



*Solid Waste Management Plan*

**DRAFT Technical Memo 2:**

# **REDUCTION AND REUSE OPTIONS**

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## Contents

1. Scope and Context .....	2
2. Problem Formulation.....	3
2.1. RDKS Role .....	3
2.2. Information Gaps .....	3
3. Stakeholders.....	4
4. Reduction Options .....	4
4.1. Lobby for Reduced Packaging .....	4
4.2. Adopt and Promote a “Greening Government” Strategy.....	4
4.3. Low Waste Holiday Campaign .....	5
4.4. Textile Waste Reduction Campaign .....	5
4.5. Zero Waste Party Supplies .....	5
5. Reuse Options .....	5
5.1. Support Re-Use Store(s).....	6
5.2. Support Reuse and/or Repair Events.....	7
5.3. Develop a Contractor’s Guide to Reduction, Reuse and Recycling .....	7
6. References .....	8

## REVISION TRACKING

Revision	Date	Revision by	Purpose	Changes made
Rev. 0	April 5, 2019	Authored by S. Wilmot and J. Coosemans; Reviewed by R. Tooms, M. Daly and N. Veikle	Initial authoring of document	
Rev. 1	To be completed following PTAC meeting on April 16, 2019	N. Veikle	Integrate feedback from PTAC prior to presenting to RDKS Board	

The Regional District of Kitimat-Stikine (RDKS) is developing a new Solid Waste Management Plan (SWMP; the Plan) to provide direction for how to reduce, reuse, recycle and dispose of our waste for the next decade. The SWMP will be developed in consultation with stakeholders; a Public and Technical Advisory Committee (PTAC) will advise the Regional District Board on the development of plan targets and strategies. The primary focus of the SWMP will be to improve the operational efficiency of existing programs, services and facilities. Multiple topics have been identified for discussion and development of management strategies within the Plan. Each topic requires scope and context, problem formulation, and identification and preliminary evaluation of options. This information will be presented to the PTAC to confirm initial content is sufficient to engage stakeholders. Stakeholder engagement will provide an opportunity for additional topics and options to be identified and evaluated. Feedback from stakeholders and PTAC will help the technical team prioritize topics and identify preferred option(s).

This technical memo presents information about options to reduce and reuse waste in the RDKS. Some of the topics and options include:

- Reduce
  - Lobby the province to amend regulations (i.e., the Recycling Regulation) to require manufactures to reduce the quantity of packaging used for their products;
  - Adopt and promote a “Greening Government” strategy;
  - Campaign to promote gifts of experience over material goods; and
  - Campaign to promote reduction of textile waste.
- Reuse
  - Support the establishment of a Re-Use-It store and/or Re-Build-It store by private or non-profit entities;
  - Support private or non-profit organizations in hosting reuse and/or repair café events;
  - Support the establishment of a Zero Waste party supply program; and
  - Develop and distribute a Contractor’s Guide to Reduction, Reuse and Recycling.

## 1. Scope and Context

Reducing waste generation is fundamental to decreasing the environmental, social, and financial impacts of waste. Waste reduction efforts will become more important as population, and subsequently, overall volumes of waste increase.

Waste reduction is economical compared to the cost of recycling, composting, and disposal. A study commissioned by the BC Ministry of Environment in 2012 estimated the cost of waste management borne by local governments would increase from \$377 million in 2010 to \$450 million in 2025, if waste generation did not decrease (Hood, 2013). In the RDKS, the cost per tonne to recycle and compost is higher than the cost of landfilling. This makes waste reduction, as opposed to recycling and composting, a favourable part of a financially sustainable long-term waste management strategy.

Reducing the production of waste requires changes in both industrial and personal practices. At the regional district level, the focus is on promoting, supporting, and enabling options that reduce the amount of waste local businesses and individuals generate.

Reusing materials that have inherent value and that are no longer needed by the current owner is another important part of reducing the quantity of materials entering the waste stream. Reusing materials, either for their original use or by repurposing, decreases reliance on raw materials and energy needed compared to both recycling and disposal.

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.

## 2. Problem Formulation

### 2.1. RDKS Role

Waste reduction and reuse can impact the amount of waste entering the municipal waste stream. Even with progress towards a circular economy, recycling, composting and residuals management are still necessary. Current RDKS operations focus on establishing and improving recycling, composting and disposal facilities. The RDKS allocates some resources to reduction and reuse efforts, primarily towards education and awareness. However, the RDKS anticipates that other stakeholders may lead the implementation of reuse initiatives, particularly in scenarios where profit may be generated.

The RDKS will provide support for private sector, non-profit organizations and municipalities that wish to provide waste reduction and reuse programming through education and outreach to citizens. The RDKS may also facilitate by creating an environment that enables external stakeholders to operate successfully. This may include passing bylaws or disposal bans to incentivize waste reduction and reuse, setting up a scenarios that provides stability at no net cost to the Regional District ( similar to the arrangement for commercial cardboard recycling with Do Your Part Recycling), and/or continuing to support organizations by promoting their activities through existing RDKS outreach channels (e.g. farmers' market booth).

