



SOLID WASTE ADVISORY COMMITTEE

Notice of Meeting on **Tuesday, July 9, 2019 at 12:30 pm to 3 pm**
Board Room, 6th floor, 625 Fisgard Street, Victoria, BC

Ariff, Nadia	King, Kelly	Maler, Tom	Speller, Rachel
Coburn, Michelle	Kurschner, Mark	Meisen, Axel	Squier, Jane
Daliran, Taaj	Laing, Dave	Monsour, Don	Tuggle, Chad
Hillis, Jason	Latta, Elizabeth	Shaw, Jeff	Wiebe, Steven
Isitt, Ben (Chair)	Lawson, Aaron	Smith, Jared	Young Jr., Stew (Vice Chair)

LUNCH WILL BE SERVED

AGENDA

1. Approval of Agenda
2. Adoption of Minutes of May 14, 2019
3. Chair's Remarks
4. Solid Waste Management Planning Process – Status Update
5. Solid Waste Management Plan Development
 - Staff Report: Solid Waste Management – Summary Update, Additional Information and Next Steps
 - Roundtable Discussion
6. Solid Waste Management Plan – Community Engagement
 - Presentation
7. Next Meeting
 - September 10, 2019
8. Closing Comments
9. Adjournment



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REPORT TO SOLID WASTE ADVISORY COMMITTEE MEETING OF TUESDAY, JULY 9, 2019

SUBJECT **Solid Waste Management Plan - Summary Update, Additional Information and Next Steps**

ISSUE

To present a summary update of the Solid Waste Management Plan, with additional information on the Hartland 2100 design concept and financial model, and to identify next steps.

BACKGROUND

In November 2017, the Capital Regional District (CRD) Board directed staff to resume work on the Solid Waste Management Plan (SWMP). A new Solid Waste Advisory Committee (SWAC) was appointed in February 2018. SWAC has met nine times since April 2018.

In October 2018, the CRD Board reviewed an assessment of the existing system, which outlined current challenges and opportunities. At the same meeting, the Board approved the goals, objectives and guiding principles for the SWMP (Appendix A). The goals are:

1. To have informed citizens that participate effectively in proper waste management practices
2. To surpass the provincial per capita waste disposal target of 350 kg/capita by 2020/2021
3. To extend the life of Hartland Landfill to 2100 plus
4. To ensure that the CRD's solid waste services are financially sustainable

From November 2018 to May 2019, SWAC worked with a consultant to develop a number of proposed strategies that focus on the first 3Rs of reduction, reuse and recycling. The list of proposed strategies and associated actions is attached in Appendix B. Some of the highlights are to:

- enhance education programs, with a focus on behaviour change
- create a new waste diversion grant program to support community-based reduction initiatives
- Increase diversion from the multi-family and business sectors
- conduct an illegal dumping campaign (evaluate effectiveness after two years)
- promote depot recycling programs for materials that cannot be recycled at the curb (evaluate effectiveness after two years)
- develop a comprehensive strategy for diverting construction, renovation and demolition materials (to be completed in two years)

Based on the proposed strategies, the consultant conducted a diversion potential analysis of materials that could be removed from the waste stream in the short, medium and long-term and recommended the following targets over the ten year length of the new SWMP:

- short-term (3 years) - 340 kg/capita
- medium-term (5 years) - 285 kg/capita
- long-term (10+years) - 250 kg/capita (this is considered an aspirational goal)

The strategies, anticipated funding and targets have yet to be endorsed by the CRD Parks & Environment Committee and CRD Board and will form part of the conversation during the public consultation process.

The proposed goals, strategies and targets support the CRD Board priority of Climate Action and Environmental Stewardship by reducing emissions from solid waste, identifying best practices to further reduce waste, increase recycling, and find beneficial uses for waste.

In addition, the SWMP plays an important role in responding to the CRD's climate emergency declaration and commitment to working towards carbon neutrality. Through focusing on the 3Rs and diverting waste from the landfill, the CRD is reducing both the upstream emissions associated with the production of goods, and the downstream emissions associated with the management of products at end-of-life, including the transport of waste to the landfill. The CRD is also working to optimize landfill gas capture and its beneficial use.

Additional Information

There are two remaining SWMP components for SWAC to review: the Hartland 2100 design concept and the solid waste financial model. Both are important topics for the public consultation process planned for the fall.

