



**SUBJECT:** Options for Enhanced Windrow Clearing  
**TO:** Community Planning, Regulation & Mobility Cttee.  
**FROM:** Roads, Parks and Forestry Department

Report Number: RPF-16-23

Wards Affected: All

Date to Committee: September 12, 2023

Date to Council: September 26, 2023

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### **Recommendation:**

Direct the Director of Roads, Parks, and Forestry to expand the driveway windrow clearing program service boundaries to include all areas of the city; and

Direct the Director of Roads, Parks, and Forestry to implement a 1,000 driveway windrow clearing program as detailed within Option 3 of this report, with no eligibility restrictions, and that the program fee be set at \$125 per driveway for the 2023/2024 winter season; and

Authorize the Executive Director of Legal Services and Corporation Counsel to prepare for Council approval a by-law amending the Rates and Fees By-law No. 83-2022 to implement new Windrow Clearing Program fees as outlined in the roads, parks and forestry department report RPF-16-23.

### **PURPOSE:**

This report is in response to council's April 2023 motion memo request as provided in Appendix A (SD-19-23), to explore costs and options to enhance the current windrow clearing program, as well as review options for a city-wide windrow clearing program including costs and other relevant options.

### **Vision to Focus Alignment:**

- Improve integrated city mobility
  - Building more citizen engagement, community health and culture
  - Deliver customer centric services with a focus on efficiency and technology transformation
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## **Background and Discussion:**

### *Winter Maintenance Levels of Service Context*

The current levels of service for winter maintenance takes the following into consideration:

- Requirements of the Ontario Municipal Act
- Provincial Minimum Maintenance Standards (Reg. 239/02)
- Council-approved enhanced service levels

The Ontario Municipal Act gives municipalities jurisdiction over the maintenance of city-maintained properties including the road and sidewalk network. Compliance with the Provincial Minimum Maintenance Standards (MMS) provides municipalities with a defense against claims of default of maintenance for roads and sidewalks.

Municipalities are free to establish service levels that exceed MMS, but as a consequence will be held to those higher standards in court. Winter maintenance service levels for non-road corridor facilities such as parks and recreational facilities, do not fall within MMS and would be based on appropriate industry practices.

The Municipal Act or MMS does not require a municipality to clear snow windrows adjacent driveways. Though not obligated, a municipality could choose to offer such an enhanced service. For clarity, in this report a windrow is defined as the snow that is deposited at the bottom of a driveway as a result of roadway plowing. Windrows caused by sidewalk plowing are not included in the scope of this report and clearing would continue to be the responsibility of the adjacent property owner.

### *Current Winter Maintenance Driveway Windrow Clearing Program*

The City's current driveway windrow clearing program was permanently established in 2008, after a 2-year pilot. The program provides windrow clearing services for residents who are physically unable to clear the windrow at the bottom of their driveway, and where there is no other able-bodied person living at their address to do so. The program initiated with a 125 registration limit and has incrementally increased over the years to the current 200 driveway capacity. This service is offered to residents that live south of Dundas Street and in the Alton Community.

