MORRISON HERSHFIELD

December 17, 2019

Erin Blaney, BSc., EPt
Environmental Services Coordinator
300-4545 Lazelle Avenue
Terrace, B.C.
V8G 4E1
Email: eblaney@rdks.bc.ca

Dear Ms. Blaney:

Re: System Efficiency, Reduce and Reuse

Under the Environmental Management Act, regional districts are required to have a solid waste management plan (SWMP), which must be developed following the solid waste management planning guidelines provided by the Ministry of Environment and Climate Change Strategy (the Ministry) for content and process.

The Regional District of Kitimat Stikine (RDKS) is in the process of developing a new SWMP. The planning process was initiated in 2017 and steps 1 and 2 of the planning process were completed in 2018. This resulted in the formation of the Public and Technical Advisory Committee (PTAC), assessment of the current system, development of the consultation plan and development of six technical memos covering specific topics. Each of the six technical memos contained a wealth of information that was considered by the PTAC. In November 2019, Morrison Hershfield (MH) was commissioned to provide consulting support to continue developing the SWMP for the RDKS.

MH initiated the project with a thorough background review of the work completed to date and of the feedback gathered from PTAC on specific memo topics. Based on this review it was apparent that consolidation of some the documents would be beneficial to the SWMP development process and the RDKS. The memo attached to this letter is the result of that review and consolidation of potential strategies and actions that the RDKS may want to take on. MH has not made any changes to the six technical memos issued prior to our involvement[1].

We understand that the RDKS places a high importance on improving the operational efficiency of the current solid waste system. This is highlighted in Technical memo 1: Efficiency within RDKS Solid Waste Management Functions (February, 2019) and the main focus of the new SWMP is to improve operational efficiency. System efficiency applies to all solid waste management functions and levels of the waste hierarchy, and the original technical memo has therefore been left as a standalone document. Efficiency and system performance will be

[1] All technical memos can be accessed at www.rdks.bc.ca/content/solid-waste-management.

applied to all of Morrison Hershfield's memos and incorporated into any strategies developed and assessed.

As a first deliverable MH is providing a consolidation memo for the summary of reduce and reuse options to consider for inclusion in the solid waste management plan. This memo was developed by MH and consolidates Technical Memo 2 - 4 and part of Technical Memo 6:

- Technical memo 2: Reduction and reuse options
- Technical memo 3: Reduce single use items
- Technical memo 4: Food waste reduction
- Technical memo 6: Building deconstruction vs. demolition

This consolidated memo is not intended to cover and repeat all information provided in the previous technical memos but rather to focus on the main strategies and action items. The memo includes new information relevant to future strategies and addresses feedback and comments received from the PTAC. The content of Technical memo 5: Waste Management Space Requirements for New ICI Construction, will be addressed in the context of recycling in the next memo (to be presented at the PTAC meeting in February 2020). Optional strategies are highlighted in the consolidated memo. Through interaction with the PTAC, the aim is to narrow down the waste reduction and reuse options in order to articulate Preferred Options in a report that forms the basis of the draft SWMP.

The consolidated memo will be presented to the PTAC on January 7, 2020.

Sincerely,

Veronica Bartlett, M.Sc.
Solid Waste Planner, Environment
Morrison Hershfield Limited

MEMORANDUM

MORRISON HERSHFIELD

TO:	Erin Blaney, Regional District of Kitimat Stikine	**FROM:**	Veronica Bartlett, Morrison Hershfield
FROM:	Veronica Bartlett, PM	**PROJECT No.:**	190497600
RE:	Summary of Reduce and Reuse Options to Consider for Inclusion in the Solid Waste Management Plan	**DATE:**	December 17, 2019

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Under the Environmental Management Act, regional districts are required to have a solid waste management plan (SWMP), which must be developed following the solid waste management planning guidelines provided by the Ministry of Environment and Climate Change Strategy (the Ministry) for content and process.

The Regional District of Kitimat Stikine (RDKS) is in the process of developing a new SWMP. The planning process was initiated in 2017 and steps 1 and 2 of the planning process were completed in 2018, resulting in the formation of the Public and Technical Advisory Committee (PTAC), assessment of the current system, development of the consultation plan and development of six technical memos covering specific topics. The PTAC had four meetings in 2019 during which four out of the six Technical memo topics were covered. Review was done of the Reduction and Reuse options presented in Technical memo 2.