Appendix C provides an overview of the Hartland 2100 design concept, which creates a long-term vision of how garbage will be managed in the Capital Region. Hartland Landfill is a significant regional asset. Extending the capacity of the landfill to 2100 will provide certainty and allow time to explore new ways of managing waste over time, as siting of a new landfill is not considered environmentally, socially and economically feasible.

Appendix D presents the financial model for review. Funding of proposed solid waste management strategies and meeting the associated waste reduction targets will result in increased investments in programs and lower landfill revenues from tipping fees, which has the potential to reduce the solid waste financial reserves.

Next Steps

In June 2018, SWAC endorsed an initial consultation strategy. Staff have recently engaged a consultation and communications consultant to develop a communication plan and outreach materials based on this strategy.

The SWMP consultation package and an overview of the consultation plan with outreach materials will be presented to the Parks & Environment Committee and CRD Board for review in September and October 2019. If approved, staff and the consultants will commence a broad two-phase consultation process to seek feedback on the SWMP components prior to developing a draft plan. The objective of the initial conversation with the community will be to gather feedback and identify issues and potential solutions.

All input collected will be reviewed by SWAC, the Steering Committee and CRD Board and will inform the draft Solid Waste Management Plan. A second phase of public engagement seeking feedback on the draft plan is expected to take place in the spring of 2020. There will be ongoing opportunities to engage with stakeholders during both consultation phases.

RECOMMENDATION

That the Solid Waste Advisory Committee recommend to the Parks & Environment Committee to proceed to public consultation on the proposed Solid Waste Management Plan strategies and targets.

Submitted by:	Russ Smith, Senior Manager, Environmental Resource Management
Concurrence:	Robert Lapham, MCIP, RPP, Chief Administrative Officer

RS/AB:ac

Attachments: Appendix A - Guiding Principles, Objectives and Goals
Appendix B - Endorsed Strategies and Associated Actions
Appendix C - Hartland 2100 Design Concept
Appendix D - Financial Model

**CRD SOLID WASTE MANAGEMENT PLAN – REVISION 3
GUIDING PRINCIPLES, OBJECTIVES AND GOALS**

GUIDING PRINCIPLES

1. Promote zero waste approaches and influence others in support of a circular economy
2. Promote the first 3 Rs (Reduce, Reuse and Recycle)
3. Maximize beneficial use of waste materials and manage residuals appropriately
4. Support polluter-pay and user-pay approaches and manage incentives to maximize positive behaviour outcomes
5. Prevent organics, recyclables and household hazardous waste from going into the garbage, wherever practical
6. Collaborate with jurisdictions, wherever practical (replaced regional districts with jurisdictions)
7. Develop collaborative partnerships with interested parties both within and outside of the CRD to achieve regional targets set in plans
8. Level the playing field within regions for private and public solid waste management facilities

OBJECTIVES

1. Improve participation in waste reduction activities and diversion services
2. Decrease contamination levels in waste streams
3. Facilitate processing and markets for organics, recyclables and wood waste, as appropriate
4. Maximize local solid waste disposal capacity
5. Establish a long-term sustainable financial model for the CRD's solid waste service

GOALS

1. To surpass the provincial per capita waste disposal targets
2. To extend the life of Hartland Landfill to 2100 plus
3. To have informed citizens that participate effectively in proper waste management practices
4. To ensure that the CRD's solid waste services are financially sustainable

SOLID WASTE MANAGEMENT PLAN**PROPOSED STRATEGIES**

The following strategies were developed for discussion during the initial phase of the public consultation process. Each strategy has embedded actions, which are detailed in Attachment 1, in order of the 5R hierarchy of Reduction and Reuse, Recycling, and Recovery & Residuals Management.

1. Continue and Enhance Education Programs
2. Encourage Waste Prevention
3. Support Reduction of Avoidable Food Waste
4. Support Reuse Activities in the Region
5. Support Local Governments in Working towards Zero Waste and a Circular Economy
6. Continue and Enhance Policy Development
7. Increase Residential Diversion
8. Increase Multi-Family Diversion
9. Increase ICI Diversion
10. Support Existing and new Extended Producer Responsibility (EPR) Programs
11. Increase Organics Diversion and Processing Capacity
12. Increase Construction, Renovation and Demolition (CR&D) Material Diversion
13. Encourage Proper Public Space Waste Management Activities
14. Optimize Landfill Gas Management
15. Enhance Hartland Disposal Capacity

