



# Governance & Services Committee

**TO:** Governance and Services Committee

**FROM:** David Komaïke  
Director - Engineering Services

**DATE:** April 8, 2021

**SUBJECT:** Solid Waste Management Plan Initiatives (SWMP) Update

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**Purpose:** To provide the Committee with an update on the Solid Waste Management Plan (SWMP) and seek feedback in a workshop environment.

## Executive Summary:

On October 8<sup>th</sup>, 2020 David Lefebvre from Recycle BC made a presentation to the Governance and Services Committee outlining the scope of services they provide, what products they are recycling and to answer any questions the Committee members had. There was good discussion on the need to reduce contamination rates through education and the desire to explore alternate technologies & approaches for our recycling program. Towards the end of deliberations, the Committee passed the following resolution:

*“THAT the presentation by David Lefebvre, Recycle BC, be received for information.*

*AND FURTHER THAT staff schedule a workshop to review the current recycling program and possible alternative recycling options.”*

The purpose of this report and associated workshop is to review the current Solid Waste & Recycling Program by providing an overview of the Solid Waste Management Plan (SWMP) that was given Provincial approval last year, review the timelines associated with the SWMP and to provide an update on what the future holds for recycling plastics, how best to manage glass as well as provide options that would not require a formal amendment to the SWMP.

The Workshop will inform the Committee on the following matters:

- Studies being undertaken in 2021 will result in recommendations for new policy and bylaw regulations being brought forward to the Board;
- The Central Okanagan is “on track” in achieving our 2022 Waste Reduction Target;
- As part of the Solid Waste Management Plan, an “Effectiveness Review” will be conducted in 2024 which will provide an opportunity to petition the Province to make any necessary amendments to the SWMP that the Board deems necessary;
- More than 52% of waste going into the Glenmore Landfill comes from residential and ICI sources. Nearly 50% of that waste is organics. Glass represents ~1% of annual waste;

- The diversion of compostable organics represents the most significant opportunity to reduce material entering the landfill and meet our diversion targets.

Across Canada, we observed other provinces progress towards a “BC-Like” EPR program to support localized recycling efforts following the drastic shifts within global recycling markets. With Single Use Plastics, the Federal government has committed to ban specific items including plastic straws, bags, and stir sticks by the end of 2021.

An internal analysis was completed of alternative curbside collection options for depot only materials. The analysis confirmed the initiatives within the SWMP, and suggests that the pursuit of curbside collection of flexible plastics or glass is not an optimized use of resources. The analysis found that dollar for dollar other initiatives, such as curbside organics, could result in up to 50 times the positive environmental and operational impact. Work is planned for 2021 to further quantify and explore opportunities as outlined within the SWMP.

### **RECOMMENDATION:**

**THAT** the Governance & Services Committee receive for information the Solid Waste Management Plan Initiatives (SWMP) Update report.

Respectfully Submitted:



David Komaike  
Director of Engineering Services

Approved for Committee's Consideration



Brian Reardon, CAO

*Prepared by: Travis Kendel, Manager of Engineering Services*

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### **Implications of Recommendation:**

Strategic Plan:

- The Solid Waste Management Plan (SWMP) contributes directly to reducing our community's environmental footprint.

General:

- It is recommended that the RDCO and member municipalities continue to complete initiatives identified within the SWMP. If new strategies or initiatives outside of the SWMP are desired, the RDCO may undergo a public consultation process and complete a detailed consultation report before submitting a revised SWMP to the Minister for approval.
- Implementation schedules within the SWMP are flexible to allow for changes in priorities and available funding.
- The 2024 effectiveness review may result in recommendations to update initiatives, strategies, or targets.

Organizational:

- The SWMP aligns with existing resources, and does not contemplate significant unforeseen change. Significant events, such as the COVID-19 Pandemic may impact timelines and over the longer term. New initiatives, or fast-tracked timelines may require additional staff or consulting resources to support.

Policy:

- Extended Producer Responsibility (EPR) as a policy tool shifts the responsibility for end-of-life management of products (physically and economically) to the producer and away from municipalities to create an incentive for producers to include environmental considerations in design of products.