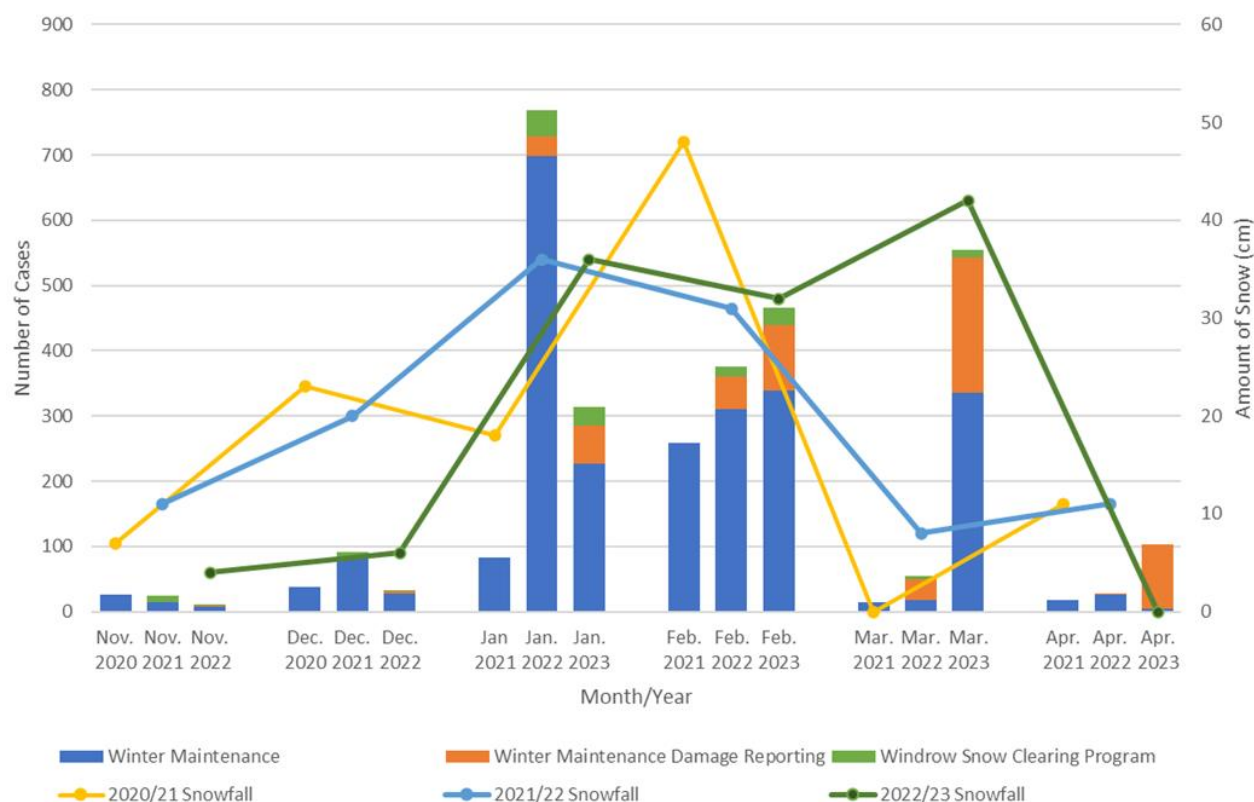
The allocated gross annual budget for this service \$20,000, which is based on five clearing services per season. The average costs for the last two years of the program was approximately \$18,000 for 195 driveways with an average revenue \$11,700, resulting in an average net tax levy impact of \$6,300 per year. Contracted resources are utilized to deliver this program in its entirety.

The initial program fee in 2008 was \$50 per driveway. Annual fee increases have been nominal. The program fee for the 2022/23 winter season was \$60.04 + HST per driveway. The locations for last winter season's program are noted in the Windrow Registrant Heat Map in Appendix B.

The city does not currently provide a city-wide driveway snow windrow clearing service.

### 2022/23 Winter Season

On average, the City of Burlington receives approximately 130cm of snow each winter season, with accumulations generally occurring from November to April. Monthly accumulations vary significantly and are influenced by macro weather patterns and fluctuations in temperatures. The monthly snowfall accumulation and a breakdown of resident enquiries received over the past three winter seasons are depicted in Figure 1 below. Please note the 2020/21 resident enquiry numbers is based on partial data as the department was not integrated with Service Burlington for this winter season.