PROPOSED ACTIONS RELATED TO SOLID WASTE MANAGEMENT PLAN PROPOSED STRATEGIES

REDUCTION AND REUSE

1. Continue and Enhance Education Programs

- A. Ensure ongoing, up-to-date promotion and education resources to enable effective participation in CRD programs and initiatives.
- B. Incorporate behaviour change components wherever possible (e.g., community-based social marketing), using a variety of education and communication strategies and tools, including digital marketing tools (e.g., social media).
- C. Expand education programs to MF and ICI sector.
- D. Enhance K-12 school program to include concepts of circular economy.
- E. Collaborate with stakeholders on education campaigns, (e.g., local governments, product stewards).
- F. Continue supporting environmental stewardship recognition.
- G. Continue to engage residents on solid waste matters, using the appropriate level of consultation.

2. Encourage Waste Prevention

- A. Promote less consumption and advocate for consumer responsibility.
- B. Establish a community-based waste reduction grant program (could include food waste prevention projects).
- C. Support single-use item reduction efforts.
- D. Promote sustainable and/or packaging-free purchasing options.
- E. Advocate provincially and federally to limit or eliminate the manufacturing, distribution or sale of single use items and non-recyclable materials.
- F. Advocate provincially and federally for sustainable product design (e.g., standardized packaging that is reusable, recyclable, or compostable).

3. Support Reduction of Avoidable Food Waste

- A. Support residential food waste reduction, for example, by continuing “*Love Food Hate Waste Canada*” program.
- B. Support ICI food waste reduction, for example, by encouraging stores to donate edible food.
- C. Continue to support food recovery organizations.
- D. Advocate for regulation to clarify use-by versus best before dates and educate accordingly.

4. Support Reuse Activities in the Region

- A. Continue to provide funding to non-profits to help offset garbage tipping fees for unusable donated items.
- B. Continue to support and promote donations to reuse establishments.
- C. Support reuse, renting and sharing programs, such as tool libraries, repair cafes, sewing hubs, and other material exchange activities.
- D. Investigate free store at Hartland Landfill or other facilities.

5. Support Local Governments in Working towards Zero Waste and a Circular Economy

- A. Develop model language for bylaws, best practices, OCPs, and economic development strategies for use by local governments using research and collaboration to guide this process.
- B. Work with local governments to identify the need for solid waste facilities and zoning for waste management activities.
- C. Use policy tools to enable local recycling infrastructure.
- D. Investigate ‘Pay-As-You-Throw’ principles to use as tools to incent less waste disposal.
- E. Investigate use of clear bags for garbage or recyclables collection to encourage proper recycling of materials, where practicable and enforceable (e.g. events).

6. Continue and Enhance Policy Development

- A. Develop model procurement policies for use by local governments, non-profits, etc.
- B. Continue to expand material bans when viable alternatives exist.
- C. Investigate licensing waste management facilities in the region to encourage transparency, consistency, and a requirement that all facilities protect public health and the environment.
- D. Investigate regulatory mechanisms to manage municipal solid waste and recyclable materials in the region.
- E. Investigate options for debris from extreme weather such as community chipping days or special burning allowances in electoral areas.

RECYCLING

7. Increase Residential Diversion

- A. Continue to promote diversion of recyclable materials (including organics), ensuring that education strives to minimize contamination in these streams.
- B. Collaborate with municipal and private sector service providers to support depot diversion efforts in the region for non-curb-side materials.
- C. Encourage local processing and markets for recyclables.
- D. Develop tools, such as a guide, to support event recycling.

8. Increase Multi-Family Diversion

- A. Allocate resources to support MF recycling, for example, by developing standardized education materials.
- B. Work with local governments and private sector service providers to develop waste source separation requirements.
- C. Develop policy guide for recycling, composting and garbage space and access in multi-family developments.
- D. Collaborate with stakeholders (e.g., private haulers who service MF buildings or MF property managers) to implement support for MF recycling, such as a 'Train-the-Trainer' Program.

9. Increase ICI Diversion

- A. Allocate resources to increase ICI diversion, for example, a business waste reduction liaison.
- B. Advocate to expand the packaging and paper product EPR program to the ICI sector.
- C. Create a business waste reduction toolkit, including education about how to apply circular economy principles.
- D. Encourage municipalities to require waste management plans with business licenses.
- E. Develop policy guide for ICI space and access requirements.
- F. Work with local governments and private sector service providers to develop ICI waste source separation requirements.
- G. Investigate shifting disposal ban enforcement to generator, rather than hauler.

