

**REPORT TO ENVIRONMENTAL SERVICES COMMITTEE  
MEETING OF WEDNESDAY, APRIL 19, 2023**

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**SUBJECT**     **Proposed Hartland Bylaw Amendments – Material Stream Diversion**

**ISSUE SUMMARY**

To seek direction on the implementation of new material stream diversion strategies for Hartland Landfill, in alignment with the Solid Waste Management Plan (SWMP).

**BACKGROUND**

The SWMP, approved by the Capital Regional District (CRD) Board in May 2021, targets an annual disposal rate of 250 kg per capita by 2031, a reduction of more than one-third from current levels. Other goals include extending the landfill to 2100 and beyond, and engaging and informing citizens while ensuring solid waste services are financially sustainable in support of zero waste and a circular economy.

In response to this direction, the CRD has retained a technical advisor and issued a Request for Expressions of Interest (RFEOI) to understand the processing and marketing capacity for a range of divertible materials. The technical advisor reviewed results of the RFEOI, the CRD's 2022 Solid Waste Stream Composition Study and analyzed the CRD's current system compared to available data from neighbouring jurisdictions. Results of this analysis are included as Appendix A. Based on this work, staff recommend a series of policy changes and corresponding bylaw amendments summarized below.

**ALTERNATIVES**

*Alternative 1*

The Environmental Services Committee recommends to the Capital Regional District Board:

1. That the Hartland Landfill Tipping Fee and Regulation Bylaw No. 3881 be amended and come into effect January 1, 2024 to:
  - a) Ban wood waste (clean, treated and salvageable), carpet and underlay and asphalt shingles from Hartland's active face, and classify these materials as mandatory recyclable;
  - b) Modernize the tipping fee schedule to align with the proposed tipping fee schedule (Appendix B), including increasing the general refuse tipping fee to \$150/tonne, and introduce a new 'double charge' category for loads of unsorted renovation and demolition materials that contain mandatory recyclables (including wood waste) to motivate source-separation of these materials;
  - c) Introduce hauler incentive rates to promote multi-stream collection, incent voluntary self-reported waste collection data sharing, and minimize the financial impact of increases to the general refuse tipping fees;

2. That the Ticket Information Authorization Bylaw No. 1857 be amended and come into effect January 1, 2024 to:
  - a) increase fine rates for various offences;
  - b) introduce a graduated ticket structure with higher fines for more egregious infractions and/or repeated infractions from a designated source or waste hauler;
  - c) allow for denial of service for chronic repeat offenders;
3. That service levels be adjusted to enhance enforcement capacity resources to implement the new waste diversion policies, to be reflected in the 2024 preliminary budget; and
4. That staff return with the amended bylaws for Board approval in the fall.

#### *Alternative 2*

The Environmental Services Committee recommends to the Capital Regional District Board: That staff bring back alternative policy based on committee direction.

### **IMPLICATIONS**

#### *Environmental & Climate Implications*

Implementation of the proposed recommendations has the potential to divert up to 40,500 tonnes of waste per year from Hartland's active face (equivalent to 22% of all waste received at Hartland in 2022), complementing other current and future CRD waste reduction and diversion programs and initiatives, in support of meeting the 2031 waste disposal target of 250 kg per capita. Solid waste contributed approximately 3.7% of the CRD's greenhouse gas emissions (2020 CRD Community Greenhouse Gas Emissions Inventory Report). Implementing the strategies of the SWMP to reuse, recycle or recover materials will encourage diversion from the landfill, reducing the landfill's contribution to greenhouse gas emissions.

#### *Financial Implications*

The Hartland general refuse tipping fee has remained between \$107 and \$110/tonne since 2011, significantly lower than neighbouring jurisdictions (Cowichan Valley Regional District - \$192/tonne; Comox Valley Regional District - \$145/tonne; and Regional District of Nanaimo - \$145/tonne, as of April 2023).

Under the policy framework recommended by the CRD's technical advisor (Appendix A), the Hartland tipping fee schedule would be modernized to promote diversion of material from the landfill, and provide better alignment with neighbouring jurisdictions and market conditions. The full proposed tipping fee schedule is included as Appendix B. Key changes recommended by staff are summarized below.

Rate Category	Current Rate (per tonne)	Proposed Rate (per tonne)	Description
General Refuse	\$110	\$150	General refuse rate is increased to align with neighbouring jurisdictions, and fund increased processing costs for mandatory recyclable materials.

<b>Rate Category</b>	<b>Current Rate (per tonne)</b>	<b>Proposed Rate (per tonne)</b>	<b>Description</b>
2024* General Refuse Hauler Incentive Rate	N/A	\$125	Private and municipal haulers are eligible for a reduced rate if they have programs in place to ensure that organics and recyclable materials aren't going into the general refuse stream and voluntarily self-report waste collection data. This time-limited rate will minimize the financial impact of the general refuse rate increase.
2025* General Refuse Hauler Incentive Rate	N/A	\$135	Private and municipal haulers are eligible for a reduced incentive rate if they have programs in place to ensure that organics and recyclable materials aren't going into the general refuse stream and voluntarily self-report waste collection data. This time-limited rate will minimize the financial impact of the general refuse rate increase.
Mandatory Recyclables: treated wood, asphalt shingles, carpet and underlay	N/A	\$110	These materials are currently accepted as general refuse at \$110/tonne. Under the proposed fee structure, source-separated mandatory recyclable materials will be accepted at \$110/tonne to incent source separation of these materials. When these materials arrive at Hartland under the mandatory recyclable category, they will be reused, recycled or recovered through contracts with the private sector.
Mandatory Recyclables: clean wood	N/A	\$80	These materials are currently accepted as general refuse at \$110/tonne. They include wood products that are untreated, unstained and unpainted, such as dimensional lumber, pallets, crating, wood fencing, wood shingles and wooden doors
Mandatory Recyclables: salvageable wood	N/A	\$0	Salvageable wood will be processed off-site for reuse and accepted at the Hartland depot free of charge.
Clean Renovation and Demolition Waste	\$110	\$150	Renovation and demolition material is currently accepted at the general refuse rate of \$110. Clean renovation and demolition, that does not include mandatory recyclable materials, will be accepted at the new general refuse rate of \$150/tonne.
Unsorted Renovation and Demolition Waste (double charge)	\$110	\$300	Renovation and demolition material that includes mandatory recyclable materials (wood, asphalt shingles and carpet and backing) will be subject to a 'double charge' rate of \$300/tonne. The rate will help offset the increased processing costs for mandatory recyclable materials and incent source separation of these materials in support of the Solid Waste Management Plan targets.

\* Incentive rates beyond 2025 will be evaluated by the CRD Board and may be extended.

Potential financial impacts are challenging to predict prior to observing actual market response based on the new tipping fee schedule and will ultimately depend on the volume of waste received at Hartland. CRD staff have analyzed the potential financial impact of the proposed Hartland tipping fee schedule under a range of scenarios and in all cases the proposed fee schedule sufficiently addresses risk to quantity and total revenue while still ensuring the landfill remains financially viable.

Staff recommend monitoring the effect of policies on solid waste tonnage and revenue over time and returning to the committee on a quarterly basis for information and/or any recommended policy modifications, as needed, to align with the market conditions and ensure financial sustainability of the solid waste system. If the policies do not achieve the desired diversion, or if waste appears to be migrating out of the region, staff will return to the committee for consideration of flow control policies.

### *Service Delivery Implications*

Appendix A also evaluates Ticket Information Authorization Bylaw No. 1857. Based on this analysis, staff recommend revisions to Schedule 19 of the bylaw. Proposed amendments for additional enforcement measures include:

- increased fine rates from \$50-\$200 to \$100-\$500 for various offences
- a graduated ticket structure with higher fines for more egregious infractions and/or repeated infractions from a designated source or waste hauler
- denial of service for chronic repeat offenders

Implementation of the new policies may require improvements and updates to scale house data collection and equipment, and additional staff will be required to support site operations and bylaw enforcement. Depending on how traffic flow at the site is modified to accommodate drop off of mandatory recyclables, residential quantities of all materials in this classification may need to be accepted at a flat rate, or no charge, at the Hartland depot. If the proposed policies are approved by the Board, the additional resource requirements will be identified through the 2024 budget process, and funded through tipping fee revenues. Staff will also issue a Request for Proposals for the processing of newly-banned materials.

