

COUNCIL MEMBERS' MOTION

4. Increasing Vancouver's Tree Canopy for a Safer, Healthier City

Submitted by: Councillors Boyle and Carr

WHEREAS

1. Urban tree canopy improves air quality and reduces the impacts of heat events, making life safer and healthier for nearby residents. Extensive research in our region and abroad has demonstrated that increased shade trees and vegetation has protective impacts in extreme heat events¹ resulting in fewer hospitalizations where increased canopy cover is present² alongside other ecological, social and economic benefits including sequestering carbon, supporting biodiversity and ecosystem health, mitigating more frequent and extreme rainfall events, generating higher property values and supporting better mental and physical health of residents.³
2. Vancouver Coastal Health's report on the 2021 Heat Dome notes that Vancouver was the British Columbia city with the highest number (117) of heat-related deaths, with a factor being "the absence of tree canopy and other green space to provide protective cooling". The report includes a recommendation to "Create cooler outdoor urban environments" by identifying "nature-based solutions to cool urban areas."⁴
3. The BC Coroner's Service Heat Dome report also notes that the populations living in the least materially and socially advantaged neighbourhoods, which often include urban heat islands lacking protective features such as green spaces and shade trees, were disproportionately affected and more vulnerable to extreme heat.⁵

¹ Vancouver Coastal Health, *Protecting Population Health in Climate Emergency*, 2023. 18 <https://www.vch.ca/sites/default/files/2024-02/vch-climate-change-health-report.pdf>

² X. Feng, et. Al, "Show me the money! Associations between tree canopy and hospital costs in cities for cardiovascular disease events in a longitudinal cohort study of 110,134 participants", *Environment International* (2024) 108558, <https://doi.org/10.1016/j.envint.2024.108558>

³ C. S. Green, et. Al. "Canopy of advantage: Who benefits most from city trees?," *Journal of Environmental Management* (2018): 24-35, <https://pubmed.ncbi.nlm.nih.gov/29247882/>

⁴ Vancouver Coastal Health, *Protecting Population Health in Climate Emergency*, 15.

⁵ BC. Coroners Service, *Extreme Heat and Human Mortality: A Review of Heat-Related Deaths in B.C. in Summer 2021*. 2022. 5 https://www2.gov.bc.ca/assets/gov/birth-adoption-death-marriage-and-divorce/deaths/coroners-service/death-review-panel/extreme_heat_death_review_panel_report.pdf

4. A newly released report on regional tree canopy by Metro Vancouver notes the significant discrepancy⁶ between tree canopy cover in Vancouver's west side neighbourhoods compared to south and east side neighbourhoods,⁷ leaving these neighbourhoods more exposed to the effects of extreme heat.⁸ This highlights the need to address the urban tree canopy as a matter of equity, health and safety for all Vancouver residents.
5. The tree canopy throughout the city is at risk due to extreme weather and drought, as well as the dominance of short-lived tree species such as cherries, and because 45% of the trees are on private lands at risk of being cut for new development.⁹
6. A key recommendation of the BC Coroner's Heat Dome Report is to map neighbourhoods that are deficient in tree canopy:

*Mapping geographic areas through census data and the social and material deprivation indexes could also help identify neighbourhoods where access to cooling areas in parks is limited and/or little green space or tree canopy exists. This could help communities prioritise where green space is needed and where parks should be developed with shade and accessibility in mind.*¹⁰

7. Vancouver's Greenest City Action Plan, launched in 2011, included the goal to plant 150,000 additional trees by 2020. In late 2020, the Vancouver Park Board approved a strategy of planting tens of thousands of additional trees on city streets, parks, and other public spaces over the coming decades, with the goal of growing the tree canopy from 23% in 2020 to 30% by 2050.¹¹
8. Planting trees at younger ages, if they are well watered and cared for, improves the overall health and longevity of the tree and will contribute to an increase in species diversity in our urban forest. In a changing climate with increasing extreme heat and weather events, planting climate resilient trees improves their longevity and therefore their positive impact.¹²

⁶ MetroVancouver, 2020 Regional Tree Canopy Cover and Impervious Surface: In Metro Vancouver, 2024. <https://metrovancover.org/services/regional-planning/Documents/regional-tree-canopy-cover-impervious-surface-2020.pdf>

⁷ City of Vancouver and Vancouver Park Board, Urban Forest Strategy 2018 Update. 2018. 11.