10. Support Existing and New EPR Programs

- A. Advocate to the province to expand EPR programs
- B. Collaborate with stewards to increase consumer awareness about EPR programs.
- C. Advocate for increased return-to-retailer opportunities.
- D. Advocate federally to standardize EPR programs across Canada.

11. Increase Organics Diversion and Processing Capacity

- A. Continue to promote organics waste diversion.
- B. Investigate developing a resilient local organics processing infrastructure.
- C. Support compost markets by purchasing back materials.
- D. Collaborate with service providers and users (e.g., local businesses) to develop guidelines for use of compostable products and packaging.

12. Increase Construction, Renovation and Demolition (CR&D) Material Diversion

- A. Develop a comprehensive CR&D strategy, including characterization of materials, best practices, and pilot projects.
- B. Develop and disseminate educational tools to support CR&D material diversion, (e.g., create an industry toolkit, a deconstruction guide and/or guidelines) for diverting and utilizing reused materials.
- C. Promote green building standards.
- D. Continue collaboration with local governments to develop and use policy tools (e.g., construction permits, building codes) to maximize diversion and to align management plans.
- E. Investigate beneficial uses of CR&D waste, including a clean wood waste ban.
- F. Investigate banning or surcharging mixed CR&D loads at the landfill to encourage source separation.
- G. Further develop programs for managing hazardous materials, like asbestos.

13. Encourage Proper Public Space Waste Management Activities

- A. Develop educational materials to prevent and reduce litter and abandoned materials in our neighbourhoods and public spaces.
- B. Continue promoting alternatives to abandoned materials and illegal dumping by educating about proper management and disposal
- C. Collaborate with stakeholders, including local governments and private sector facilities, to develop a regional approach to prevention of illegal dumping.
- D. Investigate developing regionally-aligned bylaws.
- E. Develop and pilot methodologies to 'observe, record, and report' on abandoned materials and illegal dumping incidents throughout the CRD.
- F. Investigate options for large bulky item disposal, (e.g., free drop-off days or large item pick-up days).

RECOVERY & RESIDUALS MANAGEMENT

14. Optimize Landfill Gas Management

- A. Continue to capture landfill gas for beneficial use.
- B. Investigate collaboration opportunities with educational institutions to research new beneficial uses and technologies.

15. Enhance Hartland Disposal Capacity

- A. Review ban enforcement levels, subject to recycling market conditions.
- B. Continue to operate Hartland Landfill using best practices.
- C. Develop design options to maximize disposal capacity until 2100 and beyond.
- D. Continue to conduct research and investigate emerging technologies.

HARTLAND 2100 DESIGN CONCEPT

Hartland Landfill is a significant regional asset. It is the only municipal solid waste disposal site in the capital region and is widely recognized as a leading facility in solid waste management. The goal within the new SWMP is to extend the life of Hartland landfill to 2100 and beyond. A new fill plan is currently in development that is looking at future conceptual design options to extend the capacity of the landfill beyond the current 2045 design.

There are many benefits to extending the life of the landfill. An approved long-term design provides certainty on how garbage will be managed and allows time for exploring new ways of managing waste as they develop over time. Siting of a new landfill in a largely developed and growing region is not considered environmentally, socially and economically feasible.

Planning for Hartland 2100 plus must start now to ensure effective cell design for the future. To maximize the capacity of the landfill to 2100 and beyond, the disposal area will continue to be expanded both vertically and horizontally within the existing property boundary, with rock being extracted to maximize landfill space.

Hartland Landfill is located in an area with significant bedrock outcroppings. A quarry operation is conducted annually to create space for garbage. The rock is currently used on site as landfill cover and for road construction, and excess rock is stored. In the long term, there will be an internal surplus of aggregate due to lack of storage space. The surplus rock could be utilized for off-site CRD projects.

The Hartland 2100 design concept includes the horizontal and vertical expansion of the operational footprint within the existing site property boundary. Attachment 1 shows the proposed horizontal expansion of the landfill's operational footprint within the property boundary. As shown in yellow, the property boundary will be expanded slightly to reflect a 2014 addition of 8.5 hectares to the site. Attachment 2 illustrates the vertical expansion.

Since 1999, CRD Parks has had access to parts of Hartland's property for recreation purposes, with the understanding that the land would eventually become necessary for future landfill activities. The area has been primarily used for mountain biking. The future horizontal expansion of the operating footprint will impact a small percentage of mountain bike trails. The CRD is committed to working with the mountain bike community to develop alternate trails.