As a consequence of the increased tipping fees for general refuse and mixed material streams, and fines for non-compliance under certain volume scenarios, additional revenue may be generated with the potential to support new and enhanced waste diversion and reduction programs, infrastructure and initiatives that align with the SWMP. These could include investments into recycling depots and infrastructure, enhancements to the rethink waste grant program, and support for increasing diversion from the industrial, commercial and institutional sector. Staff will monitor the effect of policies, and if additional revenues are generated, will recommend programming aligned with the SWMP in future budget years.

Results of the 2022 Solid Waste Stream Composition Study indicate that organic waste makes up the second-largest category of waste being received at Hartland Landfill (16.7%), second only to wood and wood products (18.9%). Addressing organic waste will be critical to meeting the SWMP target. While this report indirectly addresses organic waste through the proposed hauler incentives for multi-stream collection and enhanced enforcement capabilities, it does not directly address organic waste. Staff will return to committee in the future with proposed policies to address organic waste, in line with the SWMP.

In July 2022, the Board endorsed an increase to the tipping fee for international high-risk cruise ship waste to \$500 per tonne, effective January 1, 2024. The fee increase for high-risk waste may incentivize the cruise ship industry to find alternative disposal methods, as well as enhance recycling and waste diversion efforts.

### *Social Implications*

The CRD's technical advisor has indicated that modernization of Hartland's tipping fee schedule is necessary to incent diversion to achieve the targets within the SWMP and to fund the increased costs associated with processing source-separated mandatory recyclable materials. By bringing the new tipping fee schedule into effect January 1, 2024, Hartland customers will have time to prepare for the changes. A communications plan and education campaign will be initiated to educate Hartland customers of the new tipping fee schedule. As the new rates roll out, customers will first be provided with a warning before being issued a ticket or double charge.

To minimize the short-term impact of rate increases on the public, it is proposed that a hauler incentive reduced rate would be available, at a minimum, for the first two years. This rate would be eligible to private and municipal haulers that have programs in place to require multi-stream collection (e.g., curbside collection of organics and recyclables, in addition to general refuse) and voluntarily self-report waste collection data. The incentive program will be available for waste coming from the single-family, multi-family and industrial, commercial and industrial sectors, and will be designed to allow customers to obtain multi-stream collection from more than one hauler, and to recognize backyard composting as a form of multi-stream collection.

### **CONCLUSION**

Capital Regional District staff are working to advance the goals and strategies of the Solid Waste Management Plan. Working with a technical advisor, staff have identified a series of proposed policy changes and corresponding bylaw amendments to incent diversion of materials from Hartland Landfill that could be otherwise recycled, reused or recovered. Recommended changes include modernizing the Hartland tipping fee schedule, classifying wood waste, carpet and asphalt shingles as mandatory recyclable materials and enhancing bylaw enforcement capacity and capability. If directed, staff will amend the Hartland Landfill Tipping Fee and Regulation Bylaw No. 3881. The policy changes are expected to divert up to 40,500 tonnes of waste per year from Hartland's active face.

### **RECOMMENDATION**

The Environmental Services Committee recommends to the Capital Regional District Board:

1. That the Hartland Landfill Tipping Fee and Regulation Bylaw No. 3881 be amended and come into effect January 1, 2024 to:
  - a) Ban wood waste (clean, treated and salvageable), carpet and underlay and asphalt shingles from Hartland's active face, and classify these materials as mandatory recyclable;
  - b) Modernize the tipping fee schedule to align with the proposed tipping fee schedule (Appendix B), including increasing the general refuse tipping fee to \$150/tonne, and introduce a new 'double charge' category for loads of unsorted renovation and demolition materials that contain mandatory recyclables (including wood waste) to motivate source-separation of these materials;
  - c) Introduce hauler incentive rates to promote multi-stream collection, incent voluntary self-reported waste collection data sharing, and minimize the financial impact of increases to the general refuse tipping fees;

2. That the Ticket Information Authorization Bylaw No. 1857 be amended and come into effect January 1, 2024 to:
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  - c) allow for denial of service for chronic repeat offenders;
3. That service levels be adjusted to enhance enforcement capacity resources to implement the new waste diversion policies, to be reflected in the 2024 preliminary budget; and
4. That staff return with the amended bylaws for Board approval in the fall.

Submitted by:	Russ Smith, Senior Manager, Environmental Resource Management
Concurrence:	Larisa Hutcheson, P. Eng., General Manager, Parks & Environmental Services
Concurrence:	Ted Robbins, B. Sc., C. Tech., Chief Administrative Officer

## **ATTACHMENTS**

Appendix A: Waste Diversion Framework Memo – GHD (April 4, 2023)  
Appendix B: Proposed Hartland Landfill Tipping Fee Schedule

# Technical Memorandum

April 4, 2023

<b>To</b>	Liz Ferris	<b>Contact No.</b>	
<b>Copy to</b>	Deacon Liddy	<b>Email</b>	
<b>From</b>	Riley Kieser, Laura Hnatiuk/ra/1	<b>Project No.</b>	12590255
<b>Project Name</b>	Technical Advisor - Biosolids Beneficial Use and Resource Recovery Strategies		
<b>Subject</b>	CRD Framework Memo		

## 1. Introduction

The Capital Regional District (CRD) has requested a framework proposing an approach to waste management that is aligned with the waste reduction hierarchy, modernized with current market conditions and supported by best practices throughout BC and neighbouring jurisdictions. This approach will support increasing processing costs, preserve landfill airspace, and support the CRD's Solid Waste Management Plan (SWMP) commitment to increasing waste reduction and diversion.

The framework includes recommended amendments to the Hartland Tipping Fee and Regulation Bylaw No. 3881 (Bylaw) that will promote waste reduction and diversion. Recommendations include updates to the current tipping fee schedule, increased enforcement capacity, and a series of waste reduction and diversion initiatives and policies. The framework outlines the associated high level financial and operational implications as well as next steps for the CRD and the Hartland Landfill (Landfill) should the proposed approach be taken.

## 2. Background

The SWMP, approved by the CRD Board in May 2021, targets an annual disposal rate of 250 kg per capita by 2031. Other goals include extending the Landfill past the year 2100 while ensuring solid waste services are financially sustainable. In 2022, the Landfill accepted approximately 180,000 tonnes of solid waste for disposal and diverted over 16,640 tonnes of materials at the Hartland Public Drop-off Depot. The 2022 disposal rate was 409 kg per capita.

The SWMP enables the CRD to take action in several interconnected areas to increase diversion of materials from the landfill in support of waste reduction targets. On this basis, staff propose implementing a suite of policies designed to divert material from the mixed general refuse (garbage) stream at the Landfill and recycle, repurpose or recover these materials for beneficial use, supporting a circular economy.

An updated Bylaw that encourages increased waste reduction and diversion aligns with the goals and objectives set forth in the 2021 CRD SWMP. The Bylaw was last amended in 2016 to address out-of-region asbestos and kitchen scraps, and tipping fees to garbage has not been updated since 2015. The Bylaw requires updates to promote the source separation of materials, bans, and tipping fee structures that align with current market conditions and best practices throughout BC, as demonstrated by neighbouring jurisdictions.

This Technical Memorandum is provided as an interim output under our agreement with Capital Regional District. It is provided to foster discussion in relation to technical matters associated with the project and should not be relied upon in any way.

The proposed approach within this framework includes amendments to the current Bylaw, tipping fee schedule and implementation of additional service delivery programs. The framework provides an overview of the impacts should this approach not be taken (status quo), which focuses on maintaining financial sustainability of the CRD's waste management infrastructure by updating the tipping fee schedule to align with rising inflation only.

