

STREETSCAPE RECYCLING

Consultation on Program Design and Financial Incentive

JULY 22, 2020



RECYCLEBCTM

OVERVIEW

- **Recycle BC Program - Streetscape**
- **Streetscape Recycling Roundtable Series**
- **Program Design**
- **Financial Incentive**
- **Q&A – Clarifying Questions**
- **Process for Submitting Feedback & Next Steps**

PROCESS FOR SUBMITTING FEEDBACK & NEXT STEPS

- Following today's webinar there is a 2-week consultation feedback period
- The feedback period is open until Friday, August 7, 2020
- Please send your comments to us via
consultation@recyclebc.ca
- Specific feedback is essential to this process
- Recycle BC will review all feedback provided and publish a Consultation Report which will include a summary of stakeholder comments and how they were addressed



STREETSCAPE OVERVIEW

STREETSCAPE RECYCLING - DEFINITIONS

- **LOCATION:** Municipal property that is not industrial, commercial or institutional property comprises the following, which are collectively referred to as ‘streetscape’ in Recycle BC’s stewardship plan:
 - Sidewalks which are municipal property, which adjoin buildings in an urban commercial area and which are used for pedestrian traffic;
 - Plazas or town squares which are municipal property and which are available to the public; and
 - Parks which are municipal property.
- **WASTE MATERIAL:** The packaging and paper product category, as per the Recycling Regulation, Schedule 5
- **ACTIVITY:** Collecting and managing products in adherence to the order of preference in the pollution prevention hierarchy

STREETSCAPE RECYCLING – PROGRAM PLAN 2013

- **COMMITMENT:** MMBC will offer a financial incentive to the local government, to service streetscapes in areas that meet the reasonable access criteria
 - Subject to proof of concept through testing effective delivery of streetscape collection system
 - For the provision of services that include PPP collection services, public education, promotion and first point of contact for collection service customers
- **PILOT PROJECTS:** Prior to offering a financial incentive for streetscape collection services, MMBC will conduct audits of PPP and garbage in existing streetscape collection programs and conduct one or more pilot projects in order to develop a preferred approach to streetscape collection and recycling services
- **CONSULTATION:** MMBC will review data from the pilot projects with stakeholders and will consult with stakeholders on its preferred approach

STREETSCAPE RECYCLING – 2017 CONSULATION

- Recycle BC proposed a streetscape model and financial incentive for local governments (LG)
- For applicable programs that met the criteria, Recycle BC would provide a financial incentive of \$400/tonne (= total program cost/te as reported annually)
- This incentive would be fully inclusive of all required activities by the LG
 - To collect, transport, process and market the streetscape PPP
 - Processing of collected material may be single stream or multi-stream, but cannot be combined with garbage and/or organics
 - Recycle BC will not pay a financial incentive for collected material that is not recycled
 - To report the required information to Recycle BC using an online portal: including (in tonnes) collected material and material shipped to end markets (by material type)
 - To audit a representative sample of streetscape collection containers on, at minimum, an annual basis, in order to calculate the amount and type of contamination in the collected material

STREETSCAPE RECYCLING – 2017 CONSULATION

- Recycle BC to provide a streetscape collection container design based on the streetscape pilot findings
- If this design is not used, the following key elements of the design must be present
 - Separate containers for paper, containers, and garbage; organics optional
 - Colour-coded signage and or containers for the separate collection with yellow for paper, blue for containers, black for garbage and green for organics
 - Openings for collection that do not impede the collection of PPP
 - Efficient operational elements for emptying of the containers by the LG collector, and if binners are present in the community easy access for binners for deposit containers
- Recycle BC would develop a Streetscape Statement of Work (SOW) as part of the revised Services Agreement package to be offered effective January 1, 2019
- The model and incentive offer were not accepted by stakeholders

STREETSCAPE RECYCLING – PROGRAM PLAN (2019)

- **COMMITMENT:** Should streetscape produce a reasonable amount of recoverable PPP* and a suitable recycling model be successfully tested, Recycle BC will consult on the program's design and financial offering
 - *Subject to proof of concept through testing effective delivery of streetscape collection systems
- **PILOT FINDINGS:** Recycle BC's pilot studies demonstrated PPP material can be collected but it is poorly sorted, heavily contaminated, wet with residual liquids and unclean with food waste. Hazardous material can also be present.
 - The processing and recovery of PPP from streetscape collection containers in the 2014-2017 pilots proved challenging due to the highly contaminated nature of this material
 - Additional 2018 and 2019 streetscape initiatives did not demonstrate a meaningful change
 - The increasingly strict marketing specifications imposed by changing market conditions such as the China Ban have exacerbated the impact of the contamination problem

