



City of Seattle
Urban Forestry Commission

Weston Brinkley (Position #3 – University), Chair
Sarah Rehder (Position #4 – Hydrologist), Vice-chair
Julia Michalak (Position #1 – Wildlife Biologist) • **Elby Jones** (Position #2 – Urban Ecologist - ISA)
Stuart Niven (Position #5 – Arborist – ISA) • **Michael Walton** (Position #6 – Landscape Architect – ISA)
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Jessica Hernandez (Position #11 – Environmental Justice) • **Jessica Jones** (Position # 12 – Public Health)
Shari Selch (Position # 13 – Community/Neighborhood)

August 4, 2021.

Mami Hara
Seattle Public Utilities
700 5th Ave
Seattle, WA 98124

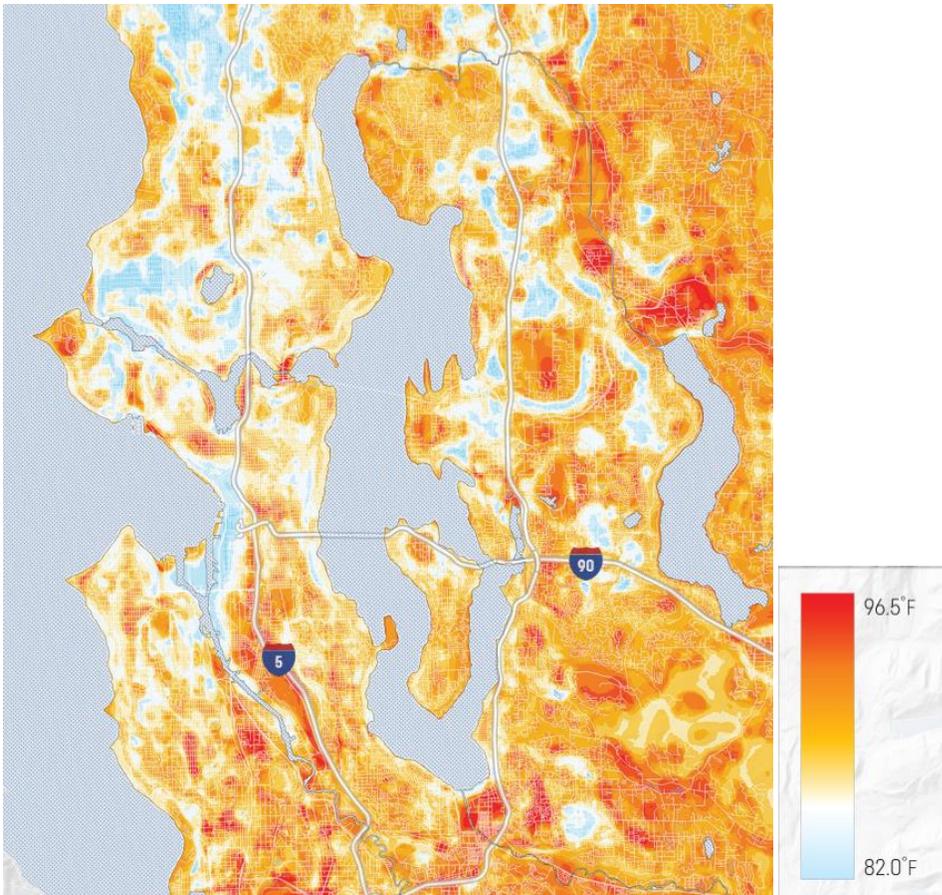
Dear Mami,

The UFC would like to thank Jana Dilley for her July presentation, Urban Heat Islands. We found it timely and effective at presenting the dire challenge we face when it comes to trees and heat.

Best estimates are currently attributing hundreds of deaths across our region this summer to excess heat. As the presentation laid out, we know that there are huge inequities in these deaths, with heat disproportionately impacting: communities of color, older adults, very young children, people who work outdoors, unhoused individuals, and people with chronic medical conditions. The UFC also highlights the value of trees and vegetation identified in this work as a solution to this crisis.