Legal/Statutory Authority:

- The *Environmental Management Act* requires that all regional districts prepare and submit a SWMP to the provincial government.
  - The *Environmental Management Act* states that: for the purposes of implementing an approved SWMP, a regional district may make bylaws to manage municipal solid waste or recyclable materials.
  - The RDCO is required to undergo public consultation, and complete a detailed consultation report, before submitting a revised plan to the Minister for approval that includes major changes. Minor changes, such as shifts in priority or implementation schedule are permitted without Minister approval.
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## Background:

### Solid Waste Management Plan - Background and Progress Update

The Solid Waste Management Plan (SWMP) provides 10 years of direction to the RDCO and member municipalities regarding all things Solid Waste, and is a regulated requirement under the British Columbia *Environmental Management Act*. Under the same regulation, the development, amendment, and final contents of the SWMP requires extensive public review and consultation before approval by the Minister. To aid in consultation, the RDCO created the Public Technical Advisory Committee (PTAC), the PTAC included local government and RDCO staff, First Nations, local environmental groups, owners of private waste facilities, commercial waste generators, waste haulers, and facility operators.

The RDCO SWMP, following extensive public feedback and consultation, committed to the following goals, in addition to the guiding principles developed by the Ministry:

- Zero Waste: regard all discards as a resource
- Citizens actively engaged in behaviours that reflect the waste management hierarchy (Three R's)
- Make it easy for residents and businesses to make the right decision

The PTAC considered strategies and initiatives in the context of the goals and guiding principles, resulting in a recommendation to include the 24 strategies that support 28 initiatives to be undertaken over the life of the SWMP. 22 of 28 initiatives have been completed or are currently in progress as of March 2021.

Under the guidance of the SWMP, the RDCO and member Municipalities have successfully reduced annual waste disposal from 681 kg/person (2017) to 636 kg/person (2020). With this progress, and the work planned yet to occur, our community is on track to achieve the 2022 target of 600 kg/person. Single family curbside waste accounts for approximately 204 kg/person, 32% of the total waste disposal per capita in the RDCO. The most significant reduction in waste disposal over the next two years is expected to come from other segments of the waste landscape, such as multifamily, commercial, and construction.

Key initiatives to seize upon opportunities within these areas include the completion of the Multifamily Study best practices and policy recommendations, expanded communication planning and public awareness activities, and an internal Organics gap analysis to review and revise factors within the 2011 Organics Lifecycle Assessment in the context of our current waste environment.

The SWMP is required to be reviewed for effectiveness in 2024, at which time further public consultation and amendments to the plan should be considered.

### **Solid Waste Timeline**

The Waste Reduction office undertakes many operational and maintenance activities to support positive waste reduction behaviours within the RDCO beyond major milestones. These activities include:

- Ongoing Campaigns; including:
  - 'Love Food, Hate Waste'; 'Make Memories, Not Garbage'; and 'Christmas Tree Chipping'.
- Annual Events, including:
  - Trunk Sales; Community Clean Up; Household Hazardous Waste and Bulky Item Collection; Repair Cafes and Compost Sale and Education
- Waste Collection Operations, including:
  - Curbside Collection; Transfer Stations; and Recycling Depots
- Monitoring and Clean-ups, including:
  - Commercial Landfill Monitoring; Contamination Reduction; Curbside Cart Management and Inspections; Illegal Dump Monitoring and Clean Up

Beyond regular activities the Waste Reduction office also undertakes significant projects to support the SWMP and RDCO Strategic Priorities. The journey towards our current waste reduction landscape began in 2000 with the roll-out of the curbside collection program, following shortly afterwards with the 2006 SWMP.

From 2006 through to 2016 the RDCO underwent a flurry of activity guided by the 10-year SWMP, including: the automation of curbside collection, closure of the Westbank landfill, various waste audits, expansion of the curbside recycling program and partnership with Recycle BC. In 2016, the SWMP update process began with extensive public consultation, followed by new contracts with Recycle BC in 2018 and E360s in 2019. In early 2020, the SWMP and its corresponding extensive public engagement was approved by the Minister.

As part of the 2021 Budget, the RDCO Waste Reduction office, in consultation with the Solid Waste Technical Advisory Committee, plans to propose the following initiatives for Board consideration:

- Development of a regional Wildlife resistant cart program;
- Analysis and update of the 2011 Organics Lifecycle assessment;
- Implementation of an Expanded Multifamily Recycling program;
- Transfer Station Service Improvements (Trader's Cove and North Westside Road)

With the SWMP established and approved, the next 10-years of Solid Waste guidance are established. The SWMP includes significant initiatives to be explored and considered before the 2024 effectiveness review, including potential for multifamily recycling programs and curbside organics collection.

