



supported the strategies proposed in Zero Waste Victoria and commonly noted considerations related to space requirements, accessibility and equity of services, consistency between jurisdictions and across levels of government, and opportunities to leverage existing leaders in the community.

This report also proposes a short-term action plan informed by Council direction and priorities, current staff resources and stakeholder feedback that includes new regulations banning single-use items and improved diversion of organics, recyclable and reusable materials across the community. The short-term actions address the most significant opportunities for waste reduction using existing municipal tools while also laying the foundation for longer term transformative change.

## **PURPOSE**

The purpose of this report is to provide Council with the zero waste strategy and a proposed short-term action plan for approval.

## **BACKGROUND**

The City of Victoria provides community solid waste management services including residential garbage and kitchen scraps collection, residential yard and garden waste drop-off and seasonal pickup programs, street cleaning, and public realm garbage, organics and recycling collection. The City's waste management role as a service provider is enabled by Provincial legislation and its responsibility to reduce landfill disposal is guided by the Capital Regional District's Solid Waste Management Plan. Over time, the City's solid waste mandate has evolved from a focus on managing the disposal of garbage to avoid litter towards a more sustainable model that incorporates landfill diversion, waste reduction and environmental stewardship.

In 2019, Council identified the development and implementation of a robust zero waste strategy to help support climate leadership and environmental stewardship strategic objectives. The initial development phase of the zero waste strategy was completed in 2019 and included a comprehensive analysis of waste generation across all sectors of the community and a review of best practice municipal zero waste programs. The outcomes of this work helped to reveal several insights for targeted engagement and strategy development:

- Victoria is generating a higher portion of regional waste than was previously understood due mainly to its position as the region's hub for employment, commerce and tourism.
- More policies and programs are needed to focus on waste avoidance, reduction and reuse.
- There is an opportunity to divert significantly more recyclable and organic material from the regional landfill.
- The City possesses a range of policy tools and services that complement the Capital Regional District's strategies to reduce landfill disposal.
- The City has an opportunity to demonstrate leadership through corporate waste management practices and share lessons with stakeholders.

In November 2019, Council directed staff to proceed with the second development phase of the zero waste strategy including engaging with key stakeholders to understand and develop the strategies and actions needed to shift towards zero waste for priority sectors and materials.

This report describes the analysis and stakeholder engagement that led to the development of the proposed waste reduction strategy and implementation plan.

## ISSUES & ANALYSIS

The strategy for waste reduction across all sectors in Victoria – *Zero Waste Victoria* - is presented for Council's approval in Appendix A. The plan was informed by a comprehensive analysis of waste generation across the city, current evidence and scientific assessments of waste-related environmental impacts, municipal zero waste best practices from across the world, market and technology trends, municipal authorities under the *Community Charter* and *Local Government Act*, and direct feedback from a diversity of industry and community stakeholders. Key issues and considerations are presented below.

### Focus Areas

Zero Waste Victoria identifies four categories of materials to focus municipal waste reduction strategies:

1. **Single-Use Items and Packaging:** This area consists of materials and products designed to be disposed after a single use or used to package goods, including cups, containers, checkout bags, paper and plastic packaging. Together these products comprise 17% of the material disposed in the regional landfill. In addition, plastic items and packaging that escape collection and enter the natural environment have been shown to harm animals, ecosystems and biodiversity<sup>1</sup>. Residential packaging recycling rates in British Columbia are amongst some of the highest in the world as a result of robust producer responsibility legislation at the Provincial level, but the recovery rate for plastics is less than 50% and flexible plastics less than 25%<sup>2</sup>. This suggests a need for additional initiatives focused on material avoidance and reusable alternatives. The City introduced the first municipal single-use item regulation in British Columbia with the adoption of its Checkout Bag Regulation Bylaw in January 2018. Additional single-use products that are prolific across Victoria but not currently regulated include cups, containers, straws, utensils and paper napkins.
2. **Built Environment:** Products in this category include materials from construction, renovation and demolition activities such as wood, concrete, metals, drywall and asphalt roofing. These materials are responsible for up to 37%<sup>3</sup> of Victoria's landfilled waste with wood products comprising approximately two-thirds of landfilled material from the built environment. Municipal authority to regulate land use and permit development and construction offers an opportunity for the City of Victoria to make a significant impact in this area. Local economic opportunities are also presented through the salvage and reuse of building materials<sup>4</sup>. Notwithstanding hazardous materials, few requirements have been developed to address the responsible management of construction,

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<sup>1</sup> Science Assessment of Plastic Pollution. Environment and Climate Change Canada and Health Canada. October 2020. Retrieved from: <https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/science-assessment-plastic-pollution.html>

<sup>2</sup> Recycle BC – 2019 Annual Report. Recycle BC, 2019. Retrieved from: <http://recyclebc.ca/wp-content/uploads/2020/06/RecycleBC2019-Final.pdf>

<sup>3</sup> Between 50 – 75% of construction waste is estimated to leave the region and therefore not included in the reporting of material at the Hartland landfill.

