



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

8.

COUNCIL REPORT

Date:	August 30, 2023
From:	Jill Lawlor, Acting Senior Manager of Parks
Subject:	Phased Recycling Program
File:	2150-01

RECOMMENDATION

THAT

1. staff be directed to initiate a modified Phase 2 of the multi-phased recycling program in District of West Vancouver’s destination waterfront parks, starting in 2024;
2. staff be directed to incorporate an increase to the Public Realm Refuse Fee in the Solid Waste Utility by an additional \$7.32 per household in 2024 to fund the \$153,000 operating costs for implementation of Phase 2 of the parks recycling program;
3. staff submit capital costs of \$239,000 to implement Phase 2 of the parks recycling program in the District’s 2023 Phase 2 capital funding request; and
4. staff report to Council on the results of the Phase 2 parks recycling program 12 months after implementation to seek additional direction on future phases.

1.0 Purpose

This report provides Council with a proposed multi-phased approach to divert compostable materials (excluding pet waste), containers, and general waste in District of West Vancouver (District) destination waterfront parks.

2.0 Legislation/Bylaw/Policy

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 programs.

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

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

District of West Vancouver Solid Waste Utility Bylaw. 4740, 2012: A bylaw to provide for the operation and management of a solid waste utility.

District of West Vancouver Environmental Reserve Fund Bylaw No. 5188, 2022: A bylaw to support climate action and environmental protection initiatives. A Council resolution is required for the use and allocation of the funds.

3.0 Council Strategic Objective(s)/Official Community Plan

Expanding the 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 to reduce community and corporate waste by addressing the reduction of single-use plastics, including by accessing the introduction of recycling in District Parks and working with businesses to reduce waste.

4.0 Financial Implications

Staff have updated the estimated costs for implementing a multi-phased recycling program (“Program”) in District destination waterfront parks. Projected capital and operating costs are provided in the table below.

Projected capital and operating costs of a three-phased Program in District destination waterfront parks							
	Phase 1 implemented in 2023		Phase 2 proposed for 2024		Phase 3		Ongoing Annual Costs
Location	Capital	Operating	Capital	Operating	Capital	Operating	Operating
Millennium Park to Dundarave Park	\$101,000	\$90,000		\$92,000		\$92,000	\$92,000
Horseshoe Bay Park & Whytecliff Park			\$239,000	\$153,000		\$170,000*	\$170,000
Ambleside Park					\$231,000	\$87,000	\$87,000
Totals	\$101,000	\$90,000	\$239,000	\$245,000	\$231,000	\$349,000	\$349,000

*expansion to include organic waste collection

Phase 1 of the Program has been implemented from Millennium Park to Dunderave Park in 2023. Financially, the Program is tracking to remain within the requested funding.

Phase 2 of the Program originally included the expansion to a three-stream recycling program (containers, organics, garbage) in Horseshoe Bay Park and Whytecliff Park. Capital costs included the lease of a service vehicle, receptacles, and construction of a recycling and organics staging depot adjacent to the Gleneagles Golf Course. When Horseshoe Bay Park re-opened from renovations in July 2023, container recycling was implemented in this park in advance of Phase 2.

Staff are proposing to proceed with a modified Phase 2 that continues with container recycling in Horseshoe Bay Park and expands the container recycling program to include Whytecliff Park. Staff are recommending modifying Phase 2 by not proceeding with the organics collection in additional parks at this time, with clarification provided in the Analysis section of this report.

The revised capital cost for the modified Phase 2 in 2024 is estimated at \$239,000. Capital costs include replacing the existing in-ground receptacles, repurposing existing bear cans, and installing additional recycling containers to create dedicated recycling stations throughout Whytecliff Park; the lease of a vehicle; and construction of a staging depot. The number of receptacles required is based on the volume of material typically collected in each park. As such, capital costs for receptacles remain the same for a two- or three-stream system when introduced.

As two-stream recycling is already installed in Horseshoe Bay Park, and there are surplus receptacles from Phase 1, the estimated capital cost of expanding to Whytecliff Park is approximately \$80,000 lower than previously estimated. Expanding with two-streams is expected to result in an operating cost increase of \$153,000, slightly lower than the previously proposed three-stream system.

It is important to note that projected costs are estimates and subject to change based on inflation and other factors. Costs for the service vehicle and construction of a service area requires further review closer to implementation.

