environment Element of the Comprehensive Plan for the National Capital: Federal Elements;

and

Adoption of the Revised Submission Guidelines

PROPOSED ACTION

Adopt updated element and submission guidelines as requested

ACTION ITEM TYPE

Staff Presentation

PROJECT SUMMARY

Staff requests the Commission adopt Section G of the Federal Environment Element (Element) of the *Comprehensive Plan for the National Capital: Federal Environment Elements* (Comprehensive Plan) and Submission Guidelines, effective 60-days after the publication of the federal register notice. The amendments are limited to three policies (FE.G.1, FE.G.2, and FE.G.3) within Section G of the Element that pertain to tree preservation and replacement. On July 9, 2020, the Commission released the draft Comprehensive Plan amendments and Submission Guidelines for a 60-day public comment period that closed on September 14, 2020. During that time, NCPC hosted two outreach sessions, one targeted toward the individuals of the public, interest groups, and industry professionals, and the other focused on federal and local government agencies. In addition, NCPC briefed the District of Columbia's Urban Forestry Advisory Council (UFAC) on the proposed draft at their quarterly meeting. Since then, the Element and Submission Guidelines have been revised to incorporate the comments received, guidance from stakeholder agencies, and minor text amendments for purposes of clarity.

The NCPC Submission Guidelines were updated to describe in detail the information necessary for master plans and individual project plan submissions to inform staff's analysis and the Commission's decisions related to tree preservation and replacement. As part of the update, staff

also prepared a new Resource Guide that supports the policies related to tree preservation and replacement in Section G of the Element, articulates NCPC's legislative authorities related to tree preservation and replacement, explains key concepts, and provides definitions for terms used in the policies and Submission Guidelines.

Modifications to the Element, Submission Guidelines, and Resource Guide have occurred since the draft release in July 2020 to address the comments received and provide additional clarity within the documents. These modifications include strengthening tree preservation and protection standards, clarifying the exceptions process, and refining the forest replacement ratio with a focus on quality measures.

Following Commission adoption, staff will incorporate any changes as directed and complete minor editorial updates to the text and graphics to ensure document accuracy and consistency. In addition, NCPC staff will notify applicant agencies, regional partners, and the public of the new effective date of Section G of the Federal Environment Element, Submission Guidelines, and Resource Guide.

KEY INFORMATION

- The updated policies (FE.G.1, FE.G.2, and FE.G.3) in Section G of the Federal Environment Element will replace FE.G.1, FE.G.2, and FE.G.3 in Section G of the 2016 Federal Environment Element.
- The 2016 Federal Environment Element policies in Section G related to tree preservation and replacement will remain in effect for 60-days after the publication of the Federal Register notice announcing the adoption of the revised Element by the Commission.
- The comments received during the public comment period primarily fall into two categories: 1) Strengthening tree preservation and protection standards, and 2) Clarifying exceptions and the information necessary to request an exception.
- The Element incorporates additional language in FE.G.1 to support tree preservation and protection, especially in areas critical to the health of the region's watersheds and sensitive ecosystems.
- A list of four deviation criterion was developed and described in detail in the Submission Guidelines. The deviation criterion lists situations where exceptions to the policies will be considered, and the information necessary for a deviation to be considered. As a result, FE.G.6 was eliminated from the policies and text with reference to the criterion in the Submission Guidelines was added to the Section G introduction.
- The proposed rate of forest replacement was revised to one acre planted for every one acre removed (1:1) with a new requirement in the Submission Guidelines for a forest management plan. This approach was developed based on discussions with the USDA-National Arboretum to ensure quality-based forest replacement.
- Modifications to the Submission Guidelines also include a new requirement for a tree preservation and replacement plan for master plans and individual project plan submissions.
- The updated Submission Guidelines will replace the 2020 Submission Guidelines, last updated in July with the Federal Transportation Element update.

RECOMMENDATION

The Commission:

Approves the final adoption of the updated Section G of the Federal Environment of the *Comprehensive Plan for the National Capital: Federal Elements* pursuant to 40 U.S.C. § 8721(a).

Approves the final adoption of the updated *Submission Guidelines* per 40 U.S.C. § 8711 (e)(2) and 8722(a).

Notes that Section G of the 2016 Federal Environment Element will remain in effect for 60-days after the publication of the Federal Register notice announcing the adoption of the revised Federal Environment Element by the Commission.

Notes following the effective date, individual projects and master plans with previous Commission action under the 2016 policies will move forward using the Section G of the 2016 Federal Environment Element, unless approval has expired.