<sup>4</sup> The Business Case for Deconstruction: Economic and environmental impacts of a demolition-deconstruction shift in Metro Vancouver. Vancouver Economic Commission. July 2020. Retrieved from: <https://www.vancouvereconomic.com/research/the-business-case-for-deconstruction/>

renovation and demolition waste.

3. **Food and Organics:** Materials in this category include uneaten food, food scraps (e.g. peels, shells and bones) and organic material generated from yard and gardening activities. Organic materials continue to represent the largest share of materials disposed at the Hartland landfill at 27% of all waste. Landfilled organic waste generated in Victoria produces the equivalent of 21,000 tonnes of CO<sub>2</sub> annually, approximately 6% of community greenhouse gas emissions. Together, apartment buildings and commercial properties are responsible for more than 85% of Victoria's landfilled organics. The City of Victoria's residential kitchen scraps collection service successfully diverts more than 2,000 tonnes of organics from the landfill each year. Nonetheless, organic materials still comprise one third of the City-collected residential garbage stream, indicating a need for enhancements and better compliance with the City's waste collection service. Despite the existence and development of regional organics processing infrastructure, significant improvements in the source separation of organics materials across all sectors of the community is required to mitigate community greenhouse gas emission and extend the life of the regional landfill.
4. **Durable Goods:** This category includes consumer products that can be used regularly for long periods of time such as furniture, appliances, electronics and clothing. Durable goods comprise 15% of the material disposed annually at Hartland landfill, half of which are textiles. Higher quality durable goods tend to retain their value and can be sold and reused through second-hand markets. Provincial producer responsibility programs have also enabled robust recycling systems for appliances and electronics. Nonetheless, excessive consumption, cost competition and the resulting degradation in quality of durable goods reflect broader societal trends that compromise initiatives to increase reuse and reduce waste. Although the outcomes may be less tangible than the categories above, the City of Victoria can help to foster the community values and behaviours for a circular economy by supporting sharing initiatives and local repair services. The City also has an opportunity to influence product design through corporate procurement strategies that encourage product durability and refurbishment.

Additional materials not categorized in the focus areas above include disposable diapers, pet waste and cigarette butt litter. Together these wastes comprise less than 7% of all material sent to the landfill but have considerable impacts on community sanitation and cleanliness.

### Approach

Three established frameworks guide Zero Waste Victoria: the circular economy, zero waste and the waste reduction hierarchy.

Zero waste fits under the broader model of a circular economy; a paradigm that contrasts the conventional "linear economy" we currently rely on which extracts resources to create products that are used and then disposed – "take, make, waste" – and aims to build economic, natural and social capital based on three foundational principles:

- Design out waste and pollution.
- Keep products and materials in use.
- Regenerate natural systems.

Cities can incorporate all three principles into their planning and operations to help support the transition to a circular economy. The City of Victoria has already taken meaningful steps towards environmental stewardship through a range of initiatives including sustainable stormwater management and its urban forest master plan and climate leadership plan. However, given the concentration of manufactured products, material and resources that exists in cities, it is the second principle of keeping products and materials in use that presents municipalities with the biggest opportunity to advance the circular economy. Zero waste complements this principle by emphasizing the reduction, reuse and repurposing of products thereby maximizing the value of existing community resources.

Zero Waste Victoria also incorporates the waste reduction hierarchy to prioritize strategies and actions. The hierarchy follows a preferential order of action from reduce, reuse, repair, repurpose, to recycle while avoiding disposal. Zero Waste Victoria acknowledges that recycling alone will not achieve zero waste and therefore establishes a renewed framing of the long established 3R's (reduce, reuse, recycle) into three guiding initiatives that clarify and emphasize the City of Victoria's role and responsibility as follows:

1. **Eliminate the unnecessary:** This initiative includes strategies that address products and materials where the negative impacts to the environment and community outweigh the consumer benefits or where viable sustainable alternatives exist.
2. **Make reuse the norm:** This initiative includes strategies that help to establish reusable products and reuse practices (including repair and refurbishment) as the default option throughout the community.
3. **Recycle the rest:** This initiative includes strategies aimed at improving recycling for products that can no longer be used.