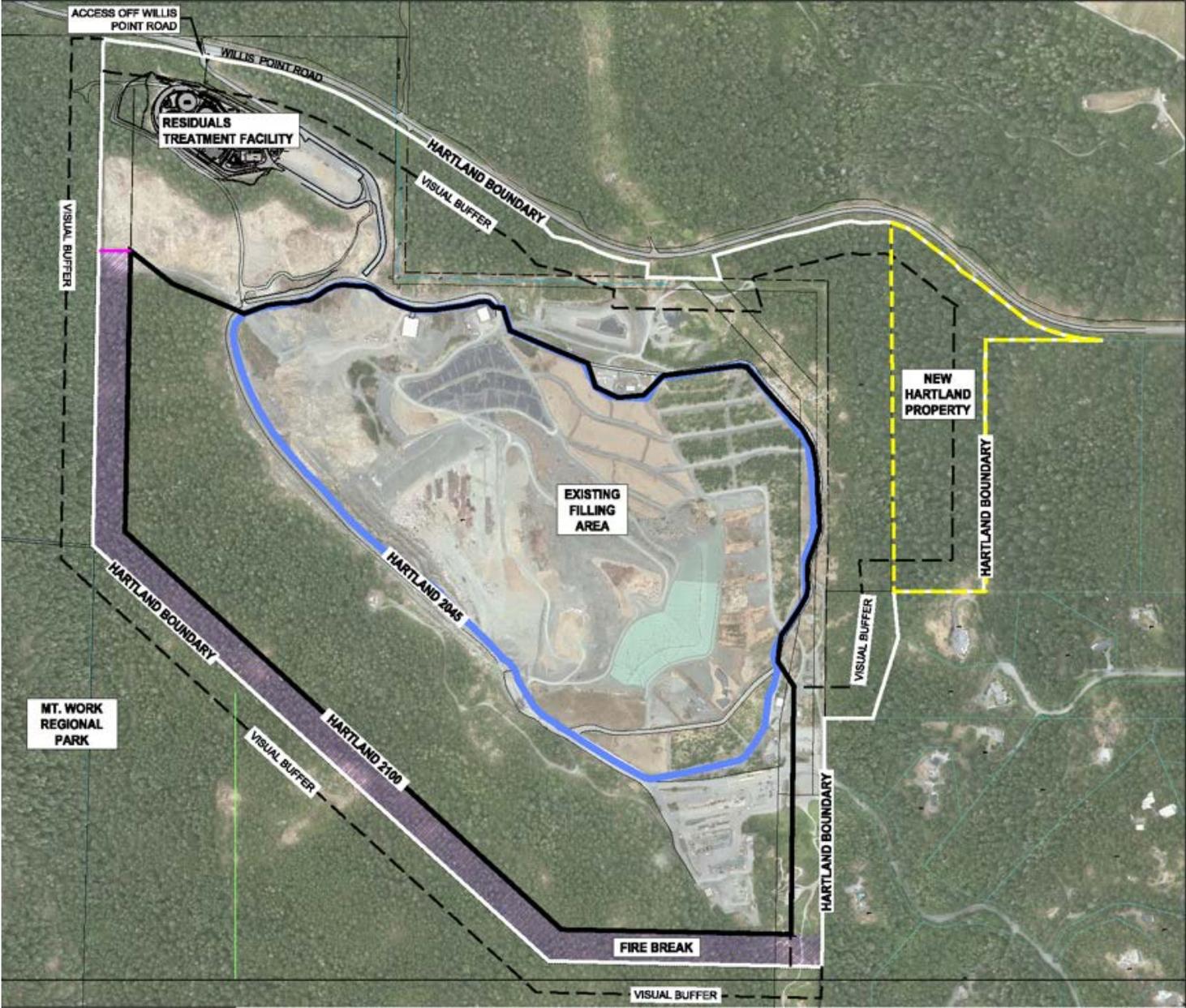
New provincial landfill criteria specify a maximum landfill road grade level of 8%. Hartland Avenue, the road used to access the landfill site, has several sections with grades greater than 8% and the steepness of Hartland Avenue has been a safety and operational concern for some waste haulers. With construction of the Residual Treatment Facility (RTF), and associated weigh scales, at the north end of the Hartland site, it is an appropriate time to plan for redirecting traffic of larger garbage loads to Willis Point Road to ensure site traffic safety. Willis Point Road, including a turning lane into the Hartland site, is designed to allow significantly greater traffic capacity than is currently occurring.