⁸ Nature Canada, Canada's Urban Forests: Bringing the Canopy to All. 2022. 20-21. <https://naturecanada.ca/wp-content/uploads/2022/09/Nature-Canada-Report-Tree-Equity.pdf>

⁹ City of Vancouver and Vancouver Park Board, *Urban Forest Strategy 2018 update*. 2018. 11. <https://parkboardmeetings.vancouver.ca/files/STRATEGY-UrbanForestStrategy-20180430.pdf>

¹⁰ BC. Coroners Service, *Extreme Heat and Human Mortality*. 2022. 27

¹¹ <https://dailyhive.com/vancouver/vancouver-urban-forest-tree-canopy-2020-target>

¹² Hannah Jaenike, Good Tree Nursery Practices: Practical Guidelines for Research Nurseries. (Nairobi: International Centre for Research in Agroforestry, 15-16 https://apps.worldagroforestry.org/Units/Library/Books/PDFs/17_Good_tree_nursery_practices.pdf?n=44

9. Retaining larger trees also better maintains the tree canopy and carbon sequestration value of our urban forest.
10. As the city adds more housing and welcomes more people in neighbourhoods across Vancouver, as permitted by new provincial legislation and city-wide zoning changes, retaining existing mature trees, replacing lost trees and adding new climate-resilient street and park trees becomes even more important and beneficial for residents now and into the future.
11. In the 2022 municipal election, ABC Vancouver promised to plant 100,000 new additional trees across Vancouver in their first four years in office, specifically in areas that have fewer trees.¹³
12. The Green Municipal Fund (GMF) *Growing Canada's Community Canopies* (GCCC) is a \$291 million initiative that will support planting at least 1.2 million trees across the country by addressing common barriers local governments and communities face when pursuing tree canopy expansion projects, including insufficient staff capacity, gaps in knowledge, and financing. The fund supports planting the right type of trees in the right places so that communities of all sizes can grow, manage, and protect their tree canopies.¹⁴

THEREFORE BE IT RESOLVED

- A. THAT Council direct City of Vancouver staff to report back to City Council with a plan, timeline and required operating and capital budget to plant 100,000 new trees across Vancouver – using both native and climate-resilient trees – in areas with lower tree canopy and areas where residents are at higher risk during heat events¹⁵.

FURTHER THAT this update to Vancouver's tree canopy and urban forest strategies, and required funding requests, be brought back to Council no later than Q4 2024.

- B. THAT Council direct staff to explore and report back on possible by-law amendments to the tree-replacement strategy that prioritizes retaining larger, healthy trees where possible and emphasizes climate resilience in the species and sizes of new trees being planted.

¹³ABC Vancouver, "ABC Vancouver commits to planting 100,000 new trees during first term in office" News Release, August 22, 2022, <https://abcvancouver.ca/2022/08/abc-vancouver-commits-to-planting-100000-new-trees-during-first-term-in-office/>

¹⁴ A first round of GCCC funding is currently available until July 12, 2024 for the Spring 2025 planting season for up to 50% of eligible costs and up to a maximum of \$10 million in GCCC project funding. More info at <https://greenmunicipalfund.ca/growing-canadas-community-canopies>

¹⁵ Example initiative: https://www.instagram.com/p/C5Gsdrrsllj/?igsh=Nm9sbNvVajBoanZ0&img_index=1

- C. THAT Council affirm their support, and commit to ensure implementation of, recent Park Board direction to re-establish the city's urban forestry programs including:
- a. Providing climate resilient trees for sale at a reduced cost to residents to plant on private property in the city.
 - b. An "adopt a street tree" program similar to the "adopt a catch basin" program, for residents to volunteer to water and care for trees on city lands, particularly younger and newly planted trees most at risk during increased extreme weather events.

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