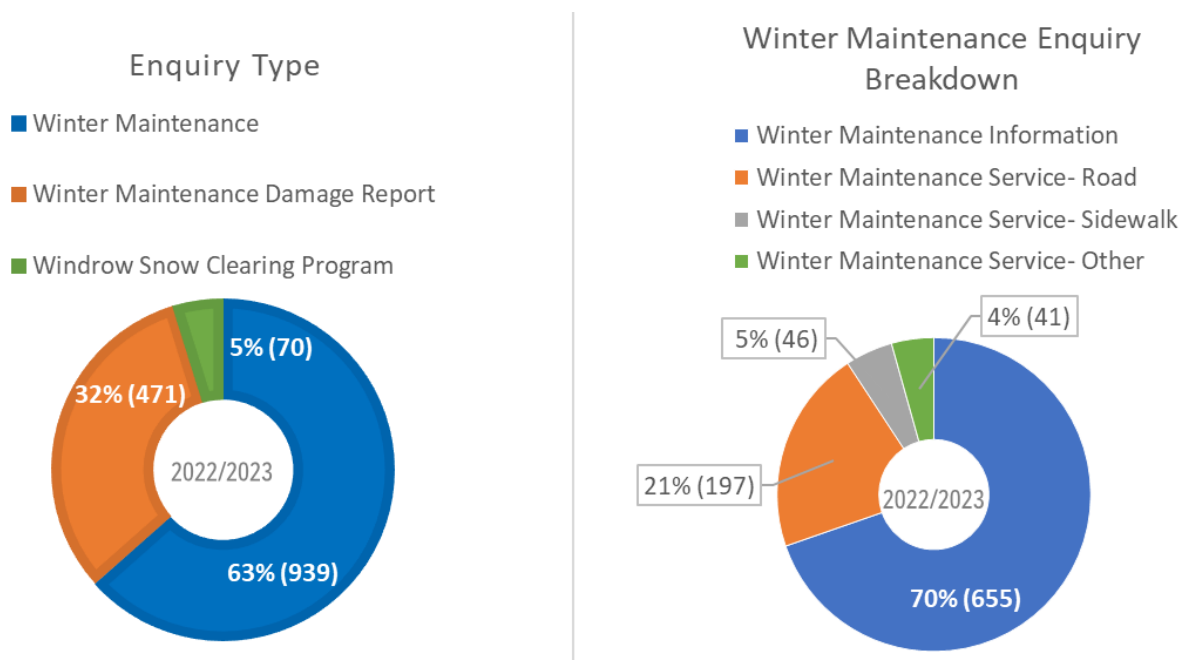
**Figure 1 – Monthly Snowfall and Winter Enquiry Totals from 2020 to 2023**

During the 2022/23 winter season, the city received approximately 120cm of snow, with the majority received in the months of February and March. Snow accumulation generally occurred with temperatures around the freezing threshold, resulting in a mix of rain and snow for many events, which made snow heavy and difficult to clear by hand. Consequently, a high number of snow windrow complaints were received during this