### 2.2. Information Gaps

The Regional District Solid Waste team anticipates that the following outstanding information will be required to inform decisions regarding reduction and reuse initiatives:

- a. Identify community groups, municipalities or private sector entities that may be interested in hosting, supporting or involvement in reuse initiatives;
- b. Determine the level of local government (i.e., RDKS or municipal) effort and cost associated with supporting reuse facilities or events hosted by other organizations;
- c. Identify potential local industry support to assist with establishing reuse facilities or events;
- d. Evaluate whether a contractors' guide may be an effective method of education regarding waste reduction and reuse on construction sites.

### 3. Stakeholders

The following organizations and categories of individuals will be impacted by the identified reduction and reuse initiatives:

- RDKS
- Member municipalities
- Residents
- Waste haulers and recycling facilities
- Private or non-profit organizations with an interest in waste reduction and reuse

### 4. Reduction Options

#### 4.1. Lobby for Reduced Packaging

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 should place more emphasis on reducing the amount of waste generated.

Plastics, particularly single use plastics used in packaging, can be harmful to the environment throughout their entire lifecycle, from production to disposal. A 2015 waste composition study in the United States showed that only 9.1 % of the 34.5 million tons of plastic waste generated were recycled; the remainder was landfilled or combusted (US Environmental Protection Agency, 2018). The G7 Ocean Plastics Charter, signed by the leaders of Canada, France, Germany, Italy, the United Kingdom, and the European Union, has committed to "significantly reducing the unnecessary use of single-use plastics" and "using green public procurement to reduce waste" (G7 2018, Charlevoix, 2018). The Canadian Council of Ministers of the Environment released a Strategy on Zero Plastic Waste that identifies ten areas for results, including product design (Canadian Council of Ministers of the Environment, 2018).

The RDKS can support reduction efforts by lobbying the provincial government to require manufactures to rethink the type and quantity of packaging they use for their products. Methods of lobbying for packing reduction may include putting forward resolution(s) to the North Coast Local Government Association (NCLGA) and Union of BC Municipalities (UBCM) for presentation to the provincial government, and discussion with the Product Stewardship Council.

#### 4.2. Adopt and Promote a "Greening Government" Strategy

The Canadian Government has committed to action toward reducing plastics in its operations through the "Greening Government Strategy." Through this strategy, federal government is committed to "divert at least 75% of plastic waste by 2030 from federal operations; eliminate the unnecessary use of single-use plastics in government operations, events and meetings; and when procuring products that contain plastics, promote the procurement of sustainable plastic products and the reduction of associated plastic packaging waste" (Government of Canada, 2019).

The RDKS may also commit to a “Greening Strategy,” similar to federal government operations, and encourage its member municipalities and industries/institutions within the RDKS to adopt similar strategies.



Figure 1. Sample Low Waste Holiday Campaign Collateral from Metro Vancouver

### 4.3. Low Waste Holiday Campaign

Metro Vancouver provides their “[Create Memories, Not Garbage](#)” campaign to other local governments at no cost. The campaign includes low-waste gift ideas, gift wrapping and decorating suggestions, and food waste reduction tips (Metro Vancouver, 2017). Campaign materials include posters, online materials and print ads (see Figure 2 as an example). This campaign could be promoted by the RDKS, by member municipalities, or by non-profit groups.



Figure 2. Metro Vancouver Textile Waste Reduction Collateral

### 4.4. Textile Waste Reduction Campaign

Metro Vancouver recently launched a campaign focused on reducing textile waste. The campaign is hosted on the website “[Clothes Aren’t Garbage](#)” (Metro Vancouver, 2019), and Metro Vancouver has committed to making campaign materials (see Figure 3 for an example) available to other local governments at no cost. The campaign includes materials promoting the reduction, reuse, and repair of items. This campaign could also be promoted within the RDKS, by member municipalities, or by non-profit groups.

### 4.5. Zero Waste Party Supplies

The City of Palo Alto has established a [Zero Waste party supply program](#) that makes available bins and reusable cups, dishware, utensils, and cutlery that residents are able to borrow (City of Palo Alto, 2019). The supplies are distributed through the City’s network of Zero Waste Block Leaders.

## 5. Reuse Options

A recent Solid Waste Survey run by the RDKS received over 800 responses. 48.6% of the 144 respondents in the Hazelton and Highway 37 North Service Area and 663 Terrace Service Area said that they would like to see more reuse opportunities in their communities.

### 5.1. Support Re-Use Store(s)

The RDKS does not intend to establish a Re-use store or Share Shed areas within their solid waste facilities at this time due to increased operational expenses. However, recognizing that almost 50% of citizens wish to see more reuse options in their communities, the RDKS will support and facilitate the private sector or non-profit entities in launching and operating reuse facilities. The following are examples of other local governments that have supported other organizations in successfully operating reuse facilities.

