



DISTRICT OF WEST VANCOUVER
750 17TH STREET, WEST VANCOUVER BC V7V 3T3

COUNCIL REPORT

Date:	June 28, 2022
From:	Andrew Banks, Senior Manager of Parks Emily Willobee, Senior Manager, Engineering Services
Subject:	Phased Recycling Program in Parks
File:	1700-09

RECOMMENDATION

THAT

1. staff be directed to initiate Stage 1 of a three-phased approach for a three-stream recycling program in the District of West Vancouver’s destination waterfront parks, starting in early 2023;
2. staff be directed to increase the Public Realm Refuse Fee in the Solid Waste Utility by an additional \$4.63 per household for 2023 to pay for the \$90,000 of operating costs in the Stage 1 recycling program;
3. staff be directed to fund the \$101,000 capital costs for the Stage 1 recycling program through the 2022 Phase 2 capital program; and
4. staff report to Council on the results of Stage 1 recycling program in September 2023 to receive additional direction before implementing future phases.

1.0 Purpose

This report provides Council with a proposed phased approach consisting of three stages for initiating a diversion program for compostable materials (excluding pet waste), containers, and general waste in District of West Vancouver (District) destination waterfront parks.

2.0 Legislation/Bylaw/Policy

The *B.C. Community Charter* – A charter that defines the regulatory authority of local and regional government jurisdictions.

B.C.’s Environmental Management Act and Recycling Regulation – A provincial act containing regulation governing Environmental Protection and Solid Waste Management, including the creation of solid waste management plans and extended producer responsibility (EPR) programs.

Greater Vancouver Sewerage and Drainage District Bylaw No. 181, 1996 and amendments – A bylaw to establish a regulatory system for solid waste facilities.

Greater Vancouver Sewerage and Drainage District Bylaw No. 306, 2017 and amendments – A bylaw to establish the tipping fee and Solid Waste disposal regulation.

District of West Vancouver Solid Waste Utility Bylaw No. 4740, 2012 and amendments – A bylaw to provide for the operation and management of a solid waste utility.

3.0 Council Strategic Objective(s)/Official Community Plan

Expanding recycling and waste diversion initiatives is supported in the Official Community Plan Section through the following policies:

2.5.9 Increase community-wide diversion rates to meet regional solid waste management objectives of 80% diversion by 2020 and work progressively towards maximizing diversion rates beyond 2020.

This report also aligns with Council Strategic Objective:

3.5 Reduce community and corporate waste

Deliverable:

3.5.1 Address the reduction of single-use plastics, including by assessing the introduction of recycling in District parks and working with businesses to reduce waste.

4.0 Financial Implications

Staff have estimated the preliminary costs of implementing a phased approach for three-stream recycling in District destination waterfront parks. Projected capital and anticipated ongoing operating costs for each stage is provided in the table below:

Location	Stage 1		Stage 2		Stage 3		Ongoing Annual Costs
	Capital	Operating	Capital	Operating	Capital	Operating	Operating
Millennium Park to Dundarave Park	\$101,000	\$90,000		\$90,000		\$90,000	\$90,000
Horseshoe Bay Park and Whytecliff Park			\$320,000	\$170,000		\$170,000	\$170,000
Ambleside Park					\$231,000	\$87,000	\$87,000
Totals	\$101,000	\$90,000	\$320,000	\$260,000	\$231,000	\$347,000	\$347,000

Table 1: Projected capital and operating costs of a three-phased approach for recycling program in District destination waterfront parks

The total operating and capital cost for Stage 1 in 2023 is \$191,000. Capital cost estimates reflect the cost of installing new dedicated recycling receptacles in these parks. Operational costs include labour, equipment, and processing of separated collection of recycling and compostable materials.

It is important to note that projected costs are estimates and subject to change based on inflation and other factors, particularly for Stages 2 and 3 when the program is expected to require an additional collection vehicle and construction of service area staging hubs to support the collection and processing of diverted parks materials. The costs of the collection vehicle and construction of service areas will require further review closer to the implementation.

If approved by Council, expanded recycling in parks would be a new and additional service provided to the community. To implement Stage 1, the following funding approach is proposed:

- Capital costs be funded by the 2022 Phase 2 capital program.
- Operating costs be funded through an increase to the Solid Waste Utility's Public Realm Refuse Fee, as these ongoing operational costs must be funded in a sustainable way.

Staff are proposing to increase the Public Realm Refuse Fee as there needs to be an ongoing revenue stream to cover the costs of this program. The existing Parks maintenance budget does not cover refuse management in District parks and is already constrained to provide adequate service levels of upkeep.

The table below provides the estimated impact of the operating cost for the parks recycling program on the Public Realm Refuse rates. The proposed 2023 Public Realm Refuse Fee is included to demonstrate the potential impact to rate payers for introducing this additional service in 2023.