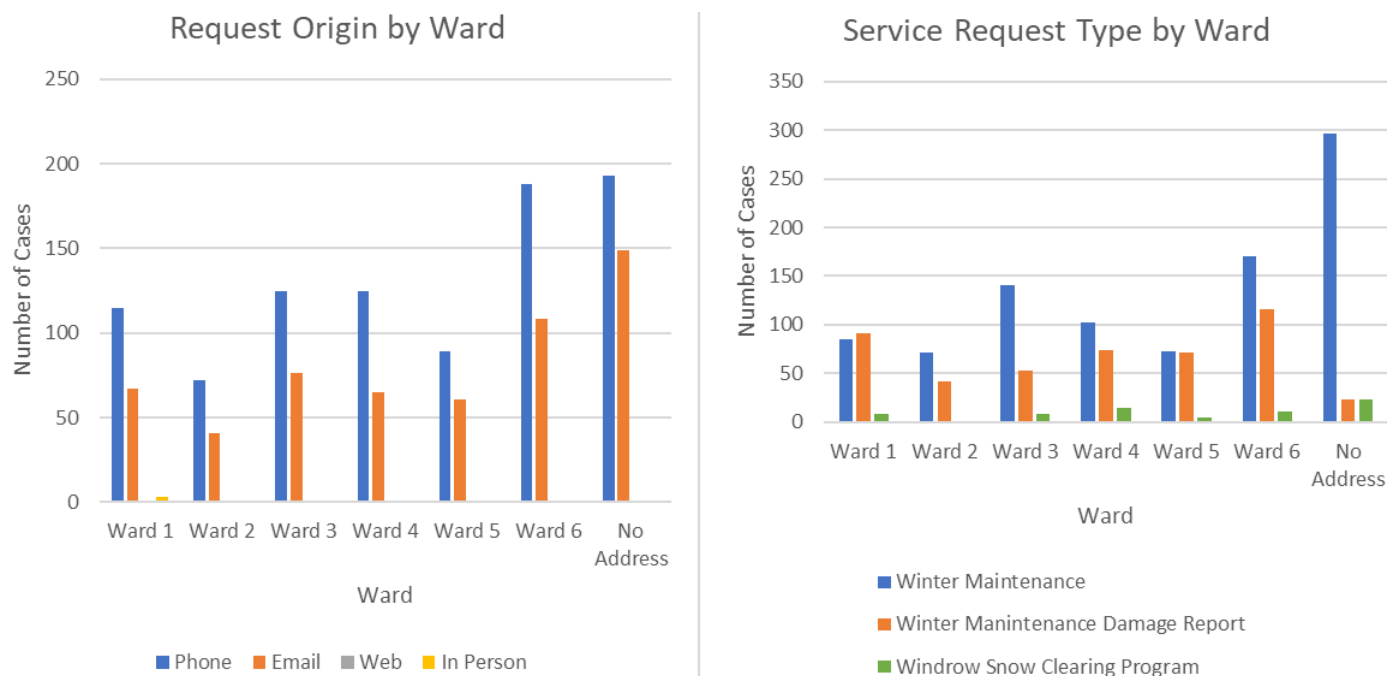
two month period and resulted in council's motion memo to explore costs and options to enhance the current windrow program, as well as review options for a city-wide windrow removal program.

### Customer Service Enquiries

Winter maintenance program enquiries or requests for service, received through Service Burlington totaled 1,480 for the 2022/23 winter season in comparison to 1,342 received for the 2021/22 winter season. The majority of calls received were for road related issues. A breakdown of enquires or request for service received is depicted in Figures 2 and 3 below. Please note that it is likely that a number of windrow related enquiry types were captured under the road related winter maintenance enquiry type. As well, a number of enquiries may also have by-passed Service Burlington and went direct to the Mayors office or Ward Councillor offices, therefore the total windrow numbers identified is likely understated.



**Figure 2 – Winter Maintenance Enquiries for the 2022/23 Winter Season**



**Figure 3 – Winter Maintenance Enquiries by Origin and Ward**

### Strategy/process/risk

The clearing of driveway windrows created from the plowing of roads can be a challenge for many residents, with difficulty being compounded by the amount of snowfall and its consistency/hardness from temperature fluctuations occurring during/after the snowfall event. In addition, certain driveway locations such as those downstream of corners or adjacent wide roads will accumulate more snow than other locations.

Private snow removal services that focus only on windrows are limited as most snow clearing services are offered for clearing of an entire driveway. Costs for clearing of an entire driveway can vary from \$75 to \$125 per visit. This amount will vary depending on many factors such as size of the driveway, the accumulation threshold triggering the service, and the level of hand work necessary. Some companies may offer discounts for seasonal contracts, which can lower the overall cost of snow clearing services. A significant hindrance for retaining private services is the requirement for a deposit to secure services for the entire winter season. Such deposits may be significant in size with little recourse available to the homeowner if the vendor doesn't perform the service as contracted.

Consequently, many municipalities offer driveway windrow clearing assistance for residents with some also providing a city-wide driveway windrow clearing program. Staff have completed a comprehensive review of various windrow clearing programs offered by municipalities across the Greater Toronto Area (GTA) as noted in Table 1 below.