Notes that for projects with special and unusual circumstances, applicant agencies can consult with NCPC staff to determine the applicable tree preservation and replacement policies or deviation criterion.

Notes the updated Submission Guidelines will be effective 60 days after the notice of final rulemaking is published in the Federal Register.

Notes following Commission adoption, staff will incorporate any changes as directed by the Commission and will complete minor editorial updates to the text and graphics to ensure document accuracy and consistency.

PROJECT REVIEW TIMELINE

Previous actions	1981 – Adoption of the Federal Environment Element of the Comprehensive Plan.
	2001 – Adoption of a revised Federal Environment Element of the Comprehensive Plan.
	2004 – Adoption of the update Comprehensive Plan which included the Federal Environment Element.
	2012 – Adoption of a revised Federal Environment Element of the Comprehensive Plan.
	2016 – Adoption of the updated Comprehensive Plan (with the exception of the Parks & Open Space Element), which included the Federal Environment Element.

	July 2020 – The Commission authorized release of the draft tree preservation and replacement policies in Section G of the Federal Environment Element and the Submission Guidelines for a 60-day public comment period.
Remaining actions (anticipated)	– None.

PROJECT ANALYSIS

Executive Summary

The proposed tree preservation and replacement policies in Section G of the Federal Environment Element include policies FE.G.1, FE.G.2, and FE.G.3. The three policies specifically relate to tree preservation and replacement on federal development sites. The policies have been modified and revised since the update’s draft release on July 9, 2020 in response to the comments received from individual members of the public, interest groups, local government agencies, and federal agency stakeholders. The comments received primarily focus on strengthening the tree preservation and protection policies and clarifying flexibility or exceptions within the policies. While these comments resulted in a few changes to the Element’s policies, the comments are primarily addressed through additional updates to NCPC’s Submission Guidelines.

The Submission Guidelines are being updated to support the revised tree preservation and replacement policies. The updates include a new requirement for a tree preservation and replacement plan with master plans and individual projects, a new requirement for a forest management plan when forest clearing is necessary, and a new list of deviation criterion that describe situations where an exception, or deviation, from the policies may be requested and what information is necessary to support that request. This criterion was developed similarly in format to the recent Submission Guideline updates related to the Transportation Element and parking policy deviations. A summary of the major modifications made following the draft release of the policies is included in the analysis that follows.

Analysis

Major Modification from Draft to Final Policies and Submission Guidelines

Tree Preservation

NCPC’s draft policy amendments proposed to strengthen tree preservation in several ways. First, the policies under review are now referred to as NCPC’s “Tree Preservation and Replacement Policies.” By identifying tree preservation in the front of the title, it reinforces preservation as an equally important, if not greater, priority to replacement. Second, the draft policies call for the

federal government to “preserve existing trees, especially individual trees, stands, and forests of healthy, native, or non-invasive species,” and the policies further direct applicants to “account for existing trees early in the planning and design processes when development occurs to maximize preservation and incorporate the natural landscape into the design.”

Policy FE.G.1 is stated before any mention of tree replacement to acknowledge that tree preservation should be considered before contemplating removal and replacement. Additional new procedures were also proposed in the draft for preservation of large trees where their diameter measures 31.85 inches or greater, similar to the District of Columbia’s heritage tree regulations.

Public comments on the draft encouraged NCPC to consider tree protection in concert with tree preservation and to ensure that any effort to preserve trees must also consider methods to protect trees. There are several methods used to protect trees, including protection fencing, root pruning, and root protection matting. These methods can be used in combination or alone and must always follow industry standards to ensure successful preservation. Other comments encouraged NCPC to include language that considers the preservation and protection of trees in areas determined to be critical to the health of tidal waters, tidal wetlands, and tributary streams of the Chesapeake Bay or Potomac River watersheds, and on sites with old growth forests and/or significant ecosystems. Policy FE.G.1 and FE.G.2(5) have been updated to reflect these comments (new language is double underlined):

FE.G.1 Preserve and protect existing trees, especially individual trees, stands, and forests of healthy, native or non-invasive species. Account for existing trees early in the planning and design processes when development occurs to maximize preservation and incorporate the natural landscape into the design. In addition:

1. Trees 31.85-inches in diameter (100 inches in circumference) or greater may not be removed, unless:
 - a. Removal is critical to accomplishing the mission of the agency and planning/design alternatives that would preserve such tree(s) have been explored and determined incapable of accommodating program requirements, or
 - b. The tree(s) are considered invasive, hazardous, or high risk per an Arborist’s evaluation.
2. All possible considerations should be taken to preserve and protect trees in areas determined to be critical to the health of tidal waters, tidal wetlands, and tributary streams of the Chesapeake Bay or Potomac River watersheds, and on sites with old growth forests and/or with significant ecosystems.