### 3. Current System

The CRD currently accepts general refuse, including renovation and demolition (R&D) materials, for landfill disposal at \$110, a rate that has not been increased since 2015 (Bylaw 3917). The CRD's landfill disposal rates for garbage and R&D materials are currently the lowest on Vancouver Island. Neighbouring jurisdictions of Cowichan Valley Regional District (CVRD) and Comox Valley Regional District (Comox) have updated their tipping fees as of January 1, 2023, and charge \$192 per tonne and \$145 per tonne for general refuse respectively. The Regional District of Nanaimo (RDN) currently charges \$140 per tonne with rates increasing to \$145 in April 2023. See Table 2 for jurisdictional benchmarking. The CRD has landfill bans in place for some materials but can expand these categories and update tipping fee structures to incentivize source separation and increase diversion.

Figure 1 below shows the CRD's general refuse tipping fee for the past 20-years compared to available historic data for CVRD, Comox, and RDN. Table 1 shows that the CRD consistently increased their fee from 2004 to 2011, and there have been no changes since 2015. Comox and the CVRD have increased their garbage tipping fee on a consistent basis dating back to 2013 and 2019 respectively, as demonstrated below.

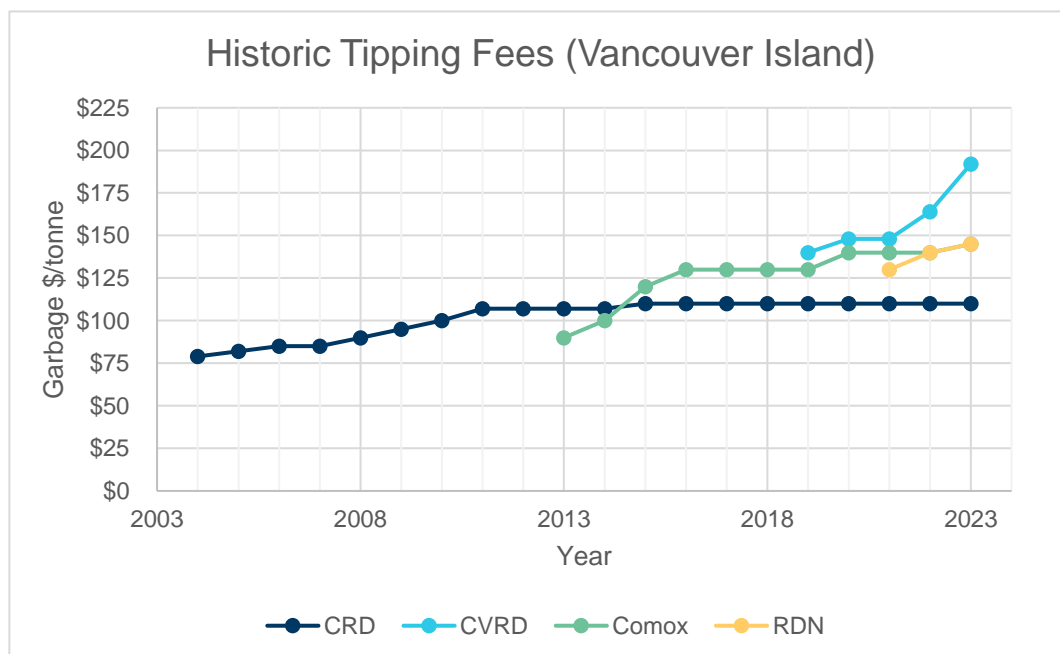


Figure 1 General Refuse Tipping Fee Increases on Vancouver Island

Table 1 CRD General Refuse Tipping Fee History

Year	2004	2005	2006-2007	2008	2009	2010	2011-2014	2015-2023
General Refuse Tipping Fee Rate	\$79	\$82	\$85	\$90	\$95	\$100	\$107	\$110

The combination of low landfill tipping fees along with the absence of incentives for source separation of materials promotes landfill disposal as a convenient and affordable option, which includes a variety of materials that are suitable for reuse, recycling and recovery options.

The CRD Board acknowledges the potential for increased waste reduction and diversion as they endorsed the CRD report titled *Meeting the Solid Waste Management Plan Targets through Material Stream Diversion*. CRD staff are actively exploring programs, policies and initiatives to understand the feasibility of implementation, impact on diversion rates, and the associated legislative, operational and financial impacts:

- Since 2021, the CRD has been undertaking a wood waste shredding pilot in which shredded materials are beneficially reused locally as HOG fuel.
- A R&D shredding pilot has been underway since 2022, in effort to reduce bulk and increase landfill airspace. Studies to explore the feasibility to thermally recover this material is currently underway.
- In 2022-2023 the CRD undertook a waste audit and feedstock analysis to understand the types and quantities of divertible materials currently going to landfill.
- The CRD is currently engaging businesses in an RFP process for the beneficial reuse and recovery of various highly divertible materials identified within the feedstock analysis (e.g., R&D materials).
- Exploration of Waste-to-Energy systems for post-recycled Municipal Solid Waste.
- Review and analysis of current tipping fee rates and structure, landfill bans, and jurisdictional benchmarking to identify areas of opportunity for increased waste reduction and diversion.

It is proposed that the CRD align their policies with B.C. best practices and modernize their tipping fee structure to achieve the targets set out in the revised SWMP. By implementing policies to reduce waste and increase diversion, the region's annual disposal rate will continue to lower which in turn extends the lifespan of the Landfill.

### 3.1 Tipping Fee Benchmarking

Tipping fees for general refuse and R&D waste has been evaluated against the CRD's neighbouring jurisdictions of the CVRD, RDN and Comox:

- CVRD charges \$192 per tonne of general refuse and does not accept R&D waste.
- Comox and RDN charge \$145 per tonne of municipal solid waste and \$145 per tonne of R&D waste without recyclable/prohibited materials.
- Comox charges a fee of \$330 per tonne for R&D waste containing recyclables/prohibited materials.
- The RDN applies a 20% surcharge for R&D waste containing recyclables/prohibited materials.

Tipping fees and costs of processing R&D materials from the private sector were evaluated from the Request for Expression of Interest process undertaken by the CRD in 2023. On a per material basis, the costs ranged from:

- Clean and Treated Wood - \$90-\$160 per tonne for processing through waste-to-energy
- Carpet and Underlay - \$90-\$300 per tonne depending on waste-to-energy or recycling
- Asphalt Shingles - \$90-\$300 per tonne for processing through recycling
- Salvaged Wood - \$0 - \$200 per tonne for reclamation/reuse.

GHD has proposed tipping fees in Section 5 that reflect private processing costs but are currently incentivized to increase program participation.

A tipping fee database was compiled to reference tipping fees in other B.C. jurisdictions and is provided in Table 2 below.

**Table 2** *Jurisdictional Tipping Fee Benchmarking*

Municipality	Site Name	Waste Material	Tipping Fee (\$/tonne)	Additional Notes
<b>Vancouver Island</b>				
<b>CRD</b>	Hartland Landfill	Garbage, Renovation & Demolition Waste	\$110	\$254 (bulky waste) Out-of-region waste is prohibited.
<b>RDN</b>	Nanaimo	Garbage, Renovation & Demolition Waste	\$145	Increasing to \$145 on April 1, 2023 from \$140. Out-of-region waste is prohibited.
<b>CVRD</b>	Cowichan Valley Transfer Stations	Garbage	\$192	Increased as of January 1, 2023 from \$164. Out-of-region waste is prohibited, with the exception of manager approval at a tipping fee of \$500/tonne.
<b>Comox Valley Regional District</b>	Comox Strathcona Waste Management Landfills	Garbage, Renovation & Demolition Waste	\$145 (regional) \$290 (out of region)	Increased as of January 1, 2023 from \$140. Out-of-region MSW from regional districts is only accepted upon request from their respective Board, and authorized by the Comox Strathcona Waste Management Board at a rate of \$290/tonne.
<b>Lower Mainland</b>				
<b>City of Vancouver</b>	Vancouver Landfill	Solid Waste, other than municipal garbage	\$113 – 161	Solid waste, other than municipal garbage: \$161 (under 1 tonnes) \$139 (1-8 tonnes) \$113 (8+ tonnes)
		Garbage (municipal)	\$127	Increase as of January 3, 2023.
		Renovation & Demolition Waste	\$150	Does not accept out-of-region waste.
<b>Private</b>	Eco Waste	Renovation & Demolition Waste	\$163	
<b>Metro Vancouver</b>	Metro Vancouver Recycling and Waste Centers	Solid Waste, other than municipal garbage	\$113 – 161	Solid waste, other than municipal garbage: \$161 (under 1 tonnes) \$139 (1-8 tonnes) \$113 (8+ tonnes)
		Garbage (municipal)	\$127	Increase as of January 3, 2023.
		Renovation & Demolition Waste	\$150	Does not accept out-of-region waste.