MUNICIPALITY	CITY WIDE PROGRAM	SELECTIVE WINDROW PROGRAM	PROGRAM SIZE (# OF DRIVEWAYS)	COST TO RESIDENT (HST Excluded)	PROGRAM COST
Burlington	No	Yes	200	\$60	\$20,000
Brampton	No	Yes (Financial Assistance Only)	2,900	\$300 to \$400 Grant Reimbursement	\$1,015,000
Hamilton	No	No	-	-	-
Markham	No	Yes	6,900	Included in General Tax Levy	\$604,000
Mississauga	No	Yes	700	\$200 (No cost where eligible)	\$150,000
Oakville	No	yes	400 to 500	\$98	\$83,000
Richmond Hill	Yes	-	55,000	Included in General Tax Levy	\$4,500,000
Toronto	No	Yes	260,000	Included in General Tax Levy	Not Available
Vaughan	Yes	-	84,000	Included in General Tax Levy	\$2,100,000

**Table 1 – List of GTA Municipalities providing Windrow Clearing Assistance**

Municipalities that offer windrow clearing services generally have an eligibility requirement that is tied to age or physical ability. Program costs vary with different ratios of subsidy, with some municipalities offering a free service dependent on household income. Where large or city-wide windrow clearing services are provided, costs for the program are incorporated within overall winter maintenance budgets and funded through the general property tax levy.

Regardless of program size, all municipalities utilize distinct and separate snow clearing equipment, which is additional to the equipment used to plow the roadway. Windrow clearing equipment is typically paired and follows the road plow during the snow plowing operation. In this manner, existing road plowing service levels are maintained and not impacted by windrow clearing operations. A city-wide clearing program essentially requires the municipality to double its fleet size for road related snow clearing. This requirement also comes with the need for additional equipment storage space which can add to the cost of the program.

Windrow clearing service levels vary across municipalities, with response times from two to twelve hours after all residential plowing has been completed. The width of windrow clearing is generally limited to a minimum 2.4m (8ft) wide section at the base of the driveway sufficient to allow vehicle access. It should be noted that similar to road plowing operations, clearing to bare driveway pavement condition will not be achievable and residents will still need to undertake additional snow clearing, especially if they want to make driveway conditions consistent with the remainder of their driveway area.

Challenges for delivering windrow clearing on a large-scale/city-wide basis are as follows:

- increased likelihood of parked cars adjacent to or on the driveway which prevents the service;
- dense driveway spacing with little or no space for snow storage;
- locations with minimal boulevard width or curb-side sidewalk locations with little or no space for snow storage;
- increased potential of damage to driveway aprons; and
- availability of equipment and operators to perform the service.

In addition to the above, as the size of the windrow program increases, so will the need for additional administration resources including those required for inspection, customer enquiry intake and follow-up.

### **Options Considered**

#### **Option 1 – Expanded Service Area of Windrow Clearing Program (Recommended)**

The existing windrow clearing program is only offered to residents located south of Dundas Street and in the Alton Community. It is proposed that the program service boundaries be expanded to include all areas of the city. Staff anticipate a nominal increase in program costs for this change, linked to dead-heading of plow units in order to service a few isolated driveways. This cost adjustment has been incorporated in the costing for Option 2 and Option 3 below.

#### **Option 2 – Increased Program Size to 500 Driveways**

This option expands the existing windrow program size from 200 to 500 driveways. The city would continue to outsource this service and through preliminary discussions with our vendor, we believe this service expansion can be implemented for the 2023/24 winter season. The service response time would not change from the existing service level and windrows will be cleared within twelve (12) hours after the abutting road has been plowed.

The estimated costs for this option are provided in Table 2 below and are inclusive of additional inspection/customer enquiry response resources in the form of one (1) seasonal winter inspector. Program fees have been adjusted higher to offset the costs of administering a larger program.