FE.G.2 (5) Protect tree(s) to be preserved in accordance with the most current edition of ANSI-A300¹ Part 5. Transplant, install, and maintain trees also in accordance

¹ The American National Standards Institute; ANSI-300 standards are generally accepted industry standards for tree care practices.

with the most current edition of ANSI-A300, and specify replacement trees in accordance with the most current edition of ANSI-Z60.1².

In addition, the Submission Guidelines have been modified to enhance preservation standards and practices. The Submission Guidelines for preliminary and final plans, and draft and final master plans now request a "Tree Preservation and Replacement Plan" (TPRP) with each submission. For individual projects, the TPRP will identify trees to be preserved and trees to be removed, describe the tree preservation and replacement strategy, identify preservation areas and areas for replanting, describe methods used to protect trees, and the approach to replace trees that are removed (e.g. afforestation, reforestation, individual tree replacement, etc.). For master plans, the Submission Guidelines request that the TPRP include stated goals for tree preservation and replacement; a firm commitment to strategies that maximize tree preservation and to replace those that are removed; identification of any known critical habitat areas or old growth forests; identification of preservation areas and areas for replanting; a description of the trees to be removed; and a description of the methods used to replace trees.

The Submission Guidelines require that the TPRP is submitted initially at the preliminary plan stage for individual projects and with the draft master plan for master plan projects. These two stages are early in the planning process where opportunities to maximize tree preservation are greater. Preparation and review of a TPRP at these stages will ensure that applicants and staff have a strategy in place that carefully considers tree preservation and replacement prior to significant investment in more advanced stages of the project or master plan.

Deviations

Other comments received recommended that NCPC clarify and better define the exceptions criterion and process. Policy FE.G.6 in the draft proposed that applicants may offset the balance of replacement trees required with other sustainable practices if the total quantity of replacement trees cannot be provided, as long as other sustainable practices provide similar benefits as those provided by trees. These could include reducing the urban heat island effect, carbon sequestration, and capturing stormwater runoff. The open-ended nature of the proposed exception in FE.G.6 initiated several comments from advocacy groups and federal agencies.

Advocacy group comments related to the exceptions process were primarily concerned with ensuring that the benefits provided by the alternative sustainable practices are at least equal to those provided by trees. Federal agency comments requested additional clarity on those sustainable practices, and a defined set of criteria to ensure consistent direction for agencies and NCPC staff to follow when an exception is requested. Additionally, federal agencies highlighted the need for flexibility on cultural landscape project sites and those located in the Monumental Core.

² The American Standard for Nursery Stock as produced by American Horticulture Industry Association (formerly American Nursery & Landscape Association) accredited by the American National Standards Institute; ANSI-Z60.1 is a standardized system of sizing and describing plants to facilitate trade in nursery stock.

For example, the restoration of a cultural landscape may require removal of trees to return it to its original historic character, and the addition of new trees or other sustainable practices on that site may not be appropriate. In addition, projects in the monumental core often face constraints such as limited site areas, shallow below-grade infrastructure, and minimal options for off-site planting. The comments further highlighted that projects in the Monumental Core will often plant fewer large caliper trees rather than several small trees as a design feature for a more “monumental” impact or to support the design narrative, such as in commemorative works projects.

NCPC staff recognized that the level of detail necessary to address these comments and concerns is better suited for the Submission Guidelines. Therefore, FE.G.6 has been removed from the policies and the introduction to Section G has been updated to acknowledge that there is some uncertainty inherent in tree preservation and replacement, and refers to a list of four deviation criterion developed in the Submission Guidelines that provide a clear and predictable process for requesting and allowing deviations from the tree preservation and replacement policies.

A summary of the four deviation criterion in the Submission Guidelines is provided below:

- Criterion 1:

This criterion addresses circumstances where a project does not have the physical space on the project site or on another site within the agency’s jurisdiction to plant the total number of replacement trees or replacement forest acreage required. Applicants must first demonstrate that all options to replant the total number of replacement trees are exhausted in coordination with NCPC staff through the standard plan review process before applying this deviation.