	Stage 1 Funding Requirement
Proposed 2023 Public Realm Refuse Fee (annual per household, net of 10% discount)	\$61.89
Proposed Public Realm Refuse Fee increase to support operating costs of expanded recycling in parks (per household)	\$4.63

Table 2: Estimated impact on Solid Waste Utility Public Realm Refuse rates

If the recommendations in this report are approved, the District's overall Public Realm collection costs would need to increase by \$4.63 per household to cover the operating costs of Stage 1 of the parks recycling program. The above cost projection is in addition to projected Solid Waste Utility Public Realm Refuse Fee increases proposed within the Utility's 5-year Financial Plan (2023-2027).

Should the recommendations in this report be approved, staff would bring forward a Solid Waste Utility rate amendment to reflect the additional increase to Public Realm Refuse Fee necessary to support this program.

5.0 Background

5.1 Previous Decisions

Council, at its December 13, 2021 regular meeting, passed the following resolution:

THAT Proposed "Solid Waste Utility Bylaw No. 4740, 2012, Amendment Bylaw No. 5150, 2021" be adopted; and Solid Waste Utility fees be adjusted for 2022 to the amounts set out in Schedule A in the bylaw amendment.

Council, at its December 4, 2017, regular meeting, passed the following resolution to including budget provisions in the Solid Waste Utility allowing for expansion of streetscape recycling initiatives:

THAT proposed "Solid Waste Utility Bylaw No. 4740, 2012, Amendment Bylaw No. 4954, 2017" be adopted.

Council, at its December 5, 2016, regular meeting, passed the following resolution approving funding to launch a streetscape recycling pilot in 2017:

THAT proposed "Solid Waste Utility Bylaw No. 4740, 2012, Amendment Bylaw No. 4923, 2016" be adopted.

Council, at its December 7, 2015, regular meeting, passed the following resolution, absorbing public realm waste into the solid waste utility and establishing a public realm refuse charge beginning in 2016:

THAT proposed "Solid Waste Utility Bylaw No. 4740, 2012 Amendment Bylaw No. 4863, 2015" be adopted.

5.2 History

The provision of litter picking and garbage collection in District parks and the public realm is an important service ensuring that the community is kept clean and sanitary.

Prior to 2016, the District's general fund was utilized for litter pickup and garbage collection in the public realm including parks. In December 2015, Council endorsed a recommendation to consolidate all District refuse activities within the Solid Waste Utility effective January 2016.

In addition to residential waste collection service, the Solid Waste Utility absorbed public realm waste collection programs for general waste collected from parks, streetscapes, and from civic buildings. A Public Realm Refuse fee was created within the utility to fund these programs and was charged to all residential households on quarterly utility bills.

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Since 2016, the District has expanded the number of programs diverting waste from the landfill in the District's public realm including in parks. Program expansion was funded by revenue from the Public Realm Refuse Fee, but also by a strategic draw down of the Solid Waste Utility Reserve.

Separated Dog Waste

In 2016, the District introduced a separated dog waste collection program in parks. This program has expanded over the years and is successfully keeping dog waste out of the landfill and keeping parks clean. There are currently 36 separated dog waste collection receptacles throughout District parks. The last audit determined that more than 47 cubic metres of dog waste have been diverted from the landfill and into the regional sanitary sewer system.

Streetside Recycling

The District also introduced a streetside recycling collection program in 2019. The program consists of 38 three-stream recycling stations that separately collect paper recycling, container recycling, and garbage. These recycling stations are located primarily in the District's commercial areas.

Since its launch, this program has diverted nearly 50 tonnes of paper and container recycling from the landfill. Staff continue to monitor this program for challenges related to contamination. Contamination does prevent some materials collected in streetside recycling bins from being processed as recycling, particularly in the paper stream. Contaminated material is disposed as garbage.

Additionally, not all material that could be recycled through this program is sorted correctly into available streams and some recyclable materials remain in the garbage.

Limited Deposit Container Recycling in Parks

There are currently some limited recycling options in District parks. Receptacles for refundable containers were installed at Millennium Park, John Lawson Park, and Dundarave Park. These receptacles for refundable containers were introduced alongside the recently adopted Bylaw that allows the consumption of alcohol in some District waterfront parks.

The bins for collecting refundable deposit containers has relatively low servicing requirements because members of the public regularly accessed and emptied the bins, presumably to return containers for refund. As a result, the District did not incur many additional servicing or processing costs with the introduction of this program.

6.0 Analysis

6.1 Discussion

There is an increasing public expectation to see more opportunities to recycle in District parks based on the greater awareness of the environment by the public and the recent opportunity to recycle in the public realm in the District's business areas.