	<b>Existing Program Costs (200 Driveways)</b>	<b>Estimated Program Costs (500 Driveways)</b>
Equipment & Operator Standby	\$12,000	\$30,000

Windrow Clearing Operations	\$13,000	\$35,000
Administrative Resources (1 seasonal winter inspector)	-	\$20,000
Revenue @ \$60 per driveway	\$12,000	-
Revenue @ \$75 per driveway		\$37,500
<b>Net Program Costs</b>	<b>\$13,000</b>	<b>\$47,500</b>
<b>Existing Program Budget</b>	<b>\$20,000</b>	<b>\$20,000</b>
<b>Additional Budget Impact</b>	<b>N/A</b>	<b>\$27,500</b>

**Table 2 – Estimated Cost for a 500 Driveway Clearing Program**

Option 3 – Open Program with No Eligibility Restrictions, Increase Program Size to 1,000 Driveways (Recommended)

This option eliminates all eligibility requirements and makes the program available to any resident, regardless of physical ability or age. To accommodate the anticipated increase in registrations, it is proposed that the program size be expanded to 1,000 driveways. Nonetheless, in order to maintain the intent of the original program, priority will be given to past registrants as well as those who are physically unable to clear their windrow.

The city would continue to outsource this service and through preliminary discussions with our vendor, we believe this service expansion can be implemented for the 2023/24 winter season. The service response time would not change from the existing service level and windrows will be cleared within twelve (12) hours after the abutting road has been plowed.

The estimated costs for this option are provided in Table 3 below and are inclusive of additional inspection/customer enquiry response resources in the form of one (1) seasonal winter inspector. Furthermore, to offset the increased costs for such an expanded program, the fees have been adjusted to be more in line with windrow clearing program fees provided by other municipalities, as well as to mitigate any impact to the current windrow program budget.

	<b>Existing Program Costs (200 Driveways)</b>	<b>Estimated Program Costs (1,000 Driveways)</b>
Equipment & Operator Standby	\$12,000	\$60,000
Windrow Clearing Operations	\$13,000	\$65,000
Administrative Resources (1 Seasonal Inspector)	-	\$20,000
Revenue @ \$60 per driveway	\$12,000	-
Revenue @ \$125 per driveway	-	\$125,000



<b>Net Program Costs</b>	<b>\$13,000</b>	<b>\$20,000</b>
<b>Existing Program Budget</b>	<b>\$20,000</b>	<b>\$20,000</b>
<b>Additional Budget Impact</b>	<b>N/A</b>	<b>N/A</b>

**Table 3 – Estimated Cost for 1,000 Driveway Clearing Program****Option 4 – Implement a City-Wide Windrow Clearing Program**

A city-wide windrow clearing program would include the clearing of approximately 38,000 residential driveways. Driveways located on commercial, industrial, institutional, high-rise properties and private roads would not be included in this program.

To accomplish this, the City would need to contract approximately thirty (30) additional specially equipped tractor or plow units. Each new unit would be paired and follow the main road plow as it clears snow from the road. The windrow clearing unit would have a custom fabricated gate or wing that would lower and raise at each driveway, pushing the snow to one end of the driveway creating a minimum 3m (10ft) opening for vehicle access. The target service level to clear all windrows would be twelve (12) hours after all roads had been plowed, however the volume of snow and severity of the snowfall would affect this response time.

If directed, the implementation time for a city-wide windrow clearing program would be contingent on procuring a contractor and allowing sufficient time for them to secure and prepare the necessary equipment. In addition to typical tendering and award timelines of 3 to 4 months, the contractor would require additional time for unit acquisition and fit-up, which could be anywhere from 12 to 18 months for the fleet size required for this program. Assuming approval of funding for this program in early 2024, a city-wide program would likely not be ready for implementation until the 2025/26 winter season.

There is also insufficient capacity at the Harvester Operations Campus to accommodate windrow removal equipment and additional storage land close to this facility would be required for these units, which will ensure availability and facilitate quick response for this service.

In addition to the equipment and land requirements, the administration of such a large city-wide operation would require additional full-time and seasonal staff resources for coordination, inspection, parking control, by-law, customer enquiry intake and follow-up.

The estimated cost for this option is provided in Table 4 below. Note that there are no registration or revenue fees, as the entire cost of the program would be added to the generally tax levy.