If a modified Phase 2 is approved by Council, the following funding approach is proposed:

- Capital costs of \$109,000 for receptacles and construction of a sorting depot be funded from the Environmental Reserve Fund.
- Capital costs of \$130,000 for the leasing of a 1-ton cube truck be funded through the Capital Fund (\$115,000) and uplift in cost for an electric version of the truck through the Environmental Reserve Fund (\$15,000). The purpose of the Environmental Reserve Fund is to fund one-time initiatives or projects that move the District towards its climate

action goals. The capital costs associated with the implementation of Parks Recycling from the Environmental Reserve Fund meets this criteria and complies with Section 4.2(a) of the Environmental Reserve Fund Bylaw as a program that supports the protection of the natural environment.

- Operating costs of \$153,000 will be funded through an increase to the Solid Waste Utility’s Public Realm Refuse Fee, as ongoing operational costs must be funded in a sustainable way.

The table below provides the estimated impact of the operating cost for the Program on the Public Realm Refuse rates. The proposed 2024 Public Realm Refuse Fee is listed to demonstrate the potential impact to ratepayers for introducing this additional service in 2024.

Estimated impact on Solid Waste Utility Public Realm Refuse rates	
Proposed 2024 Public Realm Refuse Fee	Phase 2 Funding Requirement
Existing service levels (annual per household, net of 10% discount)	\$75.83
Fee increase to support operating costs of implementing modified Phase 2 recycling in parks (per household)	\$7.32
Total project cost:	\$83.15

Implementing the modified Phase 2 Program will result in an additional increase of \$7.32 to the Public Realm Refuse Fee for 2024. The projected annual fee for 2024 would increase to \$83.15 (net of the 10% discount for early payment) per household in 2024.

Should the recommendations in this report be approved, staff would update the proposed 2024 Solid Waste Utility rates to reflect the additional increase to Public Realm Refuse Fee necessary to support this Program. Council is scheduled to review and approve proposed 2024 utility rates at a regular Council meeting in November this year.

5.0 Background

5.1 Previous Decisions

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.

Council, at its December 12, 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 11, 2017 regular meeting, passed the following resolution to include 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 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 July 25, 2022 regular meeting, passed the following resolution to adopt the 2023 solid waste utility rates:

THAT proposed “Solid Waste Utility Bylaw No. 4740, 2012, Amendment Bylaw No. 5191, 2022” be adopted.

Council, at its September 28, 2022 special meeting, passed the following resolution to adopt the amended 2023 solid waste utility rates to account for additional operating costs associated with phased introduction of recycling in select parks:

THAT proposed “Solid Waste Utility Bylaw No. 4740, 2012, Amendment Bylaw No. 5220, 2022” be adopted.

5.2 History

In December 2015, Council endorsed a recommendation to consolidate all District refuse activities, including public realm waste, 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 civic buildings. A Public Realm Refuse Fee was created within the utility to fund these programs and is charged to residential households on quarterly utility bills.

There is a growing public expectation to see more recycling opportunities in District parks based on the greater awareness of the environment. This expectation is recognized by Council and is incorporated in Council’s Strategic Plan 2021-2022.

Phase 1 Recycling in Parks

Recycling in parks was installed from Millennium Park to Dundarave Park as approved by Council in 2022 for implementation in 2023. The report titled Phased Recycling Program in Parks presented at the July 11, 2022 Council meeting is attached as **Appendix A**. The Program launched in May 2023 with 36 receptacles collecting containers, organics, and

garbage. Staff utilized existing vehicles and modified pre-existing collection routes. A staging depot was put in place at the District's Operations Centre, equipped with bins for the container and food waste streams. Staff collect and transport containers and organics from parks to these bins, which are serviced by a contractor taking materials for commercial processing. Garbage is collected using the Parks Department garbage trucks and is taken directly to the North Shore Transfer Station for disposal.

To evaluate a potential park waste diversion program, staff worked with a specialized consultant to undertake a preliminary audit of waste in District destination waterfront parks in May 2022. To assess the success and contamination rates of the Phase 1 Program, a second audit took place in June 2023, with the objective of determining the composition of parks recycling bins. The scope was limited to four, three-stream recycling bins in Millennium Park (1), John Lawson Park (1) and Dundarave Park (2), and one two-stream recycling bin on the Centennial Seawalk at 24th Street (1) over a period of two days.