Each of the six technical memos contains a wealth of information that was considered by the PTAC. In November 2019, Morrison Hershfield (MH) was commissioned to provide consulting support to continue developing the SWMP for the RDKS.

This memo provides a consolidation of the options presented to the PTAC that relate to the efforts to reduce and reuse waste. The purpose is not to present the same information to the PTAC, but to focus on the main strategies and potential actions the Region can take. The options for reduce and reuse were consolidated based on feedback obtained at previous PTAC meetings as well as public feedback gathered via the public survey conducted in March 2019.

MH has included information on federal and provincial directions aiming to address the plastics issue and the reduction of single use items, which were announced during the summer of 2019. These initiatives may impact the Region’s management options for single use items.

CONTEXT

Reducing waste generation is fundamental to decreasing the environmental, social, and financial impacts of waste. It was evident that the 900 citizens who completed the RDKS Solid Waste Survey in March 2019 regard the reduction and reuse of resources as very important for the Region. Reoccurring opinions were the need for less packaging, fewer disposable items, and better ways to recover reusable items.

The RDKS already promotes waste reduction and reuse of resources though outreach and education programs and by supporting non-profit thrift stores by reimbursing tipping fees payed on unsuitable donations received.

In Canada the annual waste generation per person from residential sources increased from 358 kg to 414 kg between 2002 and 2016. The average annual disposal per person increased from 269 to 282 kg over the same time period, meanwhile the amount of residential waste diverted through recycling and organics diversion almost doubled.

The provincial Recycling Regulation is the enabling legislation for BC's Extended Producer Responsibility (EPR) programs. The focus of the regulation requires producers to be responsible for their products over their entire lifecycle; in practice this means that producers pay to set up and operate recycling systems. However, legislation does not require producers to focus on reducing or reusing the waste generated.

Extended Producer Responsibility (EPR) *is a provincial policy tool that aims to shift the responsibility for end-of-life management of products (physically and economically) to the producer and consumer, and away from local governments. This policy is intended to create an incentive for producers to include environmental considerations in design of products.*

EPR programs in BC are mandated by Recycling Regulation 449/2004, under the Environmental Management Act.

Producers of designated products often appoint a stewardship agency to collect EPR products.

So far waste reduction and reuse initiatives tend to address small, incremental changes to people's attitudes and behaviours, which set the stage for long-term changes in our consumption practices. Reduced consumption will naturally result in reduced waste generation. However, it is extremely difficult to quantify the impacts of individual reduction and reuse initiatives on an annual basis; as such, no diversion estimates are provided for the initiatives outlined in this memo.

In terms of the reduction and reuse of waste, the RDKS's role can be to regulate, educate and facilitate.

REDUCTION

This section provides a summary of the five potential new strategies and initiatives that aim to further reduce waste generation.

STRATEGY 1. LOBBY FOR REDUCTION OF SINGLE-USE ITEMS AND PACKAGING

In recent years many local and regional governments across Canada and in BC have been investigating and implementing policies to limit the amount of single-use items being generated and that require management through curbside collection, litter management in public spaces, and disposal. Single-use items include products often made out of plastic, such as shopping bags, straws, utensils and take-out containers, which are intended to be used only briefly before they are thrown away or recycled. Although the waste composition study conducted in 2017 did not specifically identify single-use items, it showed the quantity of several categories of plastics in the landfilled waste. It is estimated that up to 13% of the total waste stream could be single-use plastic items for which use could have been avoided or that could have been directed to recycling facilities.