<b>Okanagan</b>				
<b>City of Kelowna</b>	Glenmore	Garbage, Renovation & Demolition Waste	\$104	No out-of-region restrictions.
<b>RDOS</b>	Campbell Mountain	Garbage  Renovation & Demolition Waste	\$110  \$110 - 700	Renovation & Demolition Waste varies based on mixed load assessment.  Out-of-region materials are charged two times the rate for refuse, or two times the highest rate for any solid waste contained in the load, (whichever is greater) with a \$20 minimum charge.

## 4. Impact on Diversion

The proposed framework focuses on divertible materials currently being sent to the Landfill. These materials are largely found in ICI and R&D bins and the current Bylaw and tipping fee schedule does not incentivize separation but rather mixed disposal. The actions within the proposed framework will complement other current and future CRD waste reduction and diversion programs and initiatives, and in conjunction, supports meeting the 2031 waste disposal target of 250 kg per capita. Should the CRD's disposal per capita goals be achieved, the Landfill can expect to receive approximately 118,000 tonnes of waste per year, down from 180,000 tonnes per year disposed in 2022. This represents a decrease of approximately 62,000 tonnes of waste per year, or 34% from 2022 levels.

Through the actions proposed within this framework, it is expected that banning carpet and underlay, clean wood, treated wood, and asphalt shingles, the CRD has the potential to divert up to 40,500 tonnes of materials per year, approximately 22% of the current mixed waste stream going to Landfill:

- Carpet and underlay – up to 4,000 tonnes
- Clean wood – up to 5,500 tonnes
- Treated wood – up to 22,000 tonnes
- Asphalt shingles – up to 9,000 tonnes

## 5. Modernization of Tipping Fee Schedule

Of the proposed action items and initiatives, the main driver will be amending the Bylaw to include landfill bans and update the tipping fee schedule to promote waste reduction and diversion. Updates to the Bylaw will systematically divert additional materials from Landfill and a revised tipping fee schedule will generate additional revenue from incoming waste, all with considerations to mitigate waste migration out of the region. The CRD should review and implement Bylaw amendments in 2023.

## 5.1 Bylaw Amendments & Tipping Fee Revisions

The first phase in the framework is to amend the Bylaw to include updated material definitions, landfill bans and tipping fee rates to align with 2023 market conditions and other regional districts throughout BC.

Proposed amendments to the Bylaw include:

### Updated tipping fees and definitions for the following waste materials (see Table 4):

- General Refuse
- Clean Renovation and Demolition Waste (not containing mandatory recyclable materials)
- Unsorted Renovation and Demolition Waste (containing mandatory recyclable materials)
- Clean Wood Waste
- Kitchen Scraps
- Salvaged Wood Waste
- Mattresses and Boxsprings

### Updated definitions for the following waste materials (see Table 4):

- Asphalt Roofing Shingles
- Carpet and Underlay
- Treated Wood and Wood Products
- Engineered Wood Products
- Large Rigid Plastics

### Inclusion of the following materials within SCHEDULE F “Mandatory Recyclable Material” category:

- Asphalt Roofing Shingles
- Carpet and Underlay
- Clean Wood
- Treated Wood and Wood Products

The practice of banning the disposal of specific wastes from the Landfill when viable recycling alternatives are in place, has been used by the CRD since 1991, shown in Table 3 below<sup>Error! Bookmark not defined.</sup>. In support of the updated Bylaw and potential Landfill bans, the CRD is undertaking a Request for Proposal process to explore new and expanded material diversion and recovery options available within the region to ensure that banned materials end up in alternative processing streams or end markets. Proposed Bylaw amendments required to enforce the additional measures are included in the bylaw enforcement capacity section.

Table 3 *Materials Banned from Landfill*

Year Banned	1991	1993	1995	1998	2006	2011	2015
Material	Drywall	Cardboard Directories Large appliances Tires	Scrap metal Fill Aggregate Concrete Asphalt Rubble Clean soil	Paper fibres	Yard and garden waste	EPR materials (current and future)	Kitchen scraps

## Hauler Incentive Rates

An incentive rate is proposed for haulers who are undertaking three stream collection, and reporting data to the CRD. It is proposed that the CRD apply a two-year discounted tipping fee rate on general refuse for eligible haulers:

- Year 1: \$25/tonne discount on the \$150 per tonne rate
- Year 2: \$15/tonne discount on the \$150 per tonne rate

These specialized rates will be available to private and municipal haulers within the region who can attest that their collection program requires three stream collection from their customers (e.g. garbage, organics and recycling) and self-report waste collection data requested by the CRD. More information on the hauler incentive programs is provided in Section 6.3.

The key updates to the tipping fee schedule are as follows:

- Increase the General Refuse fee of \$110 per tonne to \$150 per tonne, aligning with neighbouring jurisdictions.
- Introduction of differential tipping fees and surcharges
- Surcharge for loads containing Mandatory Recyclable Materials
- Preferential rates/discounts for sorted materials

Table 4 Proposed Landfill Tipping Fee

Material Categories	Current Waste Type	Proposed Waste Type	Currently Banned Material	Proposed Banned Material	Current Tipping Fee (\$/tonne)	Proposed Tipping Fee (\$/tonne)	Hauler Incentive Rate Year 1 (\$25/tonne discount)	Hauler Incentive Rate Year 2 (\$15/tonne discount)	Considerations
<b>Clean wood:</b> Clean wood includes wood products that are untreated, unstained and unpainted such as pallets, crating, wood fencing, wood shingles, wooden doors, and clean renovation and demolition wood waste	Recyclable	Recyclable	Voluntary Recyclable	Mandatory Recyclable	\$110.00	\$80.00	-	-	As a mandatory recyclable, the incentive of source separation will be higher with the lower tipping fee. Neighbouring municipalities accept clean wood for \$95-100 per tonne.
<b>Treated wood and wood products:</b> Treated wood includes engineered wood products or pressure treated, stained, or painted wood and wooden furniture that may or may not contain nails or other metal fasteners.	Recyclable (under clean wood)	Recyclable	Voluntary Recyclable	Mandatory Recyclable	\$110.00	\$110.00	-	-	Treated wood waste is expected to be a large volume of material and will require a higher tipping fee compared to clean wood waste (difference in processing). CVRD accepts treated wood under pilot at \$192/tonne at Bings Creek Recycling Centre only.
<b>Asphalt roofing shingles:</b> Roofing shingles composed of a felt mat saturated with asphalt, with small rock granules added.	General	Recyclable	No	Mandatory Recyclable	\$110.00	\$110.00	-	-	Currently material would be considered under clean demolition waste. Propose to create separate category for asphalt shingles under mandatory recyclable. CVRD accepts for \$120/tonne and CSWM for \$145/tonne. Cost will need to incentivize separation.
<b>Carpet and underlay:</b> Flooring material made of woven wool or synthetic fibres and foam padding underlayment where tack stripping material has been removed.	General	Recyclable	No	Mandatory Recyclable	\$110.00	\$110.00	-	-	RFEOL identified the opportunity for 50% of this material to be recyclable. Other 50% may be used as WTE. Propose to make specific recyclable carpets mandatory and charge rate of \$110/tonne. Other carpet types would go to WTE (or all could go to WTE).
<b>Salvaged wood:</b> Clean dimensional lumber greater than 4 feet in length. Unpainted.	Recyclable	Recyclable	Voluntary Recyclable	Mandatory Recyclable	\$110.00	\$0.00	-	-	A new category within clean wood, only for larger timbers and lumber. Charge \$10 scale fee at \$0/tonne for drop-off. Contractors may remove from site for a small fee.

