

THE CORPORATION OF THE  
**CITY OF WHITE ROCK**  
CORPORATE REPORT



**DATE:** January 27, 2025

**TO:** Mayor and Council

**FROM:** Jim Gordon, P.Eng., Director of Engineering and Municipal Operations

**SUBJECT:** Reducing Emissions: Transition to Battery Electric Equipment in City Parks

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**RECOMMENDATION**

THAT Council receive the January 27, 2025, Corporate Report from the Director of Engineering and Municipal Operations, titled “Reducing Emissions: Transition to Battery Electric Equipment in City Parks” and endorse continuing conversion from gas to electric powered landscape equipment.

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**EXECUTIVE SUMMARY**

This Corporate Report is intended to inform Council about the successful transition of the Parks Division to using 100% battery electric blowers and to discuss progress with further electrical conversions in White Rock and Metro Vancouver.

**PREVIOUS COUNCIL DIRECTION**

<b>Motion # &amp; Meeting Date</b>	<b>Motion Details</b>
2022-047 February 7, 2022	THAT Council direct staff to bring forward a corporate report on: <ul style="list-style-type: none"><li>• How the City can phase out and transition personal and commercial use of gasoline-powered landscaping equipment by 2024. The basis of the report will be the City of Vancouver’s Member Motion B.4 and include the negative effect of these tools on health.</li></ul>
2022-207 May 9, 2022	THAT Council refer staff to bring forward a corporate report: <ul style="list-style-type: none"><li>• Implement policies and practices that will phase out the City’s use of equipment that use fossil fuels where there are effective non-fossil fueled alternatives.</li></ul>
2023-463 December 11, 2023	THAT Council adopt the agenda for its regular meeting scheduled for December 11, 2023 as amended to: <ul style="list-style-type: none"><li>• Remove the motion regarding a ban for gas powered leaf blowers, Item 12.1.b.</li></ul>

## **INTRODUCTION**

The objective of this Corporate Report is to inform Council about the successful transition of the Parks Division to using 100% battery electric blowers, as well as to address previous council directives related to the conversion from gas to electric powered landscape equipment.

## **BACKGROUND**

Small gas-powered equipment used in landscape maintenance emits noise and air pollution. Gas-powered backpack blowers are particularly harmful. Research shows that the noise from these blowers can exceed World Health Organization standards even at 800 feet, causing annoyance, stress, and potential cardiovascular issues. This equipment also emits harmful pollutants such as volatile organic compounds (VOCs) and nitrogen oxides (Nox).

By switching to 100% battery electric blowers, the Parks Division has significantly reduced emissions and noise pollution. Currently, 43% of its' small equipment inventory is battery electric, with another 26% potential as equipment is replaced. See Appendix A for graphical data.

The Public Works Division is currently evaluating small battery electric equipment alternatives as their existing equipment approaches the end of its operational life. Presently, electric technology may have certain limitations in this heavier operational area regarding battery longevity, power output, and ergonomic factors.

### **Vancouver and Metro Vancouver**

In 2022, Vancouver City Council set a goal to phase out gasoline-powered equipment by 2024. However, due to challenges with electric equipment for commercial use, such as limited battery life and charging infrastructure, staff recommended against banning gas-powered tools. Instead, they proposed a regional approach to reducing emissions and awaiting Metro Vancouver's updates on regional strategies.

Metro Vancouver is developing a regional strategy to transition from small gas-powered equipment to emission-free alternatives, aiming to reduce air pollution and protect public health. They are consulting with stakeholders to create an effective plan. A proposed strategy is expected sometime this year, with further details to be shared with Council once refined.

## **FINANCIAL IMPLICATIONS**

Battery electric commercial landscape equipment is initially more expensive than gas-powered options. However, battery technology advancements have narrowed this gap and are expected to continue doing so. Current charging infrastructure supports charging for small equipment; however, budgets may need to be allocated for upgrades as more gas-powered tools are replaced.

## **CLIMATE CHANGE IMPLICATIONS**

Gas-powered landscape equipment releases pollutants such as carbon dioxide (CO<sub>2</sub>), volatile organic compounds (VOCs), and nitrogen oxides (NO<sub>x</sub>), which contribute to greenhouse gas emissions and air pollution. Transitioning to battery electric equipment can reduce direct emissions and the overall carbon footprint of landscape maintenance activities, potentially affecting climate change and air quality.