STREETSCAPE RECYCLING – PROGRAM PLAN (2019)

- **ROUND TABLE:** A series of meetings in 2019 to plan and discuss a suitable recycling or recovery model and financial incentive offer for streetscape material
 - 31 local governments invited to participate
 - Recycle BC engaged a third-party organization, Alces Technologies Inc., to facilitate the six roundtable sessions
 - Extensive information collection exercises with municipal partners occurred during the series in the form of surveys, polls, and facilitated discussions, and additional research was conducted to inform the ongoing discussions
 - 55-page study report published February 2020 available on Recycle BC's website
http://recyclebc.ca/wp-content/uploads/2020/02/Streetscape-Roundtable-Final-Report_25Feb2020.pdf
 - Consultation to include review of round table findings, proposed streetscape design and financial offer to collectors



**STREETSCAPE
RECYCLING
ROUNDTABLE SERIES**

2019 ROUNDTABLE SERIES

- 27 of the 31 eligible municipalities participated in some form for the duration of the series from May to November 2019
- At least 50% of invited municipalities attended a majority of the sessions
- Sessions held by webinar (3) and in-person (North Vancouver, Burnaby, and Kelowna)
- Prior to the first session, municipalities were invited to complete a pre-workshop survey requesting details related to each municipality's streetscape collection and processing activities. This same survey was circulated again for completion prior to the last session
- Information was also collected during each session via polls, facilitated breakout sessions, surveys or other exercises and queries
- *Thank you to all participants for your time, energy and engagement!*

EXTERNAL JURISDICTIONAL SCAN - FINDINGS

- While recognizing a burgeoning cultural shift toward wanting to collect recyclables in public areas, four challenges emerged that apply globally for streetscape recycling
 1. Low Accountability – public space recycling stations have the least amount of personal accountability for users which makes marketing efforts and behaviour change tools challenging to implement
 2. Outdoor-related Factors – since stations are outdoors they are susceptible to weather conditions, wildlife impact, graffiti, and increased wear and tear over time
 3. Challenging Material and Product Types – more difficult to recycle items are common on-street
 - Beverage cups contribute to wet recycling materials since many people discard cups containing liquids
 - Containers can have food waste which reduces quality of everything in the collection container they come into contact with
 4. Selective Global Markets – global markets have become stricter and less tolerant of contaminants
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CURRENT PRACTICES AND OPPORTUNITIES

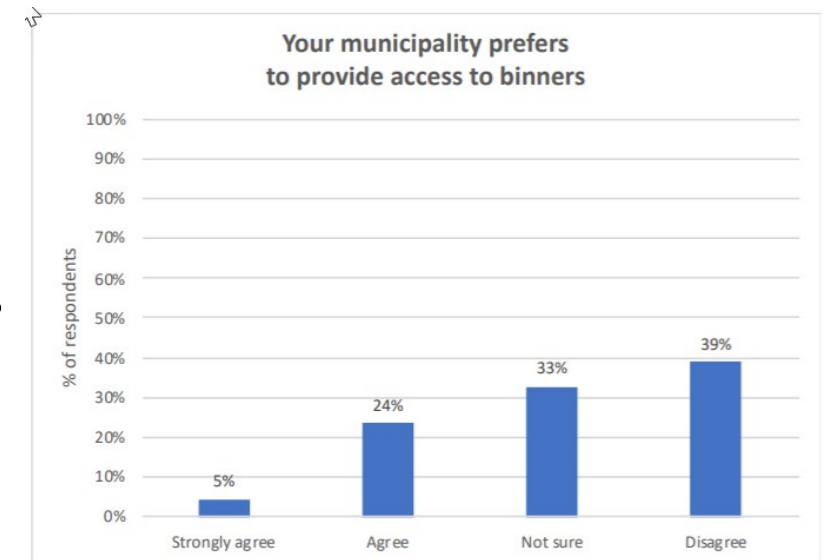
- Current practices and opportunities for streetscape recycling were discussed
 - Currently a mix of receptacle types and configurations are in use by municipalities with 10 variations reported by participants
 - Operational desire for municipalities to customize stations for street appearance and function
 - Colour-coding is fairly consistent across municipalities, variety signage (words, icons, instructions)
 - Currently municipalities send collection to transfer stations and then material recovery facilities
 - If materials are clean enough, they may be sent to works yards to be combined with other civic site recycling. How to handle glass containers, foams and plastic film is unresolved
 - There are information gaps around how much collected PPP is too contaminated to be processed as recycling and how much streetscape recycling material goes to market successfully
 - Audits showed dual stream had reduced contamination which may increase the chance of recyclables getting processed and baled for recycling. Given liquid contamination issues that result in moldy paper, minimizing storage time was recommended by participants