Underpinning each of these guiding initiatives is the recognition that the City of Victoria plays an important role in facilitating the transition to zero waste by leveraging knowledge and partners across the community and demonstrating leading waste reduction practices through its corporate operations.

### Zero Waste Strategies

Zero Waste Victoria proposes 40 strategies to support the transition to zero waste across the community to 2040. The strategies, general implementation timeline and performance indicators are listed in Appendix B. The strategies are intended to be actionable over a 20-year period, guiding Council and staff in the development of new initiatives and continual improvement of existing services and programs.

Broadly, the tools available to the City of Victoria to action the strategies and reduce waste include:

- Municipal solid waste services and operations (e.g. garbage and kitchen scraps collection, public realm waste collection, litter pickup).
- Regulation, restrictions, prohibitions (e.g. material bans, fees, permits).
- Corporate procurement.
- Education and outreach programs.
- Advocacy to other levels of government.

The tools the City uses to implement Zero Waste Victoria will evolve over time as conditions change and as the community approaches waste reduction goals. Where appropriate, actions could reflect

a phased regulatory approach following and supported by market approaches and voluntary measures. In other situations, the regulatory tools will be evaluated based on other considerations, including the viability of sustainable alternatives, community or business readiness, local capacity and understanding, and precedents in other jurisdictions.

### Stakeholder Engagement

Between July and October 2020, staff engaged local and regional stakeholders to review draft strategies and inform and prioritize actions for Zero Waste Victoria. Staff conducted 10 online focus group sessions that included 98 participants representing 57 organizations. Participants included representation from government, businesses, private waste management service providers, mission-based organizations and neighbourhood associations.

Summaries of each of the focus group sessions are provided in Appendix C. Overall, participants supported the strategies proposed in Zero Waste Victoria and the need for the City of Victoria to take action to reduce waste across the community. Common considerations for implementing the strategies were noted as follows:

- The availability of space is an underlying issue that needs to be overcome to improve reuse and recycling activities throughout the community. Space is required to store and sort materials at multifamily and commercial properties, warehouse wholesale and retail salvaged building products and used durable goods, and to locate waste management facilities.
- City solid waste management services ought to be reviewed to consider accessibility, equity and environmental stewardship.
- The City's actions should align with initiatives across levels of government and staff should collaborate with government counterparts.
- The City is well positioned to convene major waste generating institutions across the community and lead collective waste reduction initiatives.
- Clear and consistent education and guidance to support waste reduction initiatives is encouraged.

### Implementation Planning

Zero Waste Victoria contemplates the preparation of detailed action plans every 3 – 5 years. Action plans will enable the City to respond to changing conditions and guide budget and resourcing considerations accordingly.

## **OPTIONS & IMPACTS**

The following is the recommended option for the initial short-term action plan, targets and reporting for Council's consideration.

### Short-Term Action Plan

Actions to implement the strategies in Zero Waste Victoria from 2021 through 2023 are proposed in Appendix D. Actions are categorized in terms of impactful initiatives and informed by Council direction and priorities, current staff capacity and stakeholder feedback. Priority initiatives include:

1. **Single-Use Item Bans:** Council's 2019 – 2022 Strategic Plan identifies the development of regulations to address problematic single-use items. Both the Federal and Provincial governments have recently announced proposals to address plastic pollution and the Province has indicated that it will provide new authority to local

- governments to regulate specific products. This action considers the development of new single-use item bylaw(s) in alignment with other levels of government while incorporating accessibility needs and local issues.
2. **Demolition Material Reuse:** In November 2019, Council directed staff to report on policy considerations for sustainable building demolitions. Emerging services and technologies in the region offer potential opportunities for the City to phase in regulatory requirements to accelerate initiatives to reduce and salvage building demolition waste. A forthcoming report with options will be presented in early 2021 for Council's consideration.
  3. **Multifamily and Commercial Source Separation:** Multifamily and commercial properties are served by private haulers providing a range of service levels/standards. The Capital Regional District's (CRD) draft Solid Waste Management Plan proposes the increase of residential and commercial diversion through source separation requirements as a medium-term (5 years) implementation goal. Stakeholder engagement also highlighted the desire for consistent standards for private organics, recycling and waste collection. This action considers development of source separation requirements in alignment with the CRD Solid Waste Management Plan.
  4. **Enhancement of City Services:** In November 2019, Council directed staff to develop a plan to enhance the City's residential collection program and improve diversion of materials in the public realm. New public realm Zero Waste Stations were designed, fabricated and installed in 2020 and expansion is proposed in future years. Planning for residential waste collection began in 2020 and enhancements will be proposed for Council's consideration as opportunities arise; notably, operational efficiencies, equipment replacement, new technology or major grants.
  5. **Education and Outreach:** Initiatives are proposed to build broad understanding of Zero Waste Victoria and to improve awareness of local and regional services and resources that support reduction, reuse and recycling.