## **ALIGNMENT WITH STRATEGIC PRIORITIES**

The transition to battery electric landscape equipment aligns with the City's Strategic Priorities, particularly in the areas of Community and Infrastructure.

- **Community:** We foster a livable city with connected residents enjoying distinctive places and activities.
- **Infrastructure (Built & Natural Environment):** We plan, build, and maintain infrastructure to enhance quality of life and civic service delivery while mitigating and adapting to environmental impacts.

By aligning with these strategic priorities, the City demonstrates its commitment to creating a healthy and resilient city where residents can enjoy a high quality of life.

### **OPTIONS / RISKS / ALTERNATIVES**

The following options are available for Council's consideration:

1. Approve the corporate report's recommendations:

- **Benefits:** Supports the shift to battery electric equipment, reducing emissions and noise, and aligns with regional emission-reduction strategies.
- **Risks:** Higher initial costs and possible infrastructure upgrades. Limited commercial-grade electric options for larger equipment may be challenging.

2. Delay the transition to battery electric equipment:

- **Benefits:** Provides time for improvements in battery technology and market readiness for all commercial-grade maintenance equipment.
- **Risks:** Ongoing emissions and noise pollution, negatively impacting air quality and public health

### **CONCLUSION**

The Parks Division's transition to 100% battery electric blowers represents a notable step in reducing emissions and noise pollution in White Rock City Parks. This development improves the quality of life for residents and may serve as a model for other municipalities.

Continued collaboration with Metro Vancouver will be important in creating a region-wide regulatory approach to minimize emissions from small gas-powered landscape equipment. Prioritizing sustainability and innovation can contribute to a healthier and more resilient future for the community.

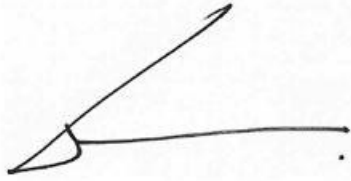
Respectfully submitted,



Jim Gordon, P.Eng.,  
Director of Engineering and Municipal Operations

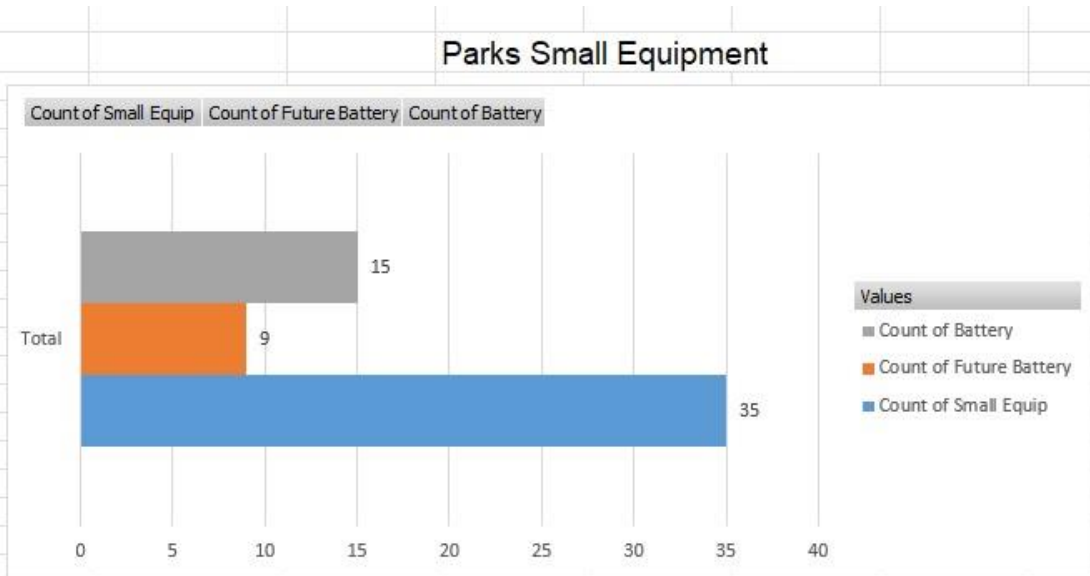
**Comments from the Chief Administrative Officer**

I concur with the recommendation of this corporate report.

A handwritten signature in black ink, consisting of a large, sweeping 'G' followed by a horizontal line that ends in a small dot.

Guillermo Ferrero  
Chief Administrative Officer

### Appendix A **Parks Small Equipment Inventory**



	Parks
% battery powered	43
% battery potential	26