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Material Categories	Current Waste Type	Proposed Waste Type	Currently Banned Material	Proposed Banned Material	Current Tipping Fee (\$/tonne)	Proposed Tipping Fee (\$/tonne)	Hauler Incentive Rate Year 1 (\$25/tonne discount)	Hauler Incentive Rate Year 2 (\$15/tonne discount)	Considerations
<b>Clean renovation, and demolition waste (not containing Mandatory Recyclable materials):</b> Material that results from the demolition of all or part of a building that does not contain Surface Coating Waste, Hazardous Waste, Prohibited Waste, Mandatory Recyclable Materials or an Extended Producer Responsibility Product.	General	General	No	No	\$110.00	\$150.00	-	-	The clean renovation and demolition waste that does not include recyclable materials will be charged at the general lower rate to incentivize material separation. CSWM charges \$145 for general refuse and clean R&D waste. CVRD does not accept R&D.
<b>Unsorted renovation, and demolition waste (Containing Mandatory Recyclable materials):</b> Material that results from the demolition/renovation of all or part of a building that contains Hazardous Waste, Prohibited Waste, Mandatory Recyclable Materials or an Extended Producer Responsibility Products.	General	General	No	No	\$110.00	\$300.00	-	-	The unsorted renovation and demolition waste that includes mandatory recyclable materials will be charged at the higher rate to increase material separation. CSWM charges \$330 for R&D waste with recyclable material.
<b>General Refuse</b>	General	General	No	No	\$110.00	\$150.00	\$125.00	\$135.00	The general refuse rate at the CVRD is \$192/tonne and CSWM is \$145. The CRD rate should increase to align with the clean renovation and demolition waste.
<b>Mattresses and Box springs</b>	Recyclable	Recyclable	Yes	Yes	\$110.00	\$20 per unit	-	-	Changing the tip fee to a per unit basis is in line with best practises. The RDN charges \$20/unit, Metro Vancouver charges \$15/unit with a maximum of 4 units. The SCRCD charges \$25/piece and \$30 for wet.

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## **5.2 Mitigation of Waste Migration**

Waste migration may be a potential consequence of the increased tipping fees and additional policies. The CRD must remain competitive with the current market conditions (public and private) to ensure financial viability of operations. As stated above, the CVRD charges \$192 per tonne and Comox and RDN charge \$145 per tonne for municipal solid waste.

The GFL Victoria commercial recycling facility accepts mixed commercial, renovation and demolition (CR&D) materials at a rate of \$292 per tonne, and the CRD proposes rates of \$300 for contaminated CR&D materials.

The CRD estimates the cost of transporting and disposing waste off Vancouver Island is approximately \$190 (i.e. CVRD tipping fees represent full cost recovery of waste export). Landfills within neighboring jurisdictions, such as the RDN and Metro Vancouver, do not accept out-of-region waste, or accept out-of-region materials only with Manager or Board approval at high rates, such as the CVRD and Comox Valley Regional District.

The proposed increased General Refuse tipping fee will remain competitive for the CRD to continue as a cost-effective disposal option for the region. The CRD will monitor the impacts of the new tipping fees after implementation, and should it be required, explore the potential of flow control mechanisms and/or change tipping fees to respond to market conditions.

## **6. Potential Updates to Service Delivery**

As a consequence of increased tipping fees for general refuse and mixed material streams, and fines for non-compliance, additional revenue will be generated with the potential to support new and enhanced waste diversion and reduction programs, infrastructure and initiatives. The following proposed actions will work in conjunction to target various waste streams and sectors. These include enhanced systems and equipment for improved data collection and enforcement, increased access to recycling depots, increased Bylaw enforcement capacity, partnerships with local non-profits to target the commercial sector, and waste hauler incentive programs for multi-stream collection and data reporting.

The potential proposed actions are detailed further in the following sections. The actions proposed below may be implemented in a phased approach over time, and the CRD may elect to proceed with all, or a select number proposed actions.

### **6.1 Improvements to Scale House Data Collection and Equipment**

The CRD will likely require improvements and software updates to their Landfill scale house to ensure data collection is detailed and accurate. It is proposed the existing scale house software be updated to include additional waste material categories such as asphalt roofing shingles, carpet and underlay, etc. and variable rates, such as surcharges applied to contaminated R&D loads containing recyclable materials or discounts for specific waste haulers.

The collection of accurate data will be integral to tracking disposal and diversion metrics for specific waste haulers and the region. This data will enable the CRD to improve their ability to monitor progress against their performance metrics by increasing the quality and quantity of key data. With detailed classification of waste going to landfill, potential patterns for generators or materials might emerge allowing for new diversion opportunities.

It is recommended that scale house staff undergo a training session to understand the newly implemented definitions and the application of variable tipping fees.

Scale house cameras should be installed for staff to confirm incoming loads are consistent with descriptions provided by residents and commercial haulers. Camera screenshots can be attached to scale tickets as a confirmation if surcharges have been applied.

Key next steps to consider in undertaking this initiative include:

- Confirm new categories as per amended Bylaw and develop codes to be tracked
- Update existing software with new categories and codes
- Purchase and install new equipment (e.g., cameras)
- Undergo staff training program, including a guidance document

## 6.2 Zero Waste Coaching for Businesses

Non-profit organizations have great potential to make significant change. Hiring community-based, non-profit, social enterprise organizations is an effective and unique approach to supplement the CRD's resources and capacity and reach a wider and more diverse range of sectors in a meaningful way. Engaging non-profits to support and facilitate waste reduction and diversion within the ICI sector aligns with Action A within the CRD's SWMP Strategy # 9: to Increase Industrial, Commercial and Institutional Diversion, to "allocate resources to increase ICI diversion for example a business waste reduction liaison" Error! Bookmark not defined.

Non-profits have the expertise and the ability to provide targeted services and support in an innovative and creative manner, with the time and capacity to thoroughly engage, consult, and empower the community, and support the ongoing development of new programs and services.

In 2022, the CRD piloted the "Rethink Waste Community Grant Program which provides up to \$50,000 in funding annually, for the development and implementation of community-based projects aligned with the 5R pollution prevention hierarchy<sup>1</sup>. The CRD may be interested in expanding this program to develop a separate stream targeting the ICI sector specifically. Non-profits such as the Synergy Foundation provides waste reduction educational services and support throughout BC, and within the CRD, through their Circular Economy Business Consulting program<sup>2</sup>. The CRD may wish to partner with the Synergy Foundation by providing annual funding to support the expansion of this program to the ICI sector, or in the development of a new program.

Ocean Ambassadors Canada is a non-profit that works with local business communities to launch a variety of single-use plastics reduction initiatives, with the financial support from local municipalities. Their Zero Waste Coaching for Small Businesses program offers free zero waste coaching for small businesses in BC residing within the sponsoring municipality<sup>3</sup>. Representatives from the program will meet with businesses on site to review materials used and operations and provide suggestions to decrease volumes of single-use items, and increase recycling and organics diversion. The program will offer alternative suggestions and solutions to single-use materials, provide educational support for staff and customers, and help solve problems and challenges through research and expert consultation.

Non-profit business liaison services may include the following support to local small businesses on their pathway to zero waste:

- Waste reduction and diversion assessments and recommendations for improvement
- Guidance in reducing waste generation, reuse, recycling and composting
- Waste audits
- Procurement and sourcing
- New revenue from waste
- Staff and customer education and training
- New program and initiative implementation
- Marketing, media and promotional materials, strategies

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<sup>1</sup> Capital Regional District. 2022. Rethink Waste Community Grant. Accessed online from <https://www.crd.bc.ca/service/waste-recycling/reduce-reuse/waste-reduction-grant>

<sup>2</sup> Synergy Foundation. 2022. Our Services. Accessed online from <https://www.synergyfoundation.ca/services>

<sup>3</sup> Ocean Ambassadors Canada. 2022. Zero Waste Coaching for Small Businesses. Accessed online from <https://oceanambassadorscanada.org/zero-waste-programming/>

- Launches and public events
- Ongoing program monitoring and troubleshooting
- Data collection, performance monitoring and reporting
- Program recognition (e.g. decals, logos, etc.)

Financial support for a non-profit business liaison program may be administered on a term basis (e.g., \$1 million per year for a 5-10 year term). Non-profits have the ability to leverage funding to secure commitment for other funding sources, extending their impact even further.

The CRD may wish to expand the Rethink Waste Community Grant to increase annual funds and target the ICI sector, or develop a new CRD ICI zero-waste business coaching program and contract non-profits for program delivery. The CRD also has the opportunity to partner in an existing program, such as the Circular Economy Business Consulting as a funding partner.