6.0 Analysis

6.1 Discussion

Operational Findings of Phase 1

The introduction of recycling from Millennium Park to Dundarave Park received positive public feedback. During installation, staff were mindful of parks space, aesthetics, and experience; and deployed a reduced quantity of receptacles than originally specified. In total, 36 of the ordered 44 receptacles were deployed. The surplus receptacles were deployed into Horseshoe Bay Park in July 2023 to provide for two-stream recycling in the newly renovated park ahead of the planned Phase 2 implementation.

Phase 1 utilized existing vehicles and required an increase in staff time. Staff modified collection routes and internal processes to undertake three-stream collection without disruption to service levels. Due to the increased weight of food waste, bags require replacement more frequently, well before they are full of volume. Container recycling is challenged by the frequent presence of leftover liquids. Removal of liquids prior to disposal is a message staff will look to convey in updated graphics.

Horseshoe Bay Park is one of the District's busiest parks and requires the handling of large volumes of waste. Servicing requires careful planning with staffing levels and truck availability. Additional time is required to handle and transport waste and recycling for disposal as there is currently no disposal depot in the western area of the District.

Modified Phase 2 Expansion – Two-Stream

Phase 2 originally included expansion to three-stream recycling (containers, organics, and garbage) in Horseshoe Bay Park and Whytecliff

Park. Capital costs include a vehicle, receptacles, and the construction of recycling and organics staging depot adjacent to Gleneagles Golf Course.

Staff recommend continuing with a multi-phased approach for the expansion of the parks recycling program to allow for the application of the findings from each phase.

The primary measures for success of the parks recycling program continue to be:

- Contamination Rate
material that is collected as recycling to actually be recycled
- Diversion Rate
how much material is actually removed from the garbage

Based on findings from Phase 1, staff recommend a slower, modified implementation of Phase 2.

Contamination

Contamination is a key challenge of recycling programs 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 at home. When there is a high level of contamination in a recycling receptacle, all materials may need to be disposed as garbage instead of being recycled.

The June 2023 audit of Phase 1 receptacles indicated high levels of contamination in both the containers and organics streams caused by the poor sorting of materials at the point of collection.

Phase 1 parks recycling: Portion of material contaminated that does not belong in that stream	
Landfill	N/A
Containers	35.1%
Organics	18.2%

There is a higher level of contamination tolerance in the container stream, stemming from mechanical sorting abilities during processing. There is a very low tolerance level for contamination in the organics / food waste stream as mechanical sorting is more challenging. For both streams, staff often observed contamination rates that were higher than what is accepted by commercial recycling and organics processors.

Due to high contamination levels, the containers and food waste streams were required to be disposed of as garbage with higher than desired frequency. As garbage is the least expensive stream to dispose of, there were cost savings to the District.

Diversion

From May to July 2023, 575 kilograms of containers and 1.4 tonnes of food waste were diverted from the landfill. Food waste weighs significantly more by volume than containers and it should be noted the volume of containers diverted from landfill was greater than the volume of food waste. Overall, the diversion of recyclable material from the landfill in the Phase 1 Program has been low. Potential for diversion remains high if lower contamination rates can be achieved.

Modified Phase 2

For 2024, staff are proposing to move forward with a modified Phase 2 that will continue with container recycling in Horseshoe Bay Park and expands to Whytecliff Park. This includes a service vehicle, additional recycling receptacles, and a staging depot to service the western community, and additional staffing for both Horseshoe Bay Park and Whytecliff Park. It would result in more efficient servicing of Horseshoe Bay Park and recycling in Whytecliff Park.

Due to challenges with contamination, staff do not recommend expanding to organics collection in additional parks at this time.

Food waste is a new addition to public recycling and District parks. Audit results demonstrate the public requires further guidance and education to properly sort materials. Staff have determined that additional efforts need to be made to reduce contamination to acceptable levels before expanding organics collection in other parks. Due to the nature of District parks, waste is found to contain mixed picnic garbage, take-out, and surprisingly high amounts of party supplies. Uncontaminated food waste may not prove viable in our waterfront parks.