This expectation is recognized by Council and is incorporated in Council's Strategic Plan 2021-2022 through the deliverable 3.5.1: Address the reduction of single-use plastics, including by assessing the introduction of recycling in District parks and working with businesses to reduce waste.

The provision of a successful recycling service in parks requires the following factors set out below to be taken into consideration:

Diversion Potential

To inform a potential park diversion program, staff worked with a specialized consultant to undertake a preliminary audit of park waste in District destination waterfront parks in May 2022. During the audit, garbage from 26 receptacles in five parks was sorted and analyzed. The parks audited included Ambleside Park, Dundarave Park, Horseshoe Bay Park (eastern section that is open), Lighthouse Park, and Whytecliff Park.

An overview of the most common categories of park waste from all audited parks is provided in the table below. **Appendix A** of this report illustrates the overall composition of garbage in parks.

compostable materials <ul style="list-style-type: none"> • compostable foodware • food soiled paper • food scraps 	30.4 %
garbage	25.0 %
bagged household waste	19.8 %
pet waste	12.8 %
containers	12.6 %
paper	7.9 %

Table 3: Composition of Refuse Collected in Parks

The audit indicates that recyclable containers and paper make up only about 20% of waste collected in District parks and that compostable materials present the greatest diversion potential within District parks.

A three-stream collection service of compostable materials, containers, and garbage is likely the most effective program for recycling in District destination waterfront parks. Further, various types of paper such as craft paper takeout bags could be accepted in the compostable materials stream and diverted from landfill along with food scraps and other compostable organic materials.

Using this information, a plan for a three-stream recycling collection program for compostable materials (excluding pet waste), containers, and

general waste for the District's destination waterfront parks has been developed.

An additional audit of parks garbage is planned for mid-summer 2022 using the same methodology to determine the effects of peak park usage on parks waste composition and confirm findings from the May 2022 parks garbage audit.

Contamination of Diverted Materials in Parks

Contamination is a key challenge of any recycling program and occurs when items are incorrectly sorted. Contamination of recyclables with general waste is especially challenging in outdoor public locations such as parks and streetscapes due to the unsupervised nature of outdoor receptacles. Research shows that people are less likely to sort materials correctly when in public places than they are at home. When contamination in a recycling receptacle is high, all materials in the receptacle, even the items people have correctly sorted, may need to be disposed as garbage instead of being recycled.

In order to reduce a possible high contamination rate in the recycling and compostable materials streams in parks, the proposed phased recycling plan reflects current best practices for recycling in the public realm such as:

- encouraging proper sorting of materials in receptacles using restrictive lids and effective labels and signage
- keeping the receptacles together to make them more likely to be used properly by park visitors
- locating receptacles in the right areas to maximize effectiveness
- keeping the receptacles clean and well maintained

These practices have been shown to reduce contamination to acceptable levels in other jurisdictions. However, the District has not tested outdoor public realm compostable materials collection in parks. This is a factor in the recommendation to proceed in a three-phased approach for recycling in District destination waterfront parks which will allow staff to evaluate and report on the effectiveness of the program.

Operational Considerations and Cost

The provision of three-stream collection in parks will be a new, additional District service that is not currently funded within existing resources.

The estimated costs of this proposed recycling program in District destination waterfront parks includes the supply of specialized receptacles (bear proof receptacles for general waste and compostable materials). It also reflects the ongoing operations cost of labour for pickup, collection vehicles, and processing costs. Also, beginning in Stage 2, a new dedicated vehicle for collection is required.

Staff have proposed an in-house collection model for introducing a three-stream system to District parks as it is recognized that there are efficiencies and flexibility in utilizing staff and equipment currently allocated to waste collection and litter picking in parks.

Phased Plan

To effectively manage the program and to build on learnings, it is proposed to implement recycling in District waterfront destination parks in three phases. The parks that are being considered for this program and the proposed phases are as follows:

Stage 1 Millennium Park to Dundarave Park

The introduction of recycling in this area allows for the utilization of an existing District vehicle for collection and requires the installation of 44 new receptacles.

Stage 2 Whytecliff Park and Horseshoe Bay Park

This stage includes the building of a small service area staging hub in the vicinity of the Gleneagles Golf Course to support the collection and processing of diverted parks materials. An additional collection vehicle and the installation of 48 new receptacles would be required.

Stage 3 Ambleside Park

As Ambleside Park is the District's busiest park, this phase is planned to occur last to allow for the planning of supporting infrastructure for a recycling program in the park. This supporting infrastructure includes the installation of a compactor bin at the concession area and the building of a small service area staging hub in the park. This phase also requires the installation of 44 new receptacles.