MUNICIPAL PREFERENCES AND PRIORITIES

- **INFRASTRUCTURE:** Broad consensus around providing a similar user experience in jurisdictions with streetscape recycling which embeds best practices for optimizing capture and reducing contamination. Examples include:
 - Recycling station design consisting of multiple receptacles that meet design guidelines for sizing, durability, placement, and other key elements
 - Colour-coding by receptacle and signage type
 - Similar branding for approach and point-of-use signage related to image and product (e.g., coffee cup, newspaper)
 - There was discussion around how to best determine the number of stations needed to maintain resident satisfaction and abate litter successfully
 - A desire was expressed for flexibility on what material streams could be established depending on curbside collection system, station location, organics and dog waste
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MUNICIPAL PREFERENCES AND PRIORITIES

- **COLLECTION:** – Municipal representatives clearly stated the importance of being able to select and procure their own streetscape recycling stations
 - To align with existing street furniture, meet aesthetic requirements for their community, and harmonize with operational needs
 - Several reinforced the expectation that the financial incentive considers capital costs for stations
 - Operationally, having autonomy to optimize collection schedules for efficiency, balance right sizing containers with pick up frequency, and supervise staff and/or contracts were all considered priorities
- **BINNERS:** Access for bidders did not have alignment.



MUNICIPAL PREFERENCES AND PRIORITIES

- **PROCESSING:** – Given the smaller tonnages resulting from streetscape recycling compared to curbside collection and civic site recycling, municipalities had concerns about the need to track how much material is collected and processed, and wanted support from Recycle BC for consistency, quality control, and to inform contract management
 - It was recognized that pre-sorting materials could play a role in supporting processing
 - There was consensus that avoiding financial penalties associated with contamination was a priority
 - Cost, processing locations, and distance to processing facilities were other questions that arose during roundtable discussions
 - There was a desire to seek a cohesive, convenient and even playing field for all municipalities for realistic processing options

MUNICIPAL PREFERENCES AND PRIORITIES

- **END FATE:** Questions arose related to how the end fate of materials could be tracked sufficiently for reporting purposes given the smaller volumes that meld with other commercial materials being processed
 - The importance of being transparent and avoiding greenwashing was understood
 - It was unclear to municipalities on how audits or other measurements would be conducted, and by whom, and how the cost would be handled
 - It was noted that municipalities do not generally have direct oversight for commercial processors

RECYCLE BC PRIORITIES

- **INFRASTRUCTURE:** Use best management practices to optimize capture and minimize contamination
- **COLLECTION:** Tonnage provided (scale weight)
 - Important to determine how much material is being collected for reporting and payment
- **PROCESSING:** Maintain separate processing
 - Given the higher level of contamination compared to the curbside, multi-family or depot collection programs, it is a priority to maintain the material quality from the curbside, multi-family and depot programs and maintain separate processing for streetscape materials
- **END FATE:** Transparency and reporting
 - As part of program compliance, it is important for Recycle BC to have transparency in reporting on the end fate for the material collected (e.g., managed by recycling, recovered as engineered fuel, used for energy from waste **streetscape only*, or if not recyclable or recoverable, disposed via landfill)

RECYCLE BC CONSIDERATIONS TO INFORM PROGRAM

○ **CONTRACTUAL**

1. Eligibility
2. Scope of Service & Term
3. Service Level Standards
4. Reporting & Payment

○ **OPERATIONAL**

1. Collection: Keeping material collected from streetscape recycling sources separate from core Recycle BC program (curbside, multi-family and depot collection)
2. Processing & End of Life: Transparent disclosure of how materials are managed
3. Reporting: Tonnage of streetscape recycling material collected and managed, plus other standard reports such as contamination and GHG emissions (at a common frequency)
4. Payment: Financial incentive offer



PROGRAM DESIGN

PROOF OF CONCEPT

- Much of the packaging and paper product collected through streetscape programs is extremely contaminated and results of the Round Table survey showed that in some municipalities as much as 100% of the material collected through streetscape is sent to landfill and, on average, local governments recycle only a very small amount
- Streetscape represents a high greenhouse gas emission-intensive process as a very small volume of materials is transported to multiple locations only for the majority to end up in landfills
- Calling streetscape recycling exposes it to allegations of greenwashing, negatively affecting the reputation of the program and diminishing the confidence that all BC residents have shown to date