Key next steps to consider in undertaking this initiative include:

- Determine approach (i.e. in-house program or enrolling in existing program)
- Develop Terms of Reference
- Market sounding exercise with existing non-profits
- Develop Request For Proposal
- Enter into an agreement

## 6.3 Hauler Incentives

The CRD has an opportunity to provide financial incentives to waste haulers to promote participation in new programs that will assist the CRD in gaining detailed waste generation and disposal location data and information, and increase multi-stream collection region wide. By providing voluntary incentivized programs, the CRD can prepare haulers before long term, mandatory programs are considered.

### 6.3.1 Short-Term Programs

#### Multi-Stream Collection Incentives

Providing financial incentives to haulers through discounted tipping fee rates to promote three-stream collection (organics, recycling and garbage) to their residential and commercial customers is motivation to increase multi-stream collection region wide, filling in gaps where organics may not currently be collected. The CRD proposes to provide incentives in the form of a two-year tipping fee reduction (\$25/tonne in year one and \$15/tonne in year two), to haulers who collect multi-stream from customers and self report data. Haulers may have to provide the CRD with the number of locations in which they provide three-stream collection, which will be applied to the companies account, and the discount then applied at the scale when disposing general refuse. The hauler will have to attest that the information is current and true and notify the CRD of any changes to number of locations.

Backyard composting has added benefits such as the production of a usable product for home gardening or landscaping and is currently being used by households throughout the region. Should a household opt out of curbside organics collection for this reason, haulers may still include these addresses in their report to the CRD. For a hauler or municipality to gain this information, a survey or form may be sent out to households within the collection program offering the new collection service (if not already in place), with an option to opt out of the curbside organics collection. If a household chooses to opt out, a reason must be provided, with an option to select their participation in backyard composting.

Additional funding or tipping fee deductions may be provided to haulers for the production and distribution of educational materials to promote organics collection, or in the development of additional waste reduction and diversion services (e.g., curbside textile collection). By incentivizing education, recycling and organics programs, the CRD empowers waste haulers to raise awareness and increase source separation for businesses, multi-family units and institutions.

## Data Collection to Support Potential Flow Control Program

Flow control is a policy in which local governments can use to manage the disposal location of waste generated both in and outside of the region, through restrictions and surcharges. The implementation of flow control would require Bylaw amendments to include a new category for out-of-region waste, at a rate higher than general refuse to discourage disposal, and could include restrictions on the exportation of regional waste for disposal out of region. This process would require an amendment to the CRD's SWMP to include flow control, and SWMP approval by the Ministry of Environment and Climate Change Strategy prior to flow control implementation.

As a first step in the pre-design of a flow control policy, the CRD may wish to collect data and information from haulers on a voluntary basis, such as the address and waste type, to understand the original location from which the waste is generated from. Haulers who choose to self-report will be eligible for the two-year hauler discounted tipping fee rate.

To gain a comprehensive understanding of where waste is generated and where it is managed, the CRD may consider implementing a waste hauler licensing program over the next 3-4 years. This would require haulers to report detailed location and waste type information. The voluntary submission of information in the short term will prepare haulers for the upcoming waste hauler licensing program, which will require all haulers to report information.

The voluntary program may involve the development of a self-reported, waste data collection system in which waste haulers can enrol to receive the tipping fee discount in exchange for location information. Incentives may also include other privileges such as access to automated scale lanes.

The information and data collected has potential to be used in mapping exercises, financial modelling of flow control surcharges and restrictions, and the associated impacts.

Potential information and data to be included in the voluntary program that may improve the CRD's understanding of waste origin and type may include the following:

- Location of generation (e.g., addresses material is collected from)
- Generating sector (e.g. residential, commercial, etc.)
- Material category
- Quantity

## 6.3.2 Long-term Programs

### Waste Hauler Licensing

Waste hauler licensing is a mechanism of flow control that works to shift the economic incentive away from landfill disposal and disposal out-of-region, mandates collection of recycling or organics alongside garbage, and requires the submission of hauler data and information. Licensed haulers may receive discounted tipping fees for waste that excludes recyclables or divertible materials. The policy can incorporate disposal levies on waste that is landfilled, sent for waste-to-energy or disposed out of region, encouraging haulers to increase source separation, and manage materials within the region. The requirement to report the origin and destination of loads not delivered to regional disposal facilities allows for increased visibility into regional waste flow, and assist in the collection of a generator or disposal levy, which may apply to waste loads disposed of out-of-region.

In 2022, the RDN submitted an update to their Waste Stream Management Licensing bylaw for waste hauler licensing and mandatory commercial recycling and organics source separation for approval from the BC Ministry of Environment and Climate Change, to achieve their goal of 90% diversion as set out in the RDN's SWMP and improve data collection and waste flow visibility. The licensing bylaw will require for-profit waste haulers to apply for a license that requires them to report monthly on<sup>4</sup>:

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<sup>4</sup> Regional District of Nanaimo. 2022. Mandatory Waste Source Separation and Waste Hauler Licensing Bylaws. Accessed from <https://www.getinvolved.rdn.ca/solid-waste->

- Total tonnage of Mixed MSW deposited at RDN Facilities,
- Total tonnage of Mixed MSW deposited at non-RDN Facilities including destination details (name and address of the disposal, waste-to-energy or material recovery facility),
- Amount of the Disposal Levy owed to the District for the calendar month.

The RDN's updated bylaw will also require that all businesses, multi-family buildings and institutions have both separate recycling and organics collection alongside garbage and require that licensed waste haulers assist their commercial customers in complying with the mandated recycling and organics collection.

Another function of waste hauler licensing is to allow for the collection of a levy to offset the loss of revenue from out-of-region waste disposal. This is proposed by the RDN within their new bylaw and is currently in place within Metro Vancouver. Metro Vancouver's Generator Levy is set at \$59/tonne and is built into the garbage tipping fee at regional facilities<sup>5</sup>. Should a waste hauler dispose of garbage at an out-of-region facility, or a facility within the region that is not owned and operated by Metro Vancouver, the waste haulers delivering garbage to those facilities would collect the Generator Levy from waste generators and remit it to Metro Vancouver. In 2017 and 2019, Metro Vancouver proposed a waste hauler licensing bylaw, in which all waste haulers collecting more than 10 tonnes per month of MSW using mechanically unloaded vehicles are required to register for licenses at \$100, with an annual renewal fee. The bylaw would require approximately 50 licensed haulers to provide recycling containers alongside garbage.

Waste hauler licensing allows the region to track the flow of waste, provides data to inform on waste diversion metrics, and allows for the collection of levies. To implement waste hauler licensing or a generator levy, the CRD would first need to gain Board approval and proceed to update their SWMP to include the waste hauler licensing program and levies, which would then require a public consultation process. Once the consultation process has been undertaken, the amended SWMP must be submitted for approval from BC Ministry of Environment and Climate Change. Once approved, the bylaws could be put forth and adopted by CRD Board.

The proposed Bylaws should undergo a stakeholder consultation process to gain feedback from the public and industry. In 2017, Metro Vancouver's proposed waste hauler licensing and generator levy bylaws were met with opposition from the Waste Management Association of BC, citing inadequate consultation, concerns over competitive disadvantage, and economic burden on taxpayers. The RDN held their open consultation period from March through November of 2021 to ensure all feedback was received prior to the review process.

Key next steps to consider in undertaking the short-term initiatives include:

- Survey and interviews to private haulers, residential and commercial customers to gain feedback to inform voluntary multi-stream incentive and data reporting program design.
- Draft hauler incentive program for both multi-stream collection and data collection.
- Create information upload template or form to be used for reporting by haulers.
- Inform haulers of new program.
- Undertake trend analysis every 6-12 months to monitor performance, determine data needs and gaps, and potential program adjustments.
- Begin public and stakeholder consultation process for waste hauler licensing program.