The recycling of containers is the most established and familiar diversion stream for the public. With alterations to labelling and education, staff are of the opinion that lower contamination rates can be achieved in a shorter timeframe than with food waste. Containers have a high diversion potential and removes high priority single-use plastics from the landfill.

Based on the June 2023 audit data, if sorted correctly by the public, the current containers stream has the potential to divert 78% of the single-use items encountered in park waste.

Overall Single-Use Item Count – June 2023 Audit			
Primary Category	Secondary Category	Count	%
Containers	Refundable deposit beverage containers	345	19.9%
	Refundable deposit glass beverage containers	36	2.1%
	Coffee cups	227	13.1%

	Other drink cups	242	14.0%
	Plastic utensils	105	6.1%
	Plastic straws	254	14.7%
	Plastic fast-food containers	143	8.3%
Recycle BC Materials	Styrofoam foodware containers	59	3.4%
Compostable Materials	Food-soiled paper & Paper takeout bags/containers	217	12.5%
	Paper straws	77	4.4%
	Compostable foodware packaging (plastic)	27	1.6%
Total		1732	100%

To improve contamination rates in 2024, staff will continue to apply and refine industry best practices. Staff are exploring intermediate steps to reduce contamination in the Phase 1 Program. Potential education interventions include the following:

- create “no-liquids” decals to reduce heavy liquid contaminants
- updated compost bin labels to better capture food scraps and compostable items
- additional signage and information how to properly sort coffee cups
- targeted outreach to educate and help parks patrons sort material on-site

To test the success of these interventions, staff will continue to strategically audit materials collected in parks receptacles. Audit results will be used to inform further interventions and future phases.

6.2 Climate Change & 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.

The environmental benefits of expanded recycling in parks are to divert recyclable and compostable materials from the landfill, support long-term behaviour changes, and nominal decrease in greenhouse gas emissions.

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 Community Relations & Communications Department to develop an educational and communication program for park users on the parks recycling 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, Financial Services, and Climate Action & Environment.

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 a modified Phase 2 of the multi-phased recycling program in District of West Vancouver's destination waterfront parks, starting in 2024;
2. staff be directed to incorporate an increase to the Public Realm Refuse Fee in the Solid Waste Utility by an additional \$7.32 per household in 2024 to fund the \$153,000 operating costs for implementation of Phase 2 of the parks recycling program;
3. staff submit capital costs of \$239,000 to implement Phase 2 of the parks recycling program in the District's 2023 Phase 2 capital funding request; and
4. staff report to Council on the results of the Phase 2 parks recycling program 12 months after implementation to seek additional direction on 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 and operational requirements for the proposed multi-phased approach to divert compostable materials (excluding pet waste), containers, and general waste in District of West Vancouver destination waterfront parks and the details on implementing a modified Phase 2 parks recycling program.

Author: 

Jill Lawlor, Acting Senior Manager of Parks

Concurrence: 

Emily Willobee, Senior Manager, Engineering Services

Appendix A: Council report titled Phased Recycling Program in Parks
Presented at the July 11, 2022 Council meeting

This page intentionally left blank

This page intentionally left blank



COUNCIL AGENDA

Date: JUN 17/2022 Item: NO.



NO.

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.

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

Page 5

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	30.4 %
<ul style="list-style-type: none"> • compostable foodware • food soiled paper • food scraps 	
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.

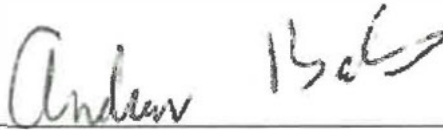
Date: June 28, 2022
From: Andrew Banks, Senior Manager of Parks
Emily Willobee, Senior Manager, Engineering Services
Subject: Phased Recycling Program in Parks

8.0 Conclusion

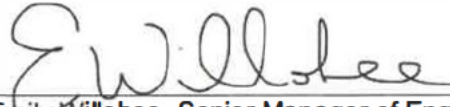
This report outlines the cost of implementing a phased recycling program in the District of West Vancouver's destination waterfront parks and the considerations required for the program to be successful. The operational costs of Stage 1 would be covered through an increase of \$4.63 per household in 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:



Andrew Banks, Senior Manager of Parks



Emily Willobee, Senior Manager of Engineering Services



Concurrence:

Isabel Gordon, Director, Financial Services

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

This page intentionally left blank

This page intentionally left blank