Alexis Goggans

Attn.: Climate Ready DC Plan Public Comment District Department of Energy and Environment 1200 First St NE, Washington, DC 20002 September 1, 2016

Re: Comments on the Draft Climate Ready DC Plan

Dear Alexis Goggans,

Casey Trees is a Washington DC-based nonprofit with a mission "to restore, enhance and protect the tree canopy of the nation's capital." To fulfill this mission, we plant trees; monitor the city's tree canopy; and work with elected officials, planners, and residents to prioritize the District's trees and plant trees on both public and private property. We are dedicated to helping the District meet its 40 percent tree canopy goal by 2032 – an achievable goal only if existing trees are protected and the District adopts policies that grow the city's urban forest.

We recognize the importance of the Climate Ready DC Plan as the District prepares to face heavy rainfall and flooding, extreme temperatures, and rising sea levels in the coming decades. With these comments, we hope to call to attention the many ways trees offer a natural solution to these threats.

The District Department of Energy and Environment has an opportunity to include tree planting and tree protection as mitigation tools in the Climate Ready DC Plan. In doing so, the District will be better prepared to face a changing climate and reach the mayor's 40% tree canopy goal by 2032. Integrating the below recommendations into the Plan's adaptation strategies will ensure DC becomes more resilient and "continues to grow greener, healthier, and more livable."

Transportation & Utilities

TU 3.0: Increase resilience of drinking water, wastewater, and stormwater systems.

Rain gardens are mentioned multiple times throughout the plan as a technique for managing excess stormwater runoff from heavy rainfall. Any bioretention areas should include waterloving trees to increase uptake and filtration, reduce demand on treatment plants, and lower the frequency of polluting overflows. We recommend amending action TU 3.0 to include planting appropriate trees in all rain gardens. Casey Trees Urban Tree Selection Guide may be consulted to select trees that perform best in bioretention areas.

 TU 5.3: Update design standards for roads and transit infrastructure to account for projected extreme temperatures and extreme precipitation events.

Street trees shade pavement and intercept rainfall, making streets more pedestrian friendly and reducing the volume of stormwater entering treatment plants and DC's waterways. Amend sub-



action TU 5.3 to include "Ensure all street tree boxes are filled and that large shade trees are planted in tree boxes where possible."

Buildings & Development

• BD 7.0: Improve thermal safety + indoor building temperatures to increase resilience to extreme heat, especially in the event of a power outage.

Large trees shade buildings, reduce overall energy use, and cut cooling costs. Trees also help to reduce the urban heat island effect and keep building temperatures low during power outages. To further improve thermal safety and increase passive cooling, include tree planting and tree protection as urban heat island mitigation measures under sub-action BD 7.3. In addition, add action items including "Ensure all street tree boxes are filled and that large shade trees are planted in tree boxes where possible," and "Large trees should be planted at all new development sites, including public housing, to lower indoor building temperatures and reduce demand on energy systems."

BD 9.1: Develop climate resilience guidelines for new development projects.

Amend this sub-action to read "Develop climate resilience guidelines for new development projects. Include tree canopy goals in these guidelines to manage stormwater and shade new developments."

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

Include riverbank tree planting and tree-filled rain gardens as incentivized flood resiliency measures. Tree roots stabilize riverbanks and prevent erosion from storm surges, while trees in rain gardens intercept and absorb excess rainwater.

Neighborhoods & Communities

 NC 13.2: Reduce the heat-island effect and related increases in outside air temperatures with cool and living roofs, expanded green space and tree cover, prioritizing hotspots and those areas with the greatest number of heat vulnerable residents..."

Trees are an essential tool for reducing the heat-island effect. Planting large shade trees in all green spaces will offer the largest reduction in outside air temperatures. Change this sub-action to "Reduce the heat-island effect and related increases in outside air temperatures with cool and living roofs; expanded tree planting and tree protection efforts; prioritizing hotspots and those areas with the greatest number of heat vulnerable residents..."



• NC 14.4: ...Provide green space that supports community activities and serves as a rain garden to capture slow precipitation runoff...

Amend the third sentence of this sub-action to read "Provide **tree covered** green space that supports community activities and serves as a rain garden to capture slow precipitation runoff."

Governance & Implementation

 GI 17.0: Align Climate Ready DC with related planning efforts including hazard mitigation, comprehensive land-use, comprehensive energy, and capital budget planning

Add a sub-action that reads "Add resilience as a benefit of achieving the Sustainable DC Plan's 40% tree canopy goal (Action 2.1)."

• GI 18.0: Establish the necessary structures to ensure successful implementation of Climate Ready DC.

Add a sub-action such as "Ensure public tree planting efforts by the District Department of Transportation's Urban Forestry Administration and residential tree planting efforts by the District Department of Energy and Environment are fully funded to allow the maximum amount of tree planting."

Thank you for the opportunity to comment. Casey Trees would be happy to work with you to provide tree-related analyses or information for the Climate Ready DC Plan. If you have any questions about these recommendations, please feel free to contact me at ktaddei@caseytrees.org.

Sincerely,

Kristin Taddei

Kustin D. Jaddei