- The Resort Municipality of Whistler provides space to Whistler Community Services Society to operate two non-profit retail stores. The Whistler Re-Use-It Centre accepts and sells household goods such as clothes, footwear, accessories, bedding, kitchenware, DVDs, etc. The Whistler Re-Build-It Centre accepts and sells donations of construction and demolition related discards from contractors, including tools, hardware, windows, doors, rugs, light fixtures, toilets, cabinets, flooring, functioning appliances and some furniture. Whistler Community Services society will also be establishing a tool library soon. Whistler Community Services Society uses revenue from the two centres to operate a food bank, outreach workers, drug and alcohol education program, counselling assistance, community kitchens, and other outreach services. The opening of the Re-Build-It Centre was also made possible by \$50,000 in donations from the private sector (Whistler Community Services Society, 2017).
- The Foothills Salvage & Recycling Society (FSRS) is a not-for-profit society that operates a reuse. The facility is located adjacent to the Foothills regional landfill in Okotoks, Alberta. Donations are received at the facility and range from smaller household items such as clothing, books and kitchenware to furniture, building supplies, outdoor equipment and sporting goods. In 2018 the facility generated \$700,000 of revenue and donated \$180,000 to community organizations. The organization has twelve employees and many volunteers. To manage the flow of materials and prevent excess accumulation, the society has implemented guidelines on how to handle donations that do not sell. For example, after 3 months on display, electronics are recycled by a licensed operator. Stained, unusable clothes and clothing that has been on display for more than 3 months are donated to Diabetes Canada. Waste Management takes cardboard, paper and books that don't sell. The Foothills allows the society to dispose of donations that are not sellable at no cost and receives scrap metal to help offset its costs. At the landfill items that are suitable for salvage are stockpiled in a container at the public disposal area and taken to the salvage centre as needed (Foothills Salvage and Recycling Society, 2013).

The RDKS could support the development of reuse facilities by helping to identify suitable sites, connecting volunteers with potential donors, helping volunteers navigate bylaws and other regulations, and promoting the facilities through its communication channels. The RDKS can also do some preliminary work on investigating potential markets for reused items and create an environment conducive to reusing building supplies by incentivizing or requiring deconstruction (see Technical Memo 6 on the topic of deconstruction for more details).

## 5.2. Support Reuse and/or Repair Events

An alternative to a permanent, physical facility is to host reuse events. There are several different models for events that have been successful elsewhere in British Columbia. Some examples are described below.

- The “Junk in the Trunk” sale in Prince George is held twice per year. It is organized by a local environmental group and sponsored by the Regional District of Fraser-Fort George (RDFFG). People wanting to sell their old goods pay \$10 for a spot to park their car in a designated location and sell goods from the trunk of their car. Vendors set their own prices. Anything not sold may be donated or taken home again. The RDFFG helps to publicize the event. There are minimal costs since there is no construction and no staffing required. The participation fee helps to cover site clean up and moving donated items to thrift stores and/or disposal (Regional District of Fraser-Fort George, 2016).
- At Squamish’s Re-Use It Fair, everything is free. Residents can drop off small appliances in good working order or in need of minor repair, large appliances in good working order, gently used toys, books, clothing, baby supplies, DVD, CDs, furniture, household items, garden tools, and sports equipment in reasonable condition. Leftover goods are recycled or landfilled. In 2013, the fair diverted an estimated 90 tonnes of material (Squamish Climate Action Network, 2019). This event is organized and funded by the Squamish Lillooet Regional District.
- The City of Nanaimo’s annual Reuse Rendezvous allows residents to put reusable goods out on the curb for others to pick up for free on one weekend each spring. Anything that is available to be taken must be labeled with a distinct tag. Tags are provided by the City of Nanaimo. Leftover items must be taken back in by the resident. The cost of this program to the City is limited to promotion and the printing of tags (City of Nanaimo, 2016).
- The Town of Okotoks in southern Alberta hosts quarterly “repair café” events. The repair cafés allow community members to bring broken things from home to be repaired by volunteers, for free. The Okotoks events target small appliances, textiles (housewares and clothing), small pieces of furniture, toys and electronics. Volunteer Fixing Coaches assess each item and fix it if the item is repairable. Visitors may choose to learn to fix this item with the Fixing Coach, or stand by and watch as their item is repaired. Okotoks has established “house rules” that limit the liability of the volunteer fixers and make visitors responsible for taking home items that they bring, whether or not they were repaired (Okotoks, 2019).

These types of events could be hosted in any community within the RDKS. The Regional District could facilitate the organization of these events by assisting in or providing event locations, connecting volunteers with potential donors, helping volunteers navigate bylaws and other regulations, promoting the event on media channels, and providing education and outreach in support of the event.

## 5.3. Develop a Contractor’s Guide to Reduction, Reuse and Recycling

The RDKS has a [brochure](#) that provides information on Construction Site Waste Management (Regional District of Kitimat-Stikine, 2017). 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. The brochure does not address waste reduction and reuse topics. The brochure may be updated to include reduction and reuse. Another brochure could be developed that seeks to educate [customers or project managers involved in construction](#). That



brochure would focus on how customers can follow up with their contractors to make sure waste management best practices are being followed on the job site. Other sources of information include [Construction Canada](#) and a guide developed by the [Columbia Shuswap Regional District](#).

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