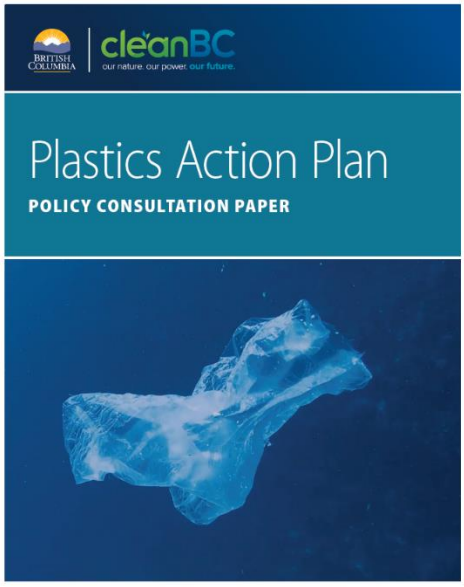
Plastic waste is a leading source of environmental pollution and poses a serious threat to the health of our oceans, waterways and well-being. Paper and cardboard products do not persist in the environment, however their production consumes non-renewable resources and is energy intensive. Since both plastic and non-plastic single-use items have environmental consequences the reduction of single-use items and packaging is important.

Many Canadian municipalities including Victoria, Vancouver, Montreal and Toronto have begun implementing restrictions on the use, distribution and sale of certain single-use items. However, in July 2019 the B.C. Court of Appeal ruled that the City of Victoria's proposed ban on single-use plastics is primarily environmental legislation that require the approval of the Minister of Environment[1].

The National Zero Waste Council recently pointed out that restrictions enforced at a municipal level are problematic for retailers and industries which are operating across many different locations with different requirements[2]. Wherever possible, the National Zero Waste Council recommended these should to be coordinated or harmonized at a provincial or federal level.

In June, 2019, the Prime Minister announced that the Government of Canada is taking additional steps to reduce this type of plastic waste coming from the use of single-use items. In particular, the government is committed to partnering with businesses and other levels of government to:

- ban harmful single-use plastics as early as 2021, where supported by scientific evidence and warranted, and take other steps to reduce pollution from plastic products and packaging, and
- work with provinces and territories to introduce standards and targets for companies that manufacture plastic products or sell items with plastic packaging so they become responsible for their plastic waste.



The first phase in the Canada-wide Action Plan on Zero Plastic Waste involve priority areas including extended producer responsibility, identifying sustainable alternatives to single-use items, national performance requirements and standards, incentives for a circular economy, infrastructure and innovation investments and public procurement and green operations[3].

In July 2019, The BC Ministry of Environment and Climate Change Strategy (the Ministry) issued the Plastics Action Plan[4], a policy consultation paper on how the province is intending to address plastic waste. The Ministry proposes to expand existing EPR programs by including single-use items and packaging-like products[5] under the Recycling Regulation to ensure that these items are being managed responsibly through EPR programs prior to any potential federal bans coming into force (estimated for 2021 and beyond).

The RDKS provided feedback to the Ministry on the Plastics Action Plan and commented that restrictions or bans on the sale or use of single-use items would most effectively be executed at provincial and federal levels to ensure consistencies for consumers and producers.

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[1] https://www.theglobeandmail.com/canada/british-columbia/article-bc-municipalities-intent-on-banning-single-use-plastic-bags-asking/
[2] http://www.nzwc.ca/Documents/RegulatoryApproachesforPriorityPlasticWastes.pdf
[3] https://www.ccme.ca/en/current_priorities/waste/index.html
[4] https://engage.gov.bc.ca/app/uploads/sites/121/2019/07/CleanBC_PlasticsActionPlan_ConsultationPaper.pdf
[5] The packaging-like products are materials that are sold as a product but are in turn used as packaging, such as reusable plastic containers, freezer/sandwich bags, canning jars, wrapping paper, and moving boxes. Single-use items are materials that are not necessarily packaging but similarly serve a one-time purpose, such as plastic straws, stir sticks, cutlery and 'disposable' items purchased in multiples, such as plates, bowls, cups, and party supplies that could be easily diverted in a manner similar to packaging and packaging-like products.

Possible options to incorporate in the SWMP include:

1A. Lobby for the implementation of a provincial EPR program for single-use items and packaging-like products via suitable organizations (e.g. the Union of British Columbia Municipalities, the North Central Local Government Association, the Provincial Recycling Roundtable that govern recyclable materials and products in association with EPR programs).

1B. Lobby the Federal government to enact regulations and regarding the distribution of single-use items.