## 6.4 Decentralized Regional Recycling Depots

Key factors influencing the participation of waste diversion programs are user convenience and accessibility. Various regions throughout BC such as Metro Vancouver and the Cariboo Regional District operate a network of decentralized facilities across the region to provide residents access to a wide range of recycling and waste services within a reasonable distance to their locale.

bylaws#:~:text=Waste%20Hauler%20Licensing%20%E2%80%93%20Businesses%20that%20haul%20waste,for%20separating%20a nd%20collecting%20organics%2C%20recycling%20and%20garbage.

<sup>5</sup> Metro Vancouver. 2023. Generator Levy. Accessed online from <http://www.metrovancouver.org/services/Permits-regulations-enforcement/solid-waste/generator-levy/Pages/default.aspx>

Metro Vancouver and the City of Vancouver run a network of Recycling and Waste Centres throughout the region, providing residents, municipalities, and haulers throughout the region with access to recycling and waste services within a 30-minute drive time. There are eight Recycling and Waste Centres located throughout Metro Vancouver, six which are owned and operated by Metro Vancouver, and two which are owned and operated by the City of Vancouver. By 2025, each Recycling and Waste Centre will have a dedicated recycling depot located ahead of the scales. Metro Vancouver works collaboratively with the host municipalities in the procurement of land, design and development of these facilities.

In 2021, Metro Vancouver updated their funding model to support the development of the new Metro Vancouver recycling depots, as well as municipalities operating depots within the region. The funding strategy distributes the full costs associated with building, operating and maintaining a recycling depot across users by incorporating these costs into the garbage tipping fee, at an increase of \$4.00<sup>6</sup>. The model also provides municipalities that fund their own municipal recycling depots with an annual garbage tipping fee credit on a per population basis, or per volume of recyclables collected, to reduce the costs on the municipality, and further encourage waste diversion. More information on Metro Vancouver's updated funding model in support of regional recycling depots can be found in **Attachment 1**.

The CRD may wish to establish a series of CRD owned and operated recycling depots located throughout the region, and/or explore potential partnerships with municipalities in which the CRD provides annual funding or tipping fee credits for municipalities operating recycling depots. To adopt the user pay approach, an analysis of the revenue, direct costs and indirect costs of a recycling depot should be determined, and the Bylaw amended to include the cost in an updated general refuse tipping fee.

The CRD may wish to relocate the current recycling depot located at the Landfill to another more accessible area, which creates space on site at the Landfill for other diversion or recovery purposes. To determine the most optimal locations for regional accessibility, a recycling service level mapping exercise should be undertaken.

There may be challenges to the acquisition of land within the region for this purpose and should be considered when exploring this initiative. As an alternative program, there is potential to explore the feasibility of establishing CRD recycling collection services at existing private or member municipality recycling collection sites, or providing funding or annual tipping fee credits to private or member municipalities to collect additional materials for diversion at their sites.

Overall, this approach works together with existing regional programs and services provided by member municipalities, extended producer responsibility programs, non-profits, and the private sector to increase access to recycling services.

Key next steps to consider in undertaking this initiative include:

- Understand the full costs associated with building, operating and maintaining a recycling depot.
- Financial modelling to determine the annual funding or tipping fee credits to be distributed to municipalities operating recycling depots.
- Mapping of existing services and identification of general locations (e.g. 10 km<sup>2</sup>) where the development of a depot would result in optimal access across the CRD.
- Identify conceptual area needed (e.g. m<sup>2</sup>).
- For each area, identify development options. This could be the CRD, member municipality, or private company already operating a waste facility.
- Engagement with member municipalities and private waste facilities to gauge interest and gain feedback.
- Amend Bylaw to update tipping fee to include cost of recycling depot.
- Report back to the Board for feedback on potential collaboration opportunities, or CRD development.

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<sup>6</sup> Metro Vancouver. 2021. Recycling Depot Funding Strategy. Accessed online from [http://www.metrovancouver.org/boards/ZeroWaste/ZWA\\_2021-Apr-16\\_AGE.pdf](http://www.metrovancouver.org/boards/ZeroWaste/ZWA_2021-Apr-16_AGE.pdf)

## 6.5 Increased Enforcement Capacity

As the Bylaw amendments introduce banned materials and differentiated tip fee structures for mixed and source separated materials, there will be a need for enhanced, consistent Bylaw enforcement and training. The Landfill currently has one Bylaw Enforcement Officer who is on site Monday to Saturday. To meet the objectives of the Bylaw, the CRD will require increased enforcement capacity through the hiring of additional Bylaw officers. This likely will require one to two full-time officers present at the Landfill's active face and public bins , with another for general enforcement.

The officers will be required to provide public education and guidance at the Landfill recycling depot to support residents in understanding the new categories and sorting requirements. Additional officers will also be required to monitor for activities such as disposal of banned materials and identify mixed loads and take appropriate measures for enforcement.

Revisions to Schedule 19 of the CRD's Ticket information Authorization Bylaw 1857 will be required.

Proposed amendments for additional enforcement measures include:

- Increased fine rates from \$50 - \$200 to \$100 - \$500 for the various offences, detailed in Table 5, to further reinforce diversion behaviour and align with inflation.
- A graduated ticket structure with higher fines for more egregious infractions and/or repeated infractions from a designated source or waste hauler.
- Denial of service until CRD fines have been paid.
- Denial of service for chronic repeat offenders.
- Restrictions on visitors use of photography or videography on site.
- After 30 days, late payments will be charged an interest penalty fee of 1.5% per month thereafter to be consistent with unpaid fees as stated in Schedule C.

*Table 5 Proposed Updates to Fines*

Offence #	Offence	Current Fine	Proposed Fine
3.	Non-district waste <sup>1</sup>	\$100.00	\$500.00
8.	Deposit recyclable material	\$100.00	\$200.00 (first offence) \$300.00 (second offence) \$500.00 (third offence)
9.	Improper deposit mandatory recyclable	\$50.00	\$200.00
10.	Improper deposit voluntary recyclable	\$50.00	\$200.00
13.	Improper deposit EPR material	\$50.00	\$200.00
17.	Deposit unsorted renovation and demolition waste	\$200.00	\$300.00
18.	Improper deposit sorted renovation and demolition waste	\$100.00	\$200.00
20.	Fail to source separate solid waste <sup>2</sup>	\$100.00	\$200.00 (first offence) \$300.00 (second offence)

			\$500.00 (third offence)
<b>(new)</b>	Failure to pay fine <sup>3</sup>	N/A	Ban from site until fines are paid
<b>(new)</b>	Unauthorized use of photography or filming <sup>4</sup>	N/A	\$100.00
<ol style="list-style-type: none"> <li>1. Out-of-region waste is currently banned, increase fine to discourage disposal.</li> <li>2. Fines remain at \$500 for 4+ offences.</li> <li>3. Banned from Landfill until payment has been made.</li> <li>4. To protect privacy on site.</li> </ol>			

To support Bylaw enforcement capacity, the Landfill will require improvements to equipment and technology at the scale house, such as cameras to observe and photograph incoming loads, as described in Section 6.1.

A Bylaw guidance document should be developed to educate and assist officers on the required steps of enforcement (e.g., public education, warnings, tickets, etc.) and an updated threshold for tickets for consistency in applying the enforcement measures of the Bylaw amendments.

## 6.6 Summary of Actions

The following table summarizes the benefits, outcomes and proposed timelines for the key actions outlined above.