The Hartland 2100 design concept creates a long-term vision of how solid waste will be managed in our region. The province expects that regional districts conduct an effectiveness review of their SWMP every five years and renew the plan every ten years. This will provide the opportunity to assess progress and continue to explore how we manage waste in our region.

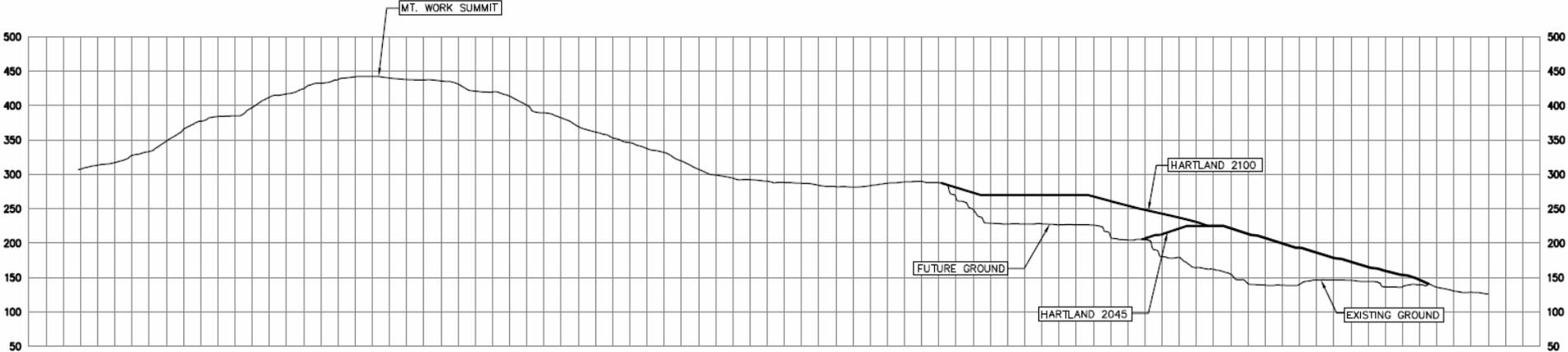
Attachment 1: Hartland 2100 Design Concept - Plan Map

Attachment 2: Hartland 2100 Design Concept – Profile Map

Attachment 1: Hartland 2100 Design Concept - Plan Map



Attachment 2: Hartland 2100 Design Concept - Profile Map



FINANCIAL MODEL

July 2019

The Capital Regional District (CRD) Solid Waste Management Plan (revision 3) has the goal of ensuring that the CRD's solid waste services are financially sustainable. Currently, the CRD solid waste division's revenues exceed its expenses. The solid waste service is 100% funded by landfill tipping fees and other solid waste revenues. There is no tax requisition required to run this CRD service.

The CRD solid waste service has significant financial capacity (approximately \$30 million) in the Sustainability Reserve that helps to stabilize fluctuations in solid waste cashflow (revenue and costs).

Revenue and cost impact of the proposed Solid Waste Management Plan initiatives:

- \$350K/year program spending (starting 2021)
- Solid waste disposal rate targets (based on plan approval in 2020)
 - decrease waste disposal to 340 kg/capita (2021-2023)
 - decreased waste disposal to 285 kg / capita (2024-2025)

As indicated Attachment 1, successful implementation of the proposed SWMP initiatives would draw down the current solid waste service Sustainability Reserve to \$5 million over the next 10 years, allowing time to adjust the solid waste business model based on actual waste diversion, program spending and any new opportunities.

Financial mitigation opportunities currently being explored by CRD Solid Waste service at the request of the CRD Board:

- Landfill Gas Utilization
- Organics processing at Hartland

Potential future financial mitigation strategies, if required, would include:

- Increase Tipping Fees
- Decrease services/expenses
- Solid waste policy/regulation
- Tax requisition

The long-term financial impact of increased waste diversion on solid waste financial reserves will also be part of the SWMP effectiveness review, which is required five years after a SWMP is approved.

Attachment 1 – Financial Impacts of SWMP Initiatives

Financial Impact of SWMP Initiatives

Reduced Tipping Volume

Additional Diversion Spending (\$350K/year & waste disposal moves to 340kg/capita [2021-23] then 285kg/capita [2024-25])