	<b>Existing Program Costs (200 Driveways)</b>	<b>Estimated City-Wide Program Costs (38,000 Driveways)</b>
Equipment & Operator Standby	\$12,000	\$2,600,000

Windrow Clearing Operations	\$13,000	\$500,000
RPF Administrative Resources (Full Time Program Coordinator plus 6 Seasonal Inspectors – 1 per Ward)	-	\$275,000
Bylaw and Parking Control Resources (Overtime plus Contracted Towing)	-	\$100,000
Leased Land for Equipment Staging	-	\$300,000
Revenue @ \$60 per driveway	\$12,000	-
<b>Net Program Costs</b>	<b>\$13,000</b>	<b>\$3,775,000</b>
<b>Existing Program Budget</b>	<b>\$20,000</b>	<b>\$20,000</b>
<b>Additional Budget Impact</b>	<b>N/A</b>	<b>\$3,755,000</b>

**Table 4 – Estimated Cost for a City-Wide Windrow Clearing Program**

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### **Financial Matters:**

The Roads, Parks and Forestry winter maintenance operating budget for 2023 is as follows:

Roads	\$ 5,076,000
Sidewalks, Pathways and Trails	\$ 1,496,000
Bus Stops	\$ 320,000
Park Facilities	\$ 85,000
Windrow Program	\$ 20,000
<b>Total</b>	<b>\$ 6,997,000</b>

The winter maintenance operating budget is based on a rolling 5-year average winter season. The annual budget is also adjusted for inflationary and scope increases as necessary. In addition, the city maintains a Severe Weather Reserve Fund to offset budget shortfalls due to severity of the winter season. After a mild season, surplus funds are typically used to offset minor budget shortfalls in other departmental service areas or if significant, these funds will be used to top-up the reserve. The current balance of the reserve fund is \$5,241,890.

## **Total Financial Impact**

The financial impact associated with each windrow program option is included in the body of the report.

## **Source of Funding**

The source of funding for winter maintenance inclusive of a windrow clearing program is the operating budget supplemented by registration revenues where applicable. The budget is split over two fiscal periods for the same winter season. The Severe Weather Reserve is relied upon when winter expenditures significantly exceed the allocated annual winter budgets.

## **Other Resource Impacts**

Should Council wish to modify windrow clearing service levels, changes would be subject to the availability of resources, and as these services are generally procured several months in advance, any program increase greater than a 1,000 driveway program, would likely not be implemented until the 2024/2025 winter season.

With respect to the city-wide windrow program option, there will be a need to increase the presence of parking control and by-law officers to patrol streets during plowing operations and proactively removed parked vehicles adjacent driveways, which if not addressed would prevent the successful execution of the windrow clearing operation.

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## **Climate Implications:**

Winter response is impacted by a changing climate such as severe weather events, extreme cold cycles and fluctuating freeze and thaw events. Response to any of these situations vary and are dependent on the severity of each weather event. The windrow program is currently dependent on gas and diesel powered equipment, that contribute to the City's corporate greenhouse gas emissions. Through its green fleet replacement strategy, the city will endeavor to reduce its reliance on winter maintenance vehicles which are powered by internal combustion engines.

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## **Engagement Matters:**

Any change in winter maintenance service levels will impact the public. Communication of any proposed windrow program change is very important to ensure the public have a good understanding of the program specifics, challenges, and the variables that impact the successful execution of the program.

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## **Conclusion:**

This report is in response to council's motion memo request to explore costs and options to enhance the current windrow program, as well as review options for a city-wide windrow removal program. With receipt of this report, we are considering the staff directions arising out of the motion memo to be fulfilled.

Furthermore, staff recognize the challenges that residents can face in clearing snow windrows as well as difficulties in procuring reliable private services. We are therefore supportive of continuing the program and have recommended an option that provided unrestricted program access to all residents throughout the city, as well as mitigating any impact to the operating budget.

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Respectfully submitted,

Matt Koevoets  
Manager of Roads Operations  
905-335-7777 ext. 6170

## **Appendices:**

- A. Enhanced Windrow Clearing Motion Memo
- B. 2022/23 Windrow Registrant Heat Map

## **Report Approval:**

All reports are reviewed and/or approved by Department Director, the Chief Financial Officer and the Executive Director of Legal Services & Corporation Counsel.