The UFC applauds the City's efforts working with King County on the 2020 Heat Mapping study. The 23-degree F temperature differential measured between central Seattle and outlying forested areas was shocking, but not at all out of line from what we have seen in other studies where temperature decreases of around 2.5 degrees for every 10% increase in green space coverage has become a basic rule of thumbⁱ.

ⁱ Wu, Zhijie and Zhang, Yixin 2018. Spatial Variation of Urban Thermal Environment and Its Relation to Green Space Patterns: Implication to Sustainable Landscape Planning. Sustainability 2018, 10, 2249; doi:10.3390/su10072249



Afternoon Temperaturesⁱⁱ

Temperatures in our region have made headline news locally, and nationally in outlets such as the New York Times. And so has the value of trees as “quite simply, the most effective strategy, technology, we have to guard against heat in cities,”ⁱⁱⁱ When one considers the cost benefit ratio, this value of trees becomes even more apparent.

Carefully positioned trees can reduce a home’s energy costs by 25 percent, according to the Department of Energy^{iv}, and the U.S. Forest Service estimates that net cooling effect of a young healthy tree is equivalent to ten room-size air conditioners operating 20 hours a day.^v

The best estimate available for Seattle is that our declining tree canopy saved an estimated 1.6 million British thermal units (MBTU) of natural gas and 43,000 megawatt-hours (MWh) of electricity in 2012 from residential heating and cooling alone.^{vi}

ⁱⁱ CAPA Strategies, LLC. Seattle and King County, WA. Heat Watch Report. <https://your.kingcounty.gov/dnrp/climate/documents/2021-summary-report-heat-watch-seattle-king-county.pdf> Summer 2020.

ⁱⁱⁱ <https://www.nytimes.com/2021/07/02/climate/trees-cities-heat-waves.html>

^{iv} <https://www.energy.gov/energysaver/design/landscaping-energy-efficient-homes>

^v <https://www.fs.usda.gov/detail/r9/home/?cid=stelprd3832558>

^{vi} <https://www.researchgate.net/publication/322900878> Seattle's Forest Ecosystem Values Analysis of Structure Function and Economic Benefits

We have known for years this critical cooling benefit that trees provide to our city. Yet, even along with the other benefits such as carbon sequestration (trees uniquely both reduce climate change and help us mitigate the impacts of it), stormwater runoff, air pollution removal, mental health, and local economic gains, we have continued to dramatically undervalue them. We have worse tree protections, less tree funding, and non-existent tree tracking and data compared to even average urban forestry programs nationally, and we don't have a cohesive plan for how we will connect our canopy goals to existing planting efforts.

With the severity of the heat island effects, the UFC recommends the City develop a comprehensive action plan for tree planting in the city with tangible annual goals to ensure that we meet or exceed the citywide tree canopy goal of 30%, or aspirationally 40%, and the land-use specific canopy targets. The city should also consider expanding canopy goals to include neighborhood equity, and evaluating and implementing canopy coverage approaches that are best able to mitigate heat island impacts.

While the SPU presentation focused on planting new trees as a critical strategy in dealing with climate change, we also need to focus on preserving the trees we have. Existing trees are much larger and more likely to survive than new trees, providing more benefits today and into the future. We need to protect the trees we have in addition to growing new ones.

The UFC, yet again, strongly urges immediate action from Mayor, Council, and Department Directors on Executive Order 2017-11 (5 years in progress), Council Resolution 31902 (3 years in progress), Draft Directors Rule 2020-13 (2+ years in progress) and revising SMC 25.11 (12 years in progress). Please act.

Sincerely,

A handwritten signature in black ink on a light-colored background. The signature is stylized and appears to read 'Weston Brinkley'.

Weston Brinkley, Chair

cc: Mayor Jenny A. Durkan, Council President Lorena González, CM Lisa Herbold, CM Debora Juarez, CM Andrew Lewis, CM Tammy Morales, CM Teresa Mosqueda, CM Alex Pedersen, CM Kshama Sawant, CM Dan Strauss, Michelle Caulfield, Sharon Lerman, Urban Forestry Management Team, Urban Forestry Core Team, Jana Dilley, Chase Kitchen, Christina Ghan, Yolanda Ho

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