In this case, the criterion allows applicants to offset the balance of replacement trees with one or more Low Impact Development (LID) practices on the project site or property. The LID practices proposed under this criterion must be in addition to those necessary with other policies or regulations, such as those related to stormwater. The criterion provides a list of LID practices that the project may choose from to implement. This list directly corresponds with the District’s Green Area Ratio (GAR) Landscape Elements that are used to meet GAR regulations. Examples include bioretention, new plantings (such as shrubs, perennials, etc.), vegetated walls, tree preservation, vegetated roofs, permeable paving, etc.

Documentation with metrics that demonstrate how the LID practice(s) selected will equate to at least one of the environmental benefit(s) lost by the tree(s) not planted must be provided with the preliminary plan. For example, if a project is required to plant 15 trees and can only plant 10 trees, the applicant may opt use permeable paving on the project site instead of planting the remaining five trees. Similar to trees, permeable paving captures stormwater runoff and enhances infiltration capacity that contributes to groundwater recharge. To satisfy this criterion, the applicant must provide metrics that demonstrate the amount of stormwater runoff captured by the permeable paving equates to the amount of stormwater runoff that the five replacement trees would have captured annually.

The Resource Guide includes links to tree benefit calculators and tools that can be used to quantify the stormwater, energy, air quality, and carbon dioxide benefits of trees based on their location, size, condition, sun exposure, and age. Criterion 1 indicates that large canopy tree species sized at maturity in good condition must be used for the purposes of calculating the environmental benefit(s) of the remaining replacement trees. Further, the location and sun exposure factors should be consistent with project site conditions. To quantify the benefit(s) provided by the selected LID practice(s), applicants may utilize online tools such as the EPA National Stormwater Calculator, or consult with the project engineer or sustainability subject matter experts depending on the alternative LID practice selected and project circumstances.

- Criterion 2:

Criterion 2 provides flexibility for ecological restoration or management projects (e.g.; stream restoration, forest management) where tree removal is necessary to implement the restoration or management of a natural resource. A comprehensive re-vegetation plan, which may include natural regeneration, is included in the restoration project and the impacted or disturbed area is restored to an equal or improved ecological structure and function. A narrative that describes the ecological benefit provided and demonstrates that the functions are equal to, or greater than, the prior conditions is provided.

- Criterion 3:

Criterion 3 addresses challenges faced when the proposed project is a restoration of a cultural landscape that requires removal of existing tree(s) and vegetation to return it to its original historic character where the addition of new trees or LID practices on the site is not appropriate. The restoration plan includes trees and other vegetation in the appropriate places and quantities to serve the environmental and cultural landscape function of that site, such as forest canopy, floodplain, historic landscapes, etc.

- Criterion 4:

This criterion provides flexibility to projects located in the Monumental Core where there is limited space available for planting or additional LID practices on the project site or on nearby sites within the agency's jurisdiction. The proposed plan maximizes tree preservation and planting to the extent practical, and installs larger caliper trees, in lieu of a higher quantity of small trees, where appropriate.

Similar to the Transportation Element and parking policy deviation criterion, deviations from NCPC's tree preservation and replacement policies will not be considered at the master plan level and may only be considered for individual projects. Master plans are intended to be long-term documents that consider a 20-year planning horizon and applicants can seek relief from the tree preservation and replacement policies for individual projects since it is a point in time to consider current conditions. At this point, the conditions would be factored in as they relate to the proposed project to inform potential deviation from the policies. Accordingly, staff does not believe it is

appropriate to grant deviations from the established tree preservation and replacement policies for a project at the master plan level.

Forest Replacement Ratio

Stands of trees and forests provide unique value to the National Capital Region and are a priority to maintain for their benefits to wildlife; air, water, and soil quality; and their recreational, visual, and health benefits to the surrounding community. The scale of replacing mature forests is focused on the values currently placed on them and to that notion, when forests are removed more forest replanting is better. While there is almost no mechanism to make up for removal of mature forests in the immediate time frame, reforestation will ultimately yield those same benefits in the long-term provided that the new forest is preserved. As such, the draft policy recommended a ratio of one and a half acres planted for every one acre of tree stands or forest removed (1.5:1), which is an increase from the 2016 Element policy of one acre planted for every one acre removed (1:1).

Following the draft release, staff consulted with federal and local agency stakeholders including those with the Department of Defense, the National Park Service, and the USDA-National Arboretum regarding the proposed forest replacement ratio in the draft. Notably, conversations with USDA-National Arboretum suggested that a quality-based approach to replanting forests would provide more practicability and value than a purely quantity-based formula.