PROOF OF CONCEPT

- Streetscape receptacles can have benefits to local governments in litter abatement, collection of bottles & cans with little contamination, and meeting public expectation for a green community
- Streetscape recycling of packaging and paper product currently has no proven net-positive environmental outcome
- The following program design is proposed in order to have a measurable assessment of streetscape PPP recycling and a financial transaction for services that is verifiable

DATA INPUTS

- Collected tonnes – actual as reported, estimated or extrapolated from data set
 - PPP collected tonnes separate from garbage, organics and other collection receptacles in station
 - Municipal costs reported
 - Operational – by type if available (collection, haulage, processing, maintenance, P&E, admin)
 - Capital – by station type, number of receptacles, with installation costs if available
 - Contamination rate & historical municipal studies and audits
 - Streetscape infrastructure details and collection frequency information
 - Eligible local government current program status: a) with streetscape recycling, b) on-street garbage only, c) no community program
 - Round Table survey, poll and breakout information
 - West End pilots – bin generation, material composition, behavioural study findings
 - Assumptions & Analysis
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OTHER CONSIDERATIONS

- Standards
- Best practices
- Efficiency & effectiveness
- End of Life options
- Provincial mapping of collectors
- GHG emissions and other environmental outcomes
- Equitable design and payment model
- Evaluation opportunity (term length)

ELIGIBILITY

- Local government collectors
 - To service streetscape in areas where LGs operate litter collection systems - run in tandem with streetscape recycling collection, either beside the streetscape recycling containers or integrated within a streetscape collection container/pod
 - The provision of a streetscape garbage collection service is critical to the operation of a streetscape PPP collection service
- Reasonable access criteria
 - Urban commercial areas with business activities that generate large amounts of PPP within municipalities with a population of 20,000 or more and a population density of 200 or more people per square kilometre
 - Waste PPP that is not otherwise collected by retailers, surrounding office buildings or private waste management services i.e., a high-density residential/commercial mixed use area with significant foot traffic and local government garbage/recycling collection containers

PROPOSED PROGRAM DESIGN - SCOPE

- Financial incentive to the local government
 - For the provision of services including PPP collection and recycling services, public education, promotion and first point of contact for collection service customers
- Financial Incentive only – no direct service option
- Financial incentive intended to finance a reasonable cost of recycling PPP on-street
- Contractual partners only include those eligible, interested and with a signed Master Services Agreement with Recycle BC

PROPOSED PROGRAM DESIGN

○ INCLUSIVE SERVICE:

- What: the provision of services includes PPP collection and recycling services including end fate
- Why:
 - Geography – local management of highly contaminated material with liquid and food spoilage is better than haulage and consolidation in a waste shed for limited recovery of recyclables
 - Variability – collection location, streams, receptacles, service frequency, and other operational details are best served by local government decisions
 - Separation – high contamination levels create unmarketable material that must not impact Recycle BC's residential recycling program and its ability to market clean recyclables
 - GHG Emissions – GHG impact can be lessened with on-the-ground decisions on recoverability
 - Data Gaps – very limited information on program collection and processing costs, collection tonnage and end-of-life disposition to inform any new model

PROPOSED PROGRAM DESIGN

○ PER TONNE UNIT OF MEASURE:

- What: Tonnage (actual scale weight) of streetscape recycling material collected
- Why:
 - Transaction – a payment measure that is verifiable and auditable and equal across all streetscape collectors
 - Variability – collection location, streams, receptacles, service frequency, and other operational details at local government’s choice do not provide a standard unit of measure for payment
 - Focus on Outcomes – tonnage allows for assessment of the program’s performance in comparison to other collection channels (i.e., cost/te, tonnes managed by recycling, etc.)
 - Opportunity – tonnage measure allows for contamination impact considerations
 - Data Gaps – very limited information on collection tonnage and end-of-life disposition by material type as basis for any unit of measure

PROPOSED PROGRAM DESIGN - CONTRACTUAL

○ TERM

- What: Proposal is for a two-year services agreement
- Why: To evaluate streetscape with actual data on tonnage collected and managed, contamination levels, cost elements, end fate and environmental outcomes (including GHG emissions) to determine proof of concept result

○ SERVICE LEVEL STANDARDS

- What: Mandated elements, as well as guidelines for best practices that are suggested but not required, inclusive of PPP collection and recycling services, public education, promotion and first point of contact for collection service customers
- Why: To have standards for the streetscape program across the province while having the ability of each streetscape collection partner to cater their individual municipal programs to their unique operational needs

