VANCOUVER BOARD OF PARKS AND RECREATION

Low-intensity Turf Maintenance for Increased Financial and Ecological Resilience

Excerpted from Minutes 2021-03-09 & 10

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MOVED by Commissioner Demers
SECONDED by Commissioner Dumont

WHEREAS:

1. Park Board maintains over 1,360 hectares of parks and open space, of which approximately 470 hectares are classified as 'turf surfaces'. The main types of turf surfaces in the 2015 inventory are high-use, irrigated turf on soil or sand (approx. 100 hectares); high use, non-irrigated turf (484 hectares); non-irrigated with limited or no mowing (approx. 300 hectares); and about 1 hectare of meadow (mowed high, irregularly).

2. As a response to the budget shortfalls and hiring freeze the COVID-19 pandemic engendered, Park Board staff deferred the mowing on certain turf areas of lesser use for some of the 2020 growing season. The continuation of this pilot is being coordinated for 2021.

3. A recent meta-analysis of research conducted in Europe and North America provides aggregated evidence that intense lawn management practices are responsible for consistent and distinct cumulative effects on different facets of urban ecology. Of the negative effects to be noted are the increase of pest species, and diminished abundance and diversity of invertebrates and flora, which provide critical nesting habitat and food sources for birds and their young.

4. A peer-reviewed meta-analysis published in the journal Biological Conservation in 2018 found that 40% of insect species are declining and a third may be endangered. The total mass of insects is falling by an alarming 2.5% per year. This decline in insects limits the food source for insectivore bird populations in parks.

5. The cost of maintaining a turf area is directly proportional to the frequency and complexity of mowing it. To this, costs for irrigation, fertilizing and renovation may be redirected to resource low mow areas maintenance. Furthermore, the 2-stroke and 4-stroke engines that power the required maintenance equipment result in considerable noise, greenhouse gas emissions and other types of pollution.

6. An economic case study of the maintenance costs of City-owned turf assets in Trois-Rivières, Canada, suggests that cost savings of 36% may be possible with a modest reduction of mowing frequency. This study included costs of workers' salaries, equipment and fuel, but did not include fertilizers or pesticides, nor any indirect economic benefits such as increase pollination, carbon sequestration, etc.

7. VanPlay, the Parks and Recreation Services Master Plan, recommends increasing the proportion of naturalized areas in the parks system and to expand the variety of ecosystems in all park typologies to improve biodiversity, increase connectivity, and increase access to nature throughout the city, with a focus on Initiative Zones.

8. VanPlay also recommends a review of Parks Operations in order to mitigate, and make it more resilient to, the impacts of climate change by planning park considering future trends, managing current challenges, increasing efficiency, being more sustainable and ensuring appropriate funding.

9. Vancouver City Council approved an update to the Green Operations Plan (2020) which identifies opportunities to reduce fleet emissions, and increase air quality through operational and equipment changes. It also sets targets to increase naturally managed areas in parks, including low mow meadow areas, by 2-3 ha annually.

10. The updated Vancouver Bird Strategy (2020) identifies protecting and restoring habitat as a key opportunity to being a bird friendly city. Further, it recommends applying and integrating bird friendly practices into daily operations and maintenance work to increase habitat and naturalized areas in parks.

THEREFORE BE IT RESOLVED:

A. THAT the Vancouver Park Board direct staff to establish incremental targets and develop an implementation plan, including any new equipment required, to defer and/or alter mowing regimes on appropriate turf surfaces maintained by Park Board staff, with consideration to park typologies and usage intensity;

B. THAT the current temporary changes in mowing practices (COVID-19-related pilot) be tracked and documented as to quantify and qualify their effect on biodiversity, ecological benefits, operational efficiency/diversification, emission comparability, and financial sustainability; and

C. FURTHER that staff to report back to the Board with their findings.

CARRIED

(Commissioners Barker and Coupar opposed)