Waste Generation within the Central Okanagan appears to be projecting downwards following a spike in 2018. From 2013 through to 2018, the RDCO and member municipalities observed a steady increase in waste generation per capita as a result of significant increase in construction waste. Summarized below is the last 8 years of waste performance, a true indication of just how far we've come in recent history.

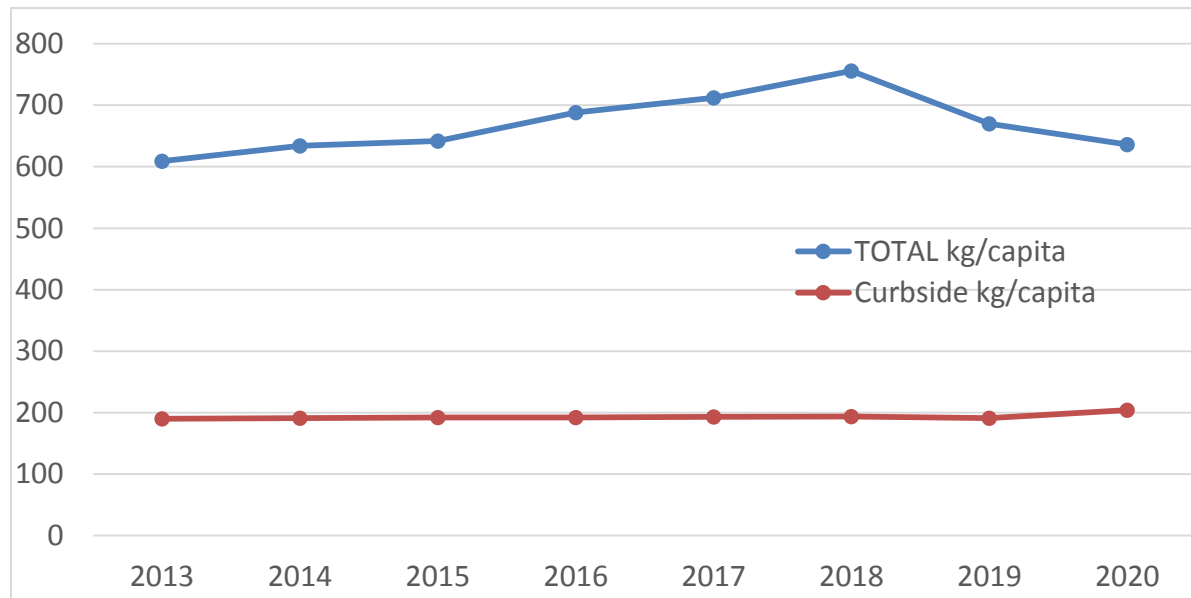


Figure 1 - Waste disposal per capita in the Central Okanagan

### Solid Waste Environmental Analysis and Waste Composition

Within British Columbia, a number of important initiatives and programs are evolving. Single use plastics continue towards an inevitable ban, along with concerted efforts to reduce the overall use of plastic in packaging. Organic diversion continues to be a significant portion of the Province's CleanBC program, with regular annual grants provided to support the construction and expansion of community organics recovery infrastructure.

In other communities Recycle BC has working to expand the number of items accepted curbside through their curbside collection service. Nearby we've observed this with the introduction of curbside glass collection within the North Okanagan Regional District. The RDCO and its member municipalities have a different relationship with Recycle BC, where through partnership we collect curbside materials on their behalf, receive direct compensation, and allocate that funding to pay for the curbside service and educational programs. The RDCO and member municipalities contract with Recycle BC is up for renewal at the end of 2023, by which time the SWTAC will provide a recommendation for consideration to regional Councils and the RDCO Board regarding our collective ongoing relationship with Recycle BC.

Other communities outside the RDCO are also updating their SWMP, with the CRD considering a draft SWMP in November 2020. Their new SWMP reads very similar to the RDCO SWMP, with emphasis on commercial and multifamily diversion, support of EPR programs, and increasing organics diversion.

Outside the borders of our Province, significant change is occurring. Last year, Ontario continued its shift within the provincial recycling program to match the EPR program already existing in BC. New Brunswick also followed suite, announcing that printed paper and packaging would be covered under EPR legislation within the province. Alberta was the latest to jump on the bandwagon, announcing that it plans to advance EPR consultation in early 2021.