PROPOSED PROGRAM DESIGN - CONTRACTUAL

○ MANDATED

- PPP collection and recycling services, public education, promotion and first point of contact for collection service customers
- Colour-coded signage and/or receptacles when separate collection with yellow for paper, blue for containers, black for garbage and green for organics with clear visually-based signage that is similar to, if not the same as, residential recycling
- Keep material collected from streetscape recycling sources separate from core Recycle BC program (curbside, multi-family and depot collection)
- Audit a representative sample of streetscape collection containers on, at minimum, an annual basis, in order to calculate the amount and type of contamination in the collected material
- Other key elements include focus on reducing contamination (targets), promotion and education to improve capture and accuracy rates, and continuous material management improvement to move streetscape end fate up the pollution prevention hierarchy

PROPOSED PROGRAM DESIGN - CONTRACTUAL

○ SUGGESTED

- If a recoverable amount of PPP can be collected on-street, separate receptacles for paper, containers, and garbage; organics optional for soiled paper
- For unrecyclable paper and packaging collection, diversion from landfill to recovery of energy moves the material up the pollution prevention hierarchy
- Best practice access elements such as openings for collection that do not impede the collection of PPP and if bidders are present in the community easy access for bidders for deposit containers
- Efficiency measures such as optimizing collection schedules and balancing receptacle size with pick up frequency (influences impact on GHG emissions)
- Continued sharing of streetscape learning amongst local government collectors for adoption of effective practices and a harmonized community experience across the province

PROPOSED PROGRAM DESIGN - CONTRACTUAL

○ REPORTING & PAYMENT

- What:
 - Tonnage (actual scale weight) of streetscape recycling material collected
 - Transparency in reporting on the end fate for the material collected, by material type
 - Composition and contamination reporting on a minimum annual basis
 - Greenhouse gas emissions reporting on a minimum annual basis
 - Financial incentive payment rate inclusive of all services required
- Why:
 - As part of program compliance, Recycle BC must report on key program metrics with non-financial as well as financial outcomes audited annually by a third party accredited firm
 - Recycle BC will be engaging in a commercial transaction with streetscape and therefore requires measured outcomes in return for payment



FINANCIAL INCENTIVE

DATA COLLECTION RESULTS

- **SURVEY INFORMATION:** 15 participants provided data for the Round Table study (14 local governments + Recycle BC). Unfortunately not all data points were in the same categories and only 2 LGs + Recycle BC provided information for all categories

Requested Category	# of Responses	Notes
Total operating costs	8	Of these, only 1 LG + Recycle BC reported collection/processing separate from total costs
Capital costs per station	10	# of stations was provided by 12 participants
Collection tonnage	8	Of these, 4 provided actual tonnes, 1 partial tonnes and 3 tonnage estimates
Contamination/non-recyclable %	9	5 multi-stream (actual), 4 single stream (estimates)
Collection frequency & container size	11	Of these, 4 provided ranges in collection frequency rather than a fixed schedule

DATA COLLECTION RESULTS

- **SURVEY FINDINGS:** 9 multi-stream and 6 single stream collection programs reported data with a range in size from 5 recycling stations to 502, so extrapolation was challenging due to large variety and limited data supplied

Requested Category	# of Responses	Response Range
Total operating costs	8	From \$5k to over \$300k per year Cost per tonne from \$70 to >\$8000; Average \$3800/Te
Capital costs per station	10	From \$1700 to over \$7000 for on-street furniture/station
Collection tonnage	8	Actuals from 20 – 80 Te/Year & estimates from 6 – 500 Te/Year Streetscape Te as % PPP curbside = 0.32% weighted average
Contamination/non-recyclable %	9	Multi-stream average 18% in paper, 33% in containers Single stream average 87%
Collection frequency & container size	11	Frequency range from 2x/day/x7days/week to bi-weekly Container size range from 75L to 220 L

PROPOSED FINANCIAL INCENTIVE RATES

- **CONCLUSION:** Based on limited collection stream performance information (tonnage, capture rate, contamination/non-recyclables) and available cost information, the following incentive rates (inclusive) are reflective of extrapolated study findings to finance the cost of streetscape service in today's context

Collection Type	Incentive Rate
Single Stream	\$1000/Te
Multi-Stream	\$4000/Te

- Capital – Recycle BC is not offering to provide on-street furniture for the collection of streetscape recycling
 - Contamination & end fate – Recycle BC will not apply SLFC for contamination and will provide payment for all end fates (including landfill) for this initial term
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Q & A

CLARIFYING QUESTIONS

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