Table 6 Summary of Proposed Actions

Program / Initiative	Goals	Key Actions	Proposed Timeline
<b>Improvements to Scale House Data Collection and Equipment</b>	<p>Allow implementation of the updated tipping fee schedule.</p> <p>Track detailed information on categories, quantities, and sources.</p>	<p>Define categories codes</p> <p>Update software with categories and codes</p> <p>Train staff</p> <p>Purchase equipment (cameras)</p>	Short term (0-3 years)
<b>Zero Waste Coaching for Businesses</b>	<p>Increased waste reduction and diversion from businesses, institutions, and commercial sectors.</p> <p>Enhanced community engagement, education and awareness.</p> <p>Reduces reliance on CRD staff resources and capacity while developing green jobs.</p>	<p>Engage with non-profits in zero waste coaching for businesses.</p> <p>Understand opportunities through market sounding exercise.</p> <p>Determine approach (expanding the Rethink Waste Community Grant program or use of existing non-profit program).</p> <p>Enter into agreement.</p>	Short – Long Term (0-10 years)
<b>Hauler Incentives</b>	<p>Increased waste diversion from municipalities, businesses, institutions, and commercial sectors.</p> <p>Prepare hauler for waste hauler licensing.</p> <p>Informs out-of-region waste flow and future flow control.</p>	<p>Incentive program for multi-stream collection.</p> <p>Incentive program for voluntary data reporting (flow control light).</p> <p>Stakeholder consultation on waste hauler licencing with multi-stream collection and data reporting.</p> <p>Draft waste hauler licensing bylaw.</p> <p>Draft generator levy bylaw.</p> <p>Amendment to SWMP.</p> <p>SWMP submission to Ministry of Environment and Climate Change for approval.</p>	<p>Short term (0-3 years)</p> <p>Short term (0-3 years)</p> <p>Medium term (3-4 years)</p> <p>Medium term (3-4 years)</p>
<b>Decentralized Regional Recycling Depots</b>	<p>Increased usable space at Hartland Landfill.</p> <p>Increased recycling system access and capacity.</p>	<p>Relocation of the Hartland Recycling Depot.</p> <p>Construction of distributed CRD owned recycling depots.</p>	<p>0-3 years</p> <p>1-2 recycling depots (0-5 years), 2-4 recycling depots (5-10 years)</p>

Program / Initiative	Goals	Key Actions	Proposed Timeline
	Increased waste diversion.  Financial incentive for municipal recycling depots.	Partnerships with member municipalities or private sector depots.  Bylaw amendments to reflect user pay funding model.  Subsidies provided to member municipalities to support recycling depots.	0-3 years  0-3 years  0-10 years
<b>Increased Enforcement Capacity</b>	Increased source separation and diversion.  Public education and awareness.  Effective enforcement of Bylaw.  Increased revenue.  Behaviour change.	Deployment of 2-3 additional Bylaw officers for on-site education and enforcement.  Bylaw enforcement guidance document on new categories.  Officer training.	Short term (0-3 years)

## 7. Status Quo

The CRD may elect to not proceed with the proposed framework to modernize the tipping fee schedule and align with BC best practices. In this case, Landfill disposal will continue as a convenient and affordable option but will not reflect the increasing cost of processing and disposal and remain the lowest cost disposal option on Vancouver Island. Without incentives to source separate, materials within the mixed general refuse stream that are suitable for reuse, recycling or recovery will continue to be landfilled.

### Financial Implications

The CRD's tipping fee has remained constant since 2015. A constant tipping fee structure does not reflect the increasing processing, fuel and disposal costs of the Landfill. At a minimum, tipping fees should align with inflation. The annual CPI increase in 2022 was 6.8%, however typical inflation is around 2-3%.

### Service Delivery Implications

There will be no service disruptions to CRD operations as the current material categories of prohibited waste, controlled waste, and recyclable materials will remain the same.

EPR in BC is continually expanding which may allow for new materials to be diverted within the next 5-years, such as mattresses and foundations, and exploring the introduction of commercial and institutional paper and packaging products<sup>7</sup>. However, it is unlikely for this to result in the significant reduction of bulky wastes such as the R&D materials that the CRD is targeting.

<sup>7</sup> Ministry of Environment and Climate Change Canada. 2021. Advancing Recycling in B.C. Extended Producer Responsibility Five-Year Action Plan 2021-2026. Accessed online from [https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/extended\\_producer\\_five\\_year\\_action\\_plan.pdf](https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/extended_producer_five_year_action_plan.pdf)

Should the CRD choose to continue with the current system, the disposal rate per capita is likely to remain constant, and the CRD will have difficulty achieving their landfill life extension, and waste reduction and diversion goals outlined within the SWMP.

## 8. Closing

It is proposed that the CRD align their policies with BC best practices and modernize their tipping fee structure to achieve the targets set out in the revised SWMP. The CRD SWMP is aligned with the Ministry of Environment's Waste Reduction Hierarchy, to manage materials first through reduction, reuse and recycling, prior to considering landfill disposal, an approach that is mirrored by the actions proposed within this framework.

The CRD has an opportunity to reduce waste to Landfill, generate revenue, and explore a variety of actions to further enhance the understanding of solid waste generation within the region, while engaging in partnerships with the private sector, non-profit sector and wider community.

*This technical memorandum has been prepared by GHD for Capital Regional District. It is not prepared as, and is not represented to be, a deliverable suitable for reliance by any person for any purpose. It is not intended for circulation or incorporation into other documents. The matters discussed in this memorandum are limited to those specifically detailed in the memorandum and are subject to any limitations or assumptions specially set out.*

## PROPOSED HARTLAND LANDFILL TIPPING FEE SCHEDULE

April 2023

Material Categories <sup>1</sup>	Current Waste Type	Proposed Waste Type	Currently Banned Material	Proposed Banned Material	Current Tipping Fee (\$/tonne)	Proposed Tipping Fee (\$/tonne)
<b>Clean wood:</b> (Clean wood includes wood products that are untreated, unstained and unpainted, such as dimensional lumber, pallets, crating, wood fencing, wood shingles, wooden doors, and clean construction, renovation and demolition wood waste)	Recyclable	Recyclable	Voluntary Recyclable	Mandatory Recyclable	\$110	\$80
<b>Treated wood and wood products:</b> (Treated wood includes engineered wood products or pressure-treated, stained, or painted wood and wooden furniture that may or may not contain nails or other metal fasteners)	Recyclable (under clean wood)	Recyclable	Voluntary Recyclable	Mandatory Recyclable	\$110	\$110
<b>Asphalt roofing shingles:</b> (means roofing shingles composed of a felt mat saturated with asphalt, with small rock granules added)	General	Recyclable	No	Mandatory Recyclable	\$110	\$110
<b>Carpet and underlay:</b> (means flooring material made of woven wool or synthetic fibers and foam padding underlayment where tack stripping material has been removed)	General	Recyclable	No	Mandatory Recyclable	\$110	\$110
<b>Salvaged wood:</b> (means clean dimensional lumber greater than 4 feet in length. Unpainted, free of nails.)	Recyclable	Recyclable	Voluntary Recyclable	Mandatory Recyclable	\$110	\$0
<b>Clean renovation and demolition waste</b> (Not containing Mandatory Recyclable materials) means material that results from the construction, renovation or demolition of all or part of a building that does not contain surface coating waste, hazardous waste, prohibited waste, mandatory recyclable materials or an extended producer responsibility product.	General	General	No	No	\$110	\$150

<sup>1</sup> Material categories and definitions subject to minor modification in the final bylaw amendment.

**Appendix B**  
**Proposed Hartland Landfill Tipping Fee Schedule – April 2023**

Material Categories <sup>1</sup>	Current Waste Type	Proposed Waste Type	Currently Banned Material	Proposed Banned Material	Current Tipping Fee (\$/tonne)	Proposed Tipping Fee (\$/tonne)
<b>Unsorted renovation and demolition waste</b> (Containing Mandatory Recyclable materials) means material that results from the demolition of all or part of a building that contains hazardous waste, prohibited waste, mandatory recyclable materials or an extended producer responsibility product	General	General	No	No	\$110	<b>\$300</b>
<b>2024 General Refuse- Hauler Incentive</b> Incentive rate available to private and municipal haulers collecting <b>general refuse</b> originating from residential, commercial or institutional sources, who attest they have a program in place to ensure that organics and recyclable materials aren't going into the general refuse stream and voluntarily self-report waste collection data.	General	No	No	No	\$110	<b>\$125</b>
<b>2025 General Refuse- Hauler Incentive Rate</b> Incentive rate available to private and municipal haulers collecting <b>general refuse</b> originating from residential, commercial or institutional sources, who attest they have a program in place to ensure that organics and recyclable materials aren't going into the general refuse stream and voluntarily self-report waste collection data.	General	No	No	No	\$110	<b>\$135</b>
<b>General Refuse</b> Refuse originating from residential, commercial and institutional sources, but does not include renovation or demolition waste, yard and garden, hazardous/liquid, controlled wastes, prohibited, kitchen scraps, mandatory recyclable materials or extended producer responsibility products as defined by this Bylaw.	General	No	No	No	\$110	<b>\$150</b>