BC currently has a 100% industry funded system, with Saskatchewan and Ontario's existing EPR systems targeting 75% and 100%, respectively. British Columbia's recycling system is nation leading, and the envy of local and provincial governments across the country. The success of the EPR program within BC has enabled above average waste reduction and has advanced the recycling and reuse of materials beyond what was achievable through traditional market driven systems. With the introduction of China's National Sword policy in 2018, recycling systems that relied on shipping undesired recyclables overseas were stopped in their tracks, with many communities entirely dropping recycling efforts in favour of landfill disposal. Communities like Calgary, Alberta, which had previously collected plastic clamshells for recycling at curbside found themselves landfilling 92 semi-trailer loads of the same material when overseas markets disappeared.

Across North America, businesses and governments are embracing a shift towards a circular economy. In a traditional linear economy, resources are extracted, products made, and end-of-life items are disposed of (make, use, dispose). In a circular economy, resources are kept in use as long as possible by maximizing product value while in use, recovering or regenerating product life if possible, and then recycling materials at the end of life.

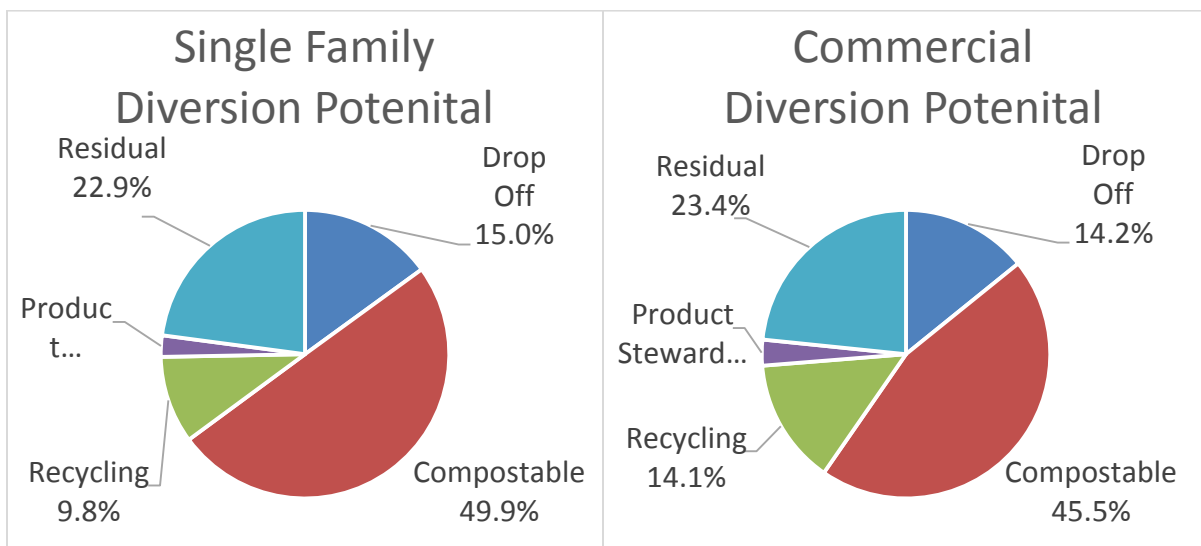
BC is well positioned to embrace a circular economy with its well established EPR program. As provincial capacity to process recyclable materials continues to develop, EPR programs like the one offered curbside through partnership with Recycle BC will begin to include more recoverable materials.



Image: Sustainable Global Resources Ltd. Recycling Council of Ontario

The gradual adoption of a circular economy will naturally lend itself to improved waste reduction, new regulatory controls over product development and disposal, and new responsibilities for local governments when procuring products.

In the RDCO, our waste composition supports the strategies and initiatives approved within the SWMP. As seen in the figure below, there are significant portions of existing regional waste streams that may be divertible in both Single Family and Multifamily segments. The most significant of these is compostable organics.



Compostable organics within the Central Okanagan are part of a complex environment, and more detailed analysis has been included within the proposed 2021 and 2022 Waste Reduction work plans to validate overall feasibility and impacts. Other communities have seen great success with organics collection, such as Capital Regional District (CRD), which observed a 75 kg/person decrease in waste generation following the implementation of organics diversion programs.