There would be a thorough evaluation completed of the Stage 1 program to measure the success of the program. Additional audits on the three-streams would be completed to review success and contamination rates. Staff will be reporting to Council on the effectiveness of the Stage 1 prior to initiating Stages 2 and 3 of this recycling program.

6.2 Sustainability

The District is committed to regional waste reduction targets outlined in the Integrated Solid Waste and Resource Management Plan and additional local targets as established in the Community Energy & Emissions Plan (CEEP).

The CEEP does not include objectives related to waste reduction initiatives in the public realm, however, the consolidation of solid waste activities within the Solid Waste Utility provides the opportunity to reflect waste reduction principles in public space waste collection programs.

6.3 **Public Engagement and Outreach**

Staff apply the District's Community Outreach and Engagement Policy when communicating and engaging with the public on issues pertaining to the Solid Waste Utility.

If the recommendations in this report are approved, staff will work with the District's Communications team to develop an educational and communication program for park users on the recycling in parks program.

6.4 **Other Communication, Consultation, and Research**

This report and the proposed staged implementation of recycling in District parks is a collaborative effort representing contributions from staff in the District's Parks, Culture & Community Services, Engineering & Transportation Services, and Financial Services Divisions.

Financial information from this report and other reports pertaining to the Public Realm Refuse Fee are included as part of communications related to overall District Budget process.

7.0 **Options**

7.1 **Recommended Option**

THAT

1. staff be directed to initiate Stage 1 of a three-phased approach for a three-stream recycling program in the District of West Vancouver's destination waterfront parks, starting in early 2023;
2. staff be directed to increase the Public Realm Refuse Fee in the Solid Waste Utility by an additional \$4.63 per household for 2023 to pay for the \$90,000 of operating costs in the Stage 1 recycling program;
3. staff be directed to fund the \$101,000 capital costs for the Stage 1 recycling program through the 2022 Phase 2 capital program; and
4. staff report to Council on the results of Stage 1 recycling program in September 2023 to receive additional direction before implementing future phases.

7.2 **Considered Options**

Council may:

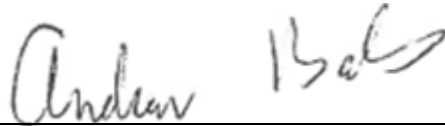
- request further information; and/or
- not approve the recommendations.

8.0 Conclusion

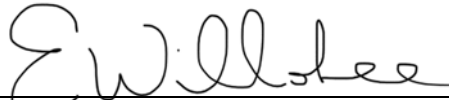
This report outlines the cost of implementing a phased recycling program in the District of West Vancouver's destination waterfront parks and the considerations required for the program to be successful. The operational costs of Stage 1 would be covered through an increase of \$4.63 per household in 2023 to the Public Realm Refuse Fee in the Solid Waste Utility and the capital costs of Phase 1 would be covered through the 2022 Phase 2 capital program.

The proposed three-stream program of collecting general waste, recyclable containers, and compostable materials in District destination waterfront parks would help the District in its overall waste reduction goals.

Authors:



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Concurrence:

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Appendix A: Overall Parks Waste Composition – May 2022 Audit

APPENDIX A

Phased Recycling Program in Parks	
May 2022 Audit	%
Compostable Materials - Food-soiled paper	10.1
Compostable Materials - Compostable foodware packaging (plastic)	0.1
Compostable Materials - Pet Waste	12.8
Compostable Materials - Food Scraps	20.2
Compostable Materials	43.2
Garbage - Non-Recyclable Foodware and Packaging	0.7
Garbage - Bagged household Waste	19.8
Garbage - Textiles	0.2
Garbage - Other Waste	4.3
Garbage	25.0
Containers - Refundable Deposit Beverage Containers	4.3
Containers - Refundable Deposit Glass Beverage Containers	3.5
Containers - Coffee Cups	5.2
Containers - Other Drink Cups	1.9
Containers - Plastic Fast Food Containers	1.0
Containers - Other Non-Refundable Recycle BC Containers	2.0
Containers - Non-Refundable Recycle BC Glass Containers	0.2
Containers	18.1
Paper - Office Paper	1.5
Paper - Newspaper and Fliers	0.8
Paper - Cardboard	3.5
Paper- Paper Takeout Bages/Containers	2.0
Paper - Paper Straws	0.1
Paper	7.9
Other Prohibited Items - Other Plastic (non-Recycle BC)	4.4
Other Prohibited Items - Plastic Straws	0.1
Other Prohibited Items - Plastic Utensils	0.4
Other Prohibited Items	4.9
Recycle BC Recyclable Materials - Flexible Film Packaging	0.6
Recycle BC Recyclable Materials - Styrofoam Foodware	0.1
Recycle BC Recyclable Materials	0.7

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