STRATEGY 2. SUPPORT MEMBER MUNICIPALITIES WITH IMPLEMENTATION OF BYLAW(S) TO ELIMINATE THE DISTRIBUTION OF SINGLE-USE ITEMS

If supported by the Ministry, the RDKS can support member municipalities with developing and implementing reduction strategies and bylaw(s) to eliminate the distribution of single-use items. The support could include providing educational information and outreach resources to implement bylaws.

Possible options to incorporate in the SWMP include:

2A. Support member municipalities with developing and implementing reduction strategies and bylaw(s) to eliminate the distribution of single-use items, provided it is supported at a provincial level.

STRATEGY 3. ENCOURAGE VOLUNTARY REDUCTION OF SINGLE-USE ITEMS BY BUSINESSES

Although this is a priority area for the Ministry, it will take time to develop provincial measures to reduce the distribution and use of single-use items. Meanwhile businesses can be encouraged to voluntarily change their distribution practices and find alternatives to using single-use items. Outreach can include organizing a workshop in which the RDKS can facilitate a discussion on the issue and find common solutions. Outreach material from the RDKS can also include guidance on how organizers of large events can eliminate the use of single-use plastics and promote alternatives. The RDKS has been discussing the option to support member municipalities in developing a zero waste guidance document and other material to be made available to organizers of events such as farmers markets, smaller music festivals and the annual trade fairs.

There may be interest amongst businesses to set-up a local exchange of dishware, containers or cups to reduce the use of single-use takeaway cups. Food safety needs to be carefully considered and the RDKS may want to coordinate with Northern Health to develop a guidance document for dish share programs or bring your own container, or so called BYOC programs.

Possible options to incorporate in the SWMP include:

3A. Encourage businesses to voluntary commit to a reduction of the use of single-use items by developing and implementing outreach campaigns.

3B. Support member municipalities to encourage events free of single-use items.

Possible options to incorporate in the SWMP include:

3C. Collaborate with Northern Health to develop a guidance document how to set up a BYOC program.

STRATEGY 4 ADOPT A PREFERENTIAL PURCHASING POLICY FOR GREEN PROCUREMENT THAT SUPPORTS REDUCE, REUSE AND THE USE OF RECYCLED CONTENT

There are many examples in Canada of local governments using their purchasing powers to promote reduction and reuse of waste materials and encourage a circular economy with increased use of recycled materials in purchased products. The Federal Government released a Greening Government Strategy[6] in 2019 that included waste management elements. The strategy includes steps to better manage the use and disposal of plastics in its operations.

The RDKS and its member municipalities purchase significant volumes of products. Recognizing the influence that government can have within the marketplace, the RDKS may want to commit to reducing products such as single-use plastic items in its operations. Though no official policy exists, the RDKS is currently aiming to "walk the talk" by, for example, using reusable dishware at meetings and events. To help support the markets for recycled products, the RDKS can also include procurement requirements that demand a minimum amount of recycled content in material purchases, where the quality required will not be compromised. The RDKS can also develop a procurement policy that requires contractors used by the RDKS to have environmental sustainability built into their business models.

Possible options to incorporate in the SWMP include:

4A. Adopt a preferential purchasing policy for green procurement that supports the 3Rs (reduce, reuse and recycling) and encourage member municipalities to follow its example.

STRATEGY 5. PROMOTE WASTE REDUCTION IDEAS THROUGH TARGETED CAMPAIGNS

Metro Vancouver has developed waste reduction campaigns for "Create Memories, Not Garbage" and for textile waste reduction through the Think Thrice campaign. These are available for other local governments to use at no or very low cost.

In British Columbia, the MOE has entered into an agreement with the national "Love Food Hate Waste" Campaign to provide free access to BC Regional Districts and Municipalities. Food waste prevention toolkits for residents and the ICI sector have been made available via the Ministry's website with many resources. The RDKS has already signed on for this initiative and promotion of the campaign will begin in early 2020.

Possible options to incorporate in the SWMP include:

5A. Promote waste reduction ideas using some of the readily available campaigns. The campaigns can be promoted within the RDKS with support from member municipalities, and/or by non-profit groups.