Other divertible materials, such as glass (1%) experience significantly diminished returns and are not funded through EPR programs when collected curbside by Municipalities. These other divertibles are not favourable candidates for curbside diversion programs within the current waste reduction environment and are already being responsibly recycled by the majority of consumers.

### **Alternative Recyclable Collection**

On May 9, 2019, the Board directed staff to explore and report to the Board on alternate collection methods for recyclable material which is currently collected through the depot system. Staff reported in September 2020 the outcome of preliminary findings, indicating that no communities in BC have been identified that collect recyclable materials outside of established Extended Producer Responsibility (EPR) programs.

It is recommended that the RDCO and member municipalities remain aligned with the regional SWMP, which advocates for full cost compensation by producers for material recycling. The curbside collection of depot only materials is not aligned with RDCO Strategic Priorities or the SWMP, and does not result in tangible environmental or operational benefits.

For those materials where curbside collection is not recommended, alternative community collection strategies may be viable. Research and analysis is currently underway to explore the inclusion of Encorps 'Express & GO' automated recycling units within underserved areas of the community for beverage container recovery. Initiatives like these represent no-cost recycling options that provide convenient alternatives to residents and visitors.

When the existing Recycle BC contract is up for consideration at the end of 2023, the collection of depot only materials should be considered again in the context of those opportunities. It is not currently recommended to pursue the collection of curbside depot only materials.

### **Emerging Issues and Opportunities**

Recycling contamination continues to be an ongoing concern across British Columbia. Recycle BC maintains a 3% contamination target, which includes items such as garbage, books, textiles, electronics, scrap metal, hazardous waste, and construction debris. Depot only materials included within recycling bins are not calculated as part of the 3% target, however are considered to be incompatible with existing recycling equipment or processes. The RDCO is under contract with Recycle BC to maintain non-acceptable material contamination below 3%.

The Q3 2020 Kelowna Contamination scorecard provides the most representative regional snapshot of contamination performance, and is summarized in the figure below. Kelowna's Q3 2020 not-accepted rate was 8.3%, with an additional 6.1% incompatible materials such as glass, plastic bags, and foam.