As the draft policy proposed, one and a half acres replanted for every one acre of forest removed means that at some point in the future, there will be no more available land to reforest in the region as there will be a total increase in the acreage of forests and an increased total acreage of mature forests over time. Therefore, a policy that ultimately increases forest cover in the region may ultimately limit future development which may not be practical assuming that the areas reforested are preserved long-term; or it may lead to development in the future removing forests that are planted today without any remaining space to reforest. Further, a single focus on increasing reforestation does not consider the need for available land for other types of habitat that are just as valuable considering the importance of diversity and ecosystem functions. For instance, the National Arboretum could plant their 140 acres of meadows with trees and contribute more towards meeting the District's tree canopy goals; however, the significant benefits of meadows, a rare habitat in the District and home to a variety of wildlife, would be lost.

As a result of these discussions, a ratio of one acre of forest replanted for every one acre lost (1:1) with a focus on improving success rates of reforestation is thought to be more effective. Therefore, policy FE.G.2(c) and the Submission Guidelines have been revised to reflect this ratio and approach. Policy FE.G.2(c) now reads:

FE.G.2(c) Forests and Stands of Trees: Plant ~~1.5~~ acres for every 1 acre removed. Consult with federal and local stakeholders to determine the appropriate density, mixture, and size of replacement plantings.

The Submission Guidelines now request a forest management plan prepared by a licensed forester with the final master plan and the final individual project plan submissions. If an individual project

is part of a master plan, the project should describe how it will comply with the master plan's forest management plan. The forest management plan must describe the initial planting procedures and the year-by-year maintenance procedures that will be implemented for a minimum of five years following the initial forest planting to ensure the forest's successful establishment, preservation, and longevity.

CONFORMANCE TO EXISTING PLANS, POLICIES AND RELATED GUIDANCE

Comprehensive Plan for the National Capital

The updates to the Federal Elements of the Comprehensive Plan are provided in accordance with the provisions of the preparation and adoption of Federal Elements of the Comprehensive Plan specified at 40 U.S.C. § 8721. The Submission Guidelines are necessary for evaluating development within the National Capital Region for consistency with the policies set forth in the Federal Elements of the Comprehensive Plan. The proposed revisions to the Guidelines are consistent with the revised Federal Environment Element currently under consideration.

National Historic Preservation Act

This proposal does not sustain characteristics as a federal undertaking. The proposal of policy revision does not implement, contract, or take other actions that would preclude consideration of the full range of alternatives to avoid or minimize harm to federal historic properties. Consequently, the proposed action does not require review pursuant to the National Historic Preservation Act, Section 106 process.

National Environmental Policy Act

Staff reviewed the proposal in accordance with NCPC's implementation of the National Environmental Policy Act and determined that the updates to Section G of the Federal Element can be categorically excluded from further environmental analysis and documentation. The action is determined by the staff to qualify as NCPC's Categorical Exclusion: (4) Adoption of a Federal Element of the Comprehensive Plan or amendment thereto or broad-based policy or feasibility plans prepared and adopted by the Commission in response to the Comprehensive Plan. NCPC has an obligation to satisfy the National Environmental Policy Act (NEPA) when approving projects. NEPA procedures are coordinated through the Submission Guidelines and the project review process. As such, changes to the Guidelines do not require NEPA review.

CONSULTATION

Following closure of the public comment period, NCPC staff consulted with staff representatives at the UDSA-National Arboretum and the U.S. Department of Defense, and presented a summary of the changes at its monthly Coordinating Committee meeting which consisted of representatives from the National Park Service, General Services Administration, the Washington Metropolitan Area Transit Authority, the District Department of Energy and the Environment, the District

Department of Transportation, and the District Department of Planning. These conversations were held to ensure that the primary applicant agencies affected by the policies were coordinated and to best understand limitations on varied federal facilities. These additional conversations primarily helped to shape the deviation criterion in the Submission Guidelines and the approach to forest replacement when clearing of forests and large stands of trees is necessary.

ONLINE REFERENCE

The following supporting documents for this project are available online at www.ncpc.gov:

- Appendix A: Section G of the Federal Environment Element (final for adoption)
- Appendix B: NCPC's Submission Guidelines (final for adoption)
- Appendix B1: Redline version of NCPC's Submission Guidelines
- Appendix C: Compiled comments received
- Appendix C1: Staff responses to the comments received
- Appendix D: Resource Guide (final)

Prepared by Stephanie Free
10/14/2020

POWERPOINT (ATTACHED)