[6] https://www.canada.ca/en/treasury-board-secretariat/services/innovation/greeninggovernment/government-canada-actions-plastic-waste-federal-operations.html

There are many different models for reuse facilities which can be divided into three categories based on RDKSs desired involvement:

- The RDKS could build and operate share sheds such as done by the Peace River Regional District and Sunshine Coast Regional District.
- The RDKS could collaborate with the private industry where, for example, the RDKS could provide the site for privately operated facility. Examples of this model are the Re-Use-It and Re-Build-It Centers in Whistler, BC and the Foothills Salvage & Recycling Society Reuse Store in Oktoks, AB.
- The RDKS could provide administrative support such as helping not-for profit organizations identify suitable sites, connecting volunteers with potential donors, helping volunteers and staff navigate bylaws and other regulations, or promoting the facilities through its communication channels.
- The RDKS could promote local reuse options through its website. A directory of reuse options and facilities could be set up and event promoted through the event calendar.

The RDKS Waste Regulation Bylaw 671 and 688 state that “no person shall remove, scavenge or salvage Solid Waste from a Waste Management Facility except with the prior written approval of the Solid Waste Services Coordinator”. This limits reuse of solid waste at the RDKS waste management facilities. However, recognizing the strong public support for more reuse options, the RDKS intends to explore different options and to support and facilitate the private sector or non-profit entities in launching and operating reuse facilities.

Scavenging is prohibited from the active landfill face under the BC Landfill Criteria. Scavenging is defined as “unauthorized and/or uncontrolled removal of MSW or recyclable material from a landfill site” under the Criteria and does not encompass material recovery within the buffer zone of the landfill site. Hence, separation of reusable goods and materials or the operation of a reuse store or share shed is not prohibited under the criteria which allows the RDKS to amend their Solid Waste Regulation Bylaw should it be preferred and deemed financially and practically feasible to operate or facilitate operation of a reuse facility at their current waste management facility(ies).

Operation of a share shed is only recommended at manned facilities. Items would need to be approved and/or inspected by attendant prior to donation. This screening would be necessary to ensure health and safety and to avoid illegal dumping. The benefit of such a program is that it is free to use, and accessible to anyone. Drawbacks with share sheds include additional RDKS staff time, potential need for bylaw amendment and limited diversion achieved as bulky items unlikely would not be accepted. To promote reuse of bulky items, the share shed could be equipped with a “share board”, where visitors could advertise larger items for sale or donation on a notice board that is kept up-to date.

Feedback from the April 16, 2019 PTAC meeting suggests that Skeena Bakery and Skeena Supported Employment Society are willing to implement a reuse store in Hazelton. This should be investigated further to gain an understanding of the level of involvement requested of the RDKS.

For any of the options the RDKS should consider the monetary investment and staffing allocation that may be required.

Possible options to incorporate in the SWMP include:

6A. Assess the feasibly to operate a share shed, including the liability and resource requirement.

6B. Consider allowing space at the waste management facilities for private collection of reusable goods to be sold at separate location.

6C. Partner with or support private industry in the operation of a reuse store, such as Skeena Supported Employment Society.

6D. Support and promote existing reuse organizations, by, for example, including those in Dease Lake and Kitimat not currently included in the RDKS directory of reuse options.

6E. If deemed necessary to support reuse initiatives, and considering public safety, amend the RDKS Solid Waste Regulation Bylaw to facilitate the reuse of waste materials at the current waste management facilities.

STRATEGY 7. SUPPORT REUSE AND/OR REPAIR EVENTS

An alternative to a permanent, physical facility is to host, support or promote reuse and repair events throughout the Regional District. There is strong movement toward reuse, repair and community sharing of resources throughout BC.

Reuse and repair events could be hosted in any community within the Region, with or without involvement of the RDKS. There are several different models for events that have been successful elsewhere in British Columbia. Many of these events are either organized or sponsored by local governments.

Sale or trading of goods can be done in many ways. Flea markets or trunk sales are two versions of large garage sales where several sellers set up for a day or two and sell their gently used, but no longer wanted items. The “Junk in the Trunk” sale in Prince George and the trunk sale in the Regional District of Central Okanagan (RDCO) are two examples of such events. The RDKS could support such events through, sponsorship, advertisement or by providing a site (e.g. parking lot or community center). Sellers generally pay a small fee which is used to cover setup and take down, as well as waste management during the event.