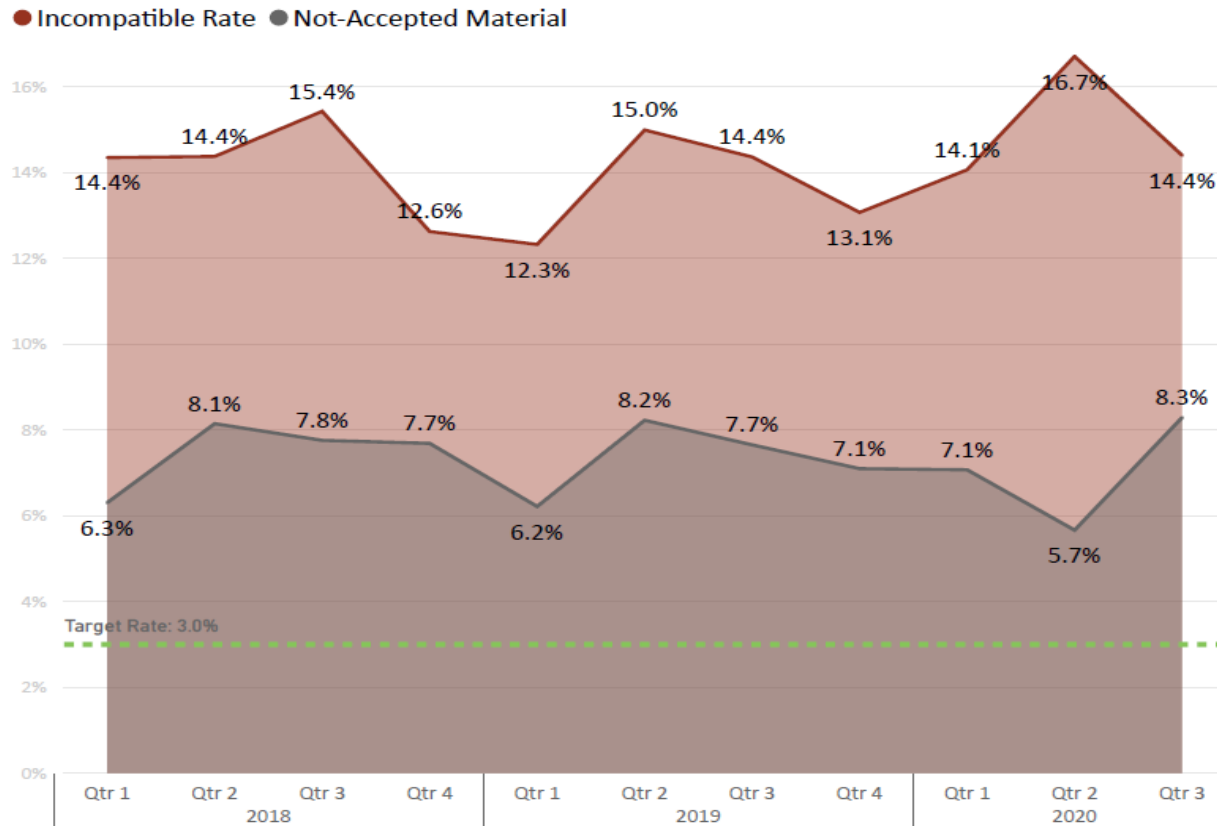


Figure 2 - Q3 Kelowna Recycling Contamination Scorecard

RDCO Waste Reduction is expanding communication planning in 2021 to better analyze and address consumer behaviours that result in recycling contamination. Shifting away from a universal approach, on a trial basis the RDCO will tailor focused messaging, delivered through audience specific mediums to support behavioural change that supports good recycling practices where change needs to occur. The RDCO intends to expand this method of communication to all aspects of Waste Reduction, should it be successful in contamination reduction.

Many consumers want to do the right thing, and may not have access to the resources, services, or information to do so. Multifamily properties remain a relatively untapped segment, representing the ‘low hanging fruit’ of regional waste reduction opportunities. As part of a 2020/2021 study, preliminary findings recommend that the RDCO consider: Bylaw changes, Educational resources and Policy recommendations. When the Multifamily study is complete, the RDCO will engage municipal members through the Solid Waste Technical Advisory Committee to prepare an update and potential recommendations to the Board for consideration.

Extended Produce Responsibility within BC continues to evolve, with the RDCO and member municipalities submitting a joint comprehensive response to the Provincial EPR Intentions Paper to expand the Recycling Regulations. The SWTAC advised the consideration and support of the following products for EPR: Mattresses, Pressurized tanks, Electric vehicle batteries, and Paper and packaging beyond residential sources.

Waste Reduction staff also participated in engagement with Federal and Provincial counterparts regarding the banning of Single Use Plastics. CleanBC has committed to a staged action plan which includes (in this order) bans on single use plastics, reduced plastic in landfills, expanded container returns, and reduced plastic use overall. The Federal government has taken a more focused and structured stance to plastics, working towards banning single use plastics where: viable alternatives exist; products are often not recycled; and, products are detrimental to the environment.

To this end, the Federal Government has announced the single-use plastic ban will take effect by the end of 2021, and impact all single use plastic grocery bags, straws, stir sticks, six-pack rings, cutlery, and foodware. Specifics regarding enforcement or requirements of local governments have not yet been made public.

### **Financial Considerations:**

- Recyclables within the region are currently managed through Recycle BC programs.
- The Recycle BC EPR program is currently funded by producers of paper and packaging.
- Independent recycling initiatives will not be eligible for producer funding, and will require alternative revenue streams, such as the sale of marketable produces and increased user fees.

### **Organizational Issues:**

- Recycle BC currently collects, sorts, markets, and distributes recyclables on behalf of participating regions. A recycling program operating outside of Recycle BCs programming would require additional positions to undertake the same work.

### **External Implications:**

- Current recyclable management within the RDCO and member municipalities aligns with the Solid Waste Management Plan, which advocates for reasonable service levels for the region from all EPR programs and full cost compensation by producers.
- The Solid Waste Management Plan was created with input from the public, local government, and technical experts.
- Prescriptive public engagement and consultation is required to update the SWMP, the last update took approximately 4 years from start to finish.

### **Alternative Recommendation:**

- None

### ***Considerations not applicable to this report:***

- *Which of the above are not applicable – list here*

### **Attachment(s):**

- SWMP Initiatives Update.pdf
- Glass Recycling Report.pdf
- Organics Composting Report.pdf