### Targets & Reporting

An evaluation of potential waste reduction impacts for each strategy was completed to determine targets for Zero Waste Victoria and to inform key performance indicators (KPIs) for individual strategies. Approximately half of the materials generated in Victoria currently goes to the landfill. Zero Waste Victoria proposes a reduction in this annual landfill disposal of 50% by 2040. This target reflects the opportunity for waste reduction using the current range of tools available to the City of Victoria. Further reductions are possible through supportive actions at higher levels of government and industry-led initiatives.

Focus area KPIs are included in Appendix B. These KPIs may be adjusted over time and new indicators and interim targets added during implementation of Zero Waste Victoria to ensure the City can capture legislative or market changes that arise.

Reporting on the progress of key initiatives and operational highlights will continue to be included as part of regular corporate accountability reporting. Budget and resource requirements will be incorporated into the financial planning process and informed by the short-term action plan. Detailed analysis of progress and issues will be undertaken as part of the proposed 3 – 5 year implementation planning cycles.

### *Accessibility Impact Statement*

Waste management services and infrastructure have direct accessibility benefits and potential impacts. Accessibility stakeholders and people with lived experiences were engaged as part of the focus group sessions with 2 sessions dedicated to equity, inclusion, and accessibility. Equity and accessibility stakeholders will continue to be engaged in the implementation of the City's waste reduction policies, programs and services.

### *2019 – 2022 Strategic Plan*

The draft Zero Waste Strategy and proposed implementation plan presented for Council's consideration in this report address three actions under the Climate Leadership and Environmental Stewardship Strategic Objective: (#1.) Develop a Zero Waste Strategy, (#11.) Introduce regulations to ban and/or restrict problematic single use items (coffee cups, take out containers, straws, etc.) while taking into consideration accessibility needs, and (#16.) Implement a robust Zero Waste Strategy.

### *Impacts to Financial Plan*

In 2019, Council approved budget for two 2-year term staff positions to support development of the Zero Waste Strategy and in 2020 approved one additional continuous staff position. The proposed implementation plan can be accomplished using the staffing capacity of the solid waste engineering and planning section, noting the expiry of two positions in 2022 requiring term renewal or a change to continuous employment status.

Budget to implement Zero Waste Victoria in 2021 is proposed to be carried forward from Council's 2020 one-time commitment in addition to \$95,000 proposed in the 2021 base capital budget for public realm collection infrastructure. Future operating and capital budget requirements to implement Zero Waste Victoria will be proposed through the financial planning process.

### *Official Community Plan Consistency Statement*

Waste reduction is consistent with Plan Goals related to Infrastructure and Climate Change and Energy in the City of Victoria's Official Community Plan (OCP No. 12-013). Specifically, the OCP states that the City is to "support steps for Victoria to move towards a zero net solid waste community in partnership with the Capital Regional District (CRD) and the private sector" and provides the broad objective that "solid waste [is] managed as [a] closed loop system with optimal levels of recovery and re-use" across different stakeholder groups.

## **CONCLUSIONS**

Staff have completed the second development phase of the City's Zero Waste Strategy (Zero Waste Victoria), which included drafting of strategies, stakeholder engagement and short-term implementation planning. A target of 50% reduction in annual landfill disposal by 2040 was established based on an assessment of the impacts of robust implementation of the strategies proposed in Zero Waste Victoria. A short-term action plan is proposed to guide the City's waste reduction actions from 2021 through 2023 including new regulations banning single-use items and improved diversion of organics and recyclable and reusable materials across the community.

Respectfully submitted,

Rory Tooke  
Manager, Sustainability, Assets &  
Support Services

Philip Bellefontaine  
Director, Engineering & Public Works

**Report accepted and recommended by the City Manager**

**List of Attachments:**

Appendix A: Zero Waste Victoria  
Appendix B: Strategies Reference Table  
Appendix C: Engagement Summary  
Appendix D: Short-Term Action Plan