Annual or bi-annual reuse events could be organized by the RDKS with limited involvement or investment. For example the Squamish Lillooet Regional District (SLRD) and City of Nanaimo organize reuse events where all items are free to residents. Donation are collected in one location at the SLRD event whereas donations are set out at the curb in Nanaimo. Donations not claimed at the SLRD event are managed by the regional district whereas Nanaimo residents are responsible for bringing unclaimed items back to dispose or recycle them properly. If reuse events were to be hosted at any of the RDKS waste management facilities consideration must be given to the applicable solid waste bylaws which may need to be amended.

So called “repair cafés” are becoming popular. The premise of the events is that community members bring broken things from home to be repaired by volunteers, for free. Items accepted could include small appliances, textiles, small pieces of furniture, electronics and bicycles. Repair cafés also aim to teach community members basic repair skills so that these activities and thoughts are incorporated into everyday life. Repair Café Foundation is a not-for-profit organization founded in the Netherlands currently offering 1,500 workshops worldwide. A café starter kit is offered for a small, voluntary fee, which is aimed to help promote and organize an event or event series. Repair cafés are organized at

the Smithers Public Library as well as in Okotoks, AB, the Regional District of Central Okanagan, BC, and throughout the lower mainland.

Possible options to incorporate in the SWMP include:

7A. Organize, sponsor or promote reuse through local flea markets or trunk sales.

7B. Apply for provincial or federal funding to run a pilot for a regional reuse event to assess community uptake and feasibility for a wider implementation Plan. The pilot can identify if items are most suited to be collected at the curb or at set locations such as waste management facilities.

7C. Promote local repair cafés and similar events through sponsorship or marketing.

STRATEGY 8. DEVELOP A CONTRACTOR'S GUIDE TO REDUCTION, REUSE AND RECYCLING

The RDKS published a brochure in 2017 that provides information on Construction Site Waste Management. The brochure focuses on recycling by listing which materials are prohibited and restricted from disposal at RDKS facilities, and alternatives to disposal for those materials. Reduction and reuse are not addressed in the brochure.

The current brochure could be updated or a new one developed to promote reduction and reuse. An updated guide could also highlight the opportunity for reuse during renovation, construction and demolition by both contractors and homeowners, granted these opportunities are available in the local community.

Possible options to incorporate in the SWMP include:

8A. Update the current information brochure to include reduce and reuse options for renovation, construction and demolition contractors and home owners.

STRATEGY 9. REUSE OF CONSTRUCTION AND DEMOLITION MATERIALS THROUGH DECONSTRUCTION

Demolition of buildings generates large quantities of waste often destined for landfilling. The alternative -building deconstruction is the systematic dismantling of a building so that materials can be reused or recycled. The Local Government Act provides for local governments to regulate construction, alteration, repair and demolition of buildings. However, this strategy option only applies to local governments which provide a building inspection service, which the RDKS currently does not. In 2018 three demolition permits were issued by the District of New Hazelton and four permits by the City of Terrace.

There are different models for encouraging or requiring building deconstruction. In the City of Vancouver for example the diversion requirement for demolition material (either through recycling or reuse) is tied to the age of the property which makes deconstruction a requirement in many cases. Another model, which can be combined with diversion requirements, is to issue a deconstruction permit in advance of issuing a construction permit, allowing time for deconstruction.

Deconstruction can also be supported by making a deconstruction permit significantly less expensive than a demolition permit. However, the overall cost benefit has to outweigh the additional cost associated with deconstruction.

Most deconstruction models focus on diversion, which includes diversion and reuse. A large portion of the material removed isn't suitable for reuse. As PTAC members pointed out on April 16, 2019, building materials may not be suitable for new construction and do often need to be graded (beams etc.) to meet building code. Many older homes in the lower mainland have reusable and sought after building materials but this may not be the case in the RDKS region.

There are currently limited options in the RDKS for reuse and recycling of renovation, construction and demolition materials. Reuse of building and deconstruction materials could be encouraged through reuse stores and share sheds. The market for building materials would have to be assessed. Based on feedback from the public and the PTAC there is more likely to be a market for building material reuse in the Hazelton area than the Terrace area. The model for reuse of building materials, reuse stores or share shed and the level of RDKS involvement would have to be assessed as discussed in Strategy 7 above.

Contractors may be less likely to reuse building materials than the handy homeowner. Considering the few demolition permits issued in the RDKS in 2018, the benefit and resulting diversion of deconstruction should be assessed. This can either be done through some basic desktop calculations or through a more comprehensive deconstruction pilot.

Possible options to incorporate in the SWMP include:

- 9A. Facilitate reuse through deconstruction by promoting markets for reusable building materials.
- 9B. Encourage local reuse of demolition materials by updating the Construction Site Waste Management information brochure.
- 9C. Assess the feasibility of having member municipalities require building deconstruction through a cost benefit analysis and support implementation if deemed feasible.

The opportunity for diversion through recycling of building materials is also addressed in the recycling memo being developed by Morrison Hershfield in the spring of 2020. This includes opportunities for more segregated streams and markets as well as potential mechanisms to encourage or enforce segregation of certain materials such as clean wood and asphalt shingles.

SYSTEM EFFECIENCY

If any of the explored programs are supported it will be important to incorporate mechanisms for system efficiency at an early stage. This would include but not limited to defining roles and responsibilities, standards of service and developing an operating plan. It would also be important to assess risks associated with the program and a based on that assessment develop a mitigation strategy and actions plan.

IMPACTS OF POTENTIAL REDUCE AND REUSE STRATEGIES

Table 1 provides an overview of the anticipated financial impacts if the strategies are implemented in the region. The table is followed by Table 2 which shows which stakeholder groups are affected by the strategies outlined in this memo.

Table 1. Anticipated financial impact related to the identified reductions and reuse strategies.

#	Strategy	Operational costs	Capital Costs	Comments
1	Lobby for reduction of single-use items and packaging	Low	Low	
2	Support member municipalities with implementation of bylaw(s) to eliminate the distribution of single-use items	Low	Low	
3	Encourage voluntary reduction of single-use items by businesses	Low-Medium	Low	Depending on the involvement of the public, this strategy may require significant RDKS attention and resource allocation.
4	Adopt a preferential purchasing policy for green procurement that supports reduce, reuse and the use of recycled content	Low	Low	
5	Promote waste reduction ideas through targeted campaigns	Low	Low	
6	Support reuse through share sheds and reuse stores	Low-Medium	Low-High	Cost depends on the desired involvement from the RDKS.
7	Support reuse and/or repair events	Low	Low	Low capital cost as permanent location is required. Promotion of temporary events require limited resources and operating cost.
8	Develop a contractor's guide to reduction, reuse and recycling	Low	Low	Development and maintenance of the guide is low cost. However, consideration should be taken to the cost associated with the reduce, reuse and recycling options promoted in the guide.
9	Reuse of construction and demolition materials through deconstruction	Low-High	Low-High	The cost depends in the desired involvement from the RDKS. Supported infrastructure for management of the reusable material and processing options for the recyclable portion would be required should, for example, an enforcement be selected.

Table 2. Organizations and categories of individuals impacted by the identified reduction and reuse strategies.

#	Strategy	RDKS	Member municipalities	Residents	Waste haulers and recycling facilities	Industrial, commercial & constitutional sector	Non-profit organizations	Comments
1	Lobby for reduction of single-use items and packaging							The majority of stakeholder groups are affected if the Province regulates single-use items.
2	Support member municipalities with implementation of bylaw(s) to eliminate the distribution of single-use items							
3	Encourage voluntary reduction of single-use items by businesses							
4	Adopt a preferential purchasing policy for green procurement that supports reduce, reuse and the use of recycled content							All contractors are potentially impacted.
5	Promote waste reduction ideas through targeted campaigns							
6	Support reuse through share sheds and reuse stores							Stakeholder involvement depend on owner operator model chosen.
7	Support reuse and/or repair events							Stakeholder involvement depend on the level of RDKS involvement.
8	Develop a contractor's guide to reduction, reuse and recycling							
9	Reuse of construction and demolition materials through deconstruction							Stakeholder involvement depend on the level of RDKS involvement.