

CAPITAL REGIONAL DISTRICT

2024 BUDGET

Environmental Resource Management

COMMITTEE REVIEW

PARTICIPATION:

All costs recovered through tipping fees.

MAXIMUM LEVY:

No requisition

MAXIMUM CAPITAL DEBT:

Authorized:	LA Bylaw 3518	12,270,000	LA Bylaw 4515	36,000,000
Borrowed:	SI Bylaw 3547	(2,000,000)		
	SI Bylaw 3677	(2,500,000)		
	SI Bylaw 3769	(2,200,000)		
Remaining:	Expired May 14, 2013	<u>\$5,570,000</u>		<u>36,000,000</u>

All previous Loan Authorizations have expired. Total debt outstanding at [Dec 31, 2023 \\$546,597](#)
 Final debt payments in [2026](#).

COMMISSION:

OPERATING COSTS - REFUSE DISPOSAL:

To be recovered through user fees

RESERVE FUND:

Solid Waste Refuse Disposal Reserve Fund, Bylaw No. 2164 (Sept. 8, 1993).
 Waste Reduction Sustainability Operating Reserve Fund Bylaw No. 3867 (Nov 14, 2012).

Service:

1.521

Environmental Resource Management

Committee: Environmental Services

Year	Population	General Refuse Rate*	Hartland Landfill General Refuse				Recycling (Diversion Revenue)			Disposal Rate kg/person
			Budget Volume (Tonne)	Actual Volume (Tonne)	Beneficial Use	Landfilled	Recycling Rate*	Budget Volume (Tonne)	Actual Volume (Tonne)	
2018	413,406	\$110	135,000	148,551 ¹	-2,120	146,431				380
2019	418,511	\$110	140,000	146,544 ¹	-1,142	145,402				382
2020	425,503	\$110	135,000	155,041 ¹	-5,476	149,565				395
2021	432,062	\$110	135,000	167,169 ¹	-1,013	166,156				400
2022	440,456	\$110	145,000	185,111 ¹	-5,107	180,004				409
2023		\$110	165,000	186,747 ²						
2024 Budget		\$150	160,000				\$80-\$110	20,300		
2025 Budget		\$155	150,000				\$80-\$110	20,300		
2026 Budget		\$160	135,000				\$80-\$110	20,300		
2027 Budget		\$165	130,000				\$80-\$110	20,300		
2028 Budget		\$170	125,000				\$80-\$110	20,300		

* Tipping fee: rate in \$/tonne

¹ Actual Tonnage Volume

² Estimated Tonnage Volume

1.521 & 1.525 - ERM			BUDGET REQUEST							
	2023 BOARD BUDGET	2023 ESTIMATED ACTUAL	2024 CORE BUDGET	2024 ONGOING	2024 ONE-TIME	2024 TOTAL	2025 TOTAL	2026 TOTAL	2027 TOTAL	2028 TOTAL
<u>GENERAL PROGRAM EXPENDITURES:</u>										
Diversion Services	16,136,927	15,989,188	16,965,035	5,753,753	-	22,718,788	23,779,580	25,025,747	25,138,408	25,454,474
Landfilling Services	10,716,470	10,515,234	11,645,185	500,000	200,000	12,345,185	12,567,020	13,548,829	13,010,202	13,308,987
Energy Recovery Services	2,277,455	2,167,231	1,568,723	-	-	1,568,723	1,580,867	1,622,310	1,610,806	1,640,338
TOTAL OPERATING COSTS	29,130,852	28,671,652	30,178,943	6,253,753	200,000	36,632,696	37,927,467	40,196,886	39,759,416	40,403,799
*Percentage Increase over prior year		-1.6%	3.6%	21.5%	0.7%	25.8%	3.5%	6.0%	-1.1%	1.6%
<u>CAPITAL / RESERVE</u>										
Transfer to Equipment Replacement Fund	30,176	30,176	200,000	-	-	200,000	204,000	204,000	204,000	204,000
Transfer to Operating Reserve Fund	15,372	2,415,621	356,635	-	-	356,635	3,162,797	-	-	-
Transfer to General Capital Reserve Fund	4,000	2,404,249	1,100,370	-	-	1,100,370	1,100,370	4,000	4,000	4,000
Transfer to Landfill Closure Capital Reserve Fund	455,120	455,120	455,120	-	-	455,120	455,120	455,120	455,120	455,120
Transfer to Millstream Remediation Debt	55,467	55,467	6,262	-	-	6,262	3,717	-	-	-
TOTAL CAPITAL / RESERVES	560,135	5,360,633	2,118,387	-	-	2,118,387	4,926,004	663,120	663,120	663,120
Debt Expenditures	314,054	290,127	1,229,666	-	-	1,229,666	2,137,816	2,726,996	2,765,453	2,791,453
TOTAL COSTS	30,005,041	34,322,412	33,526,996	6,253,753	200,000	39,980,749	44,991,287	43,587,002	43,187,989	43,858,372
*Percentage Increase over prior year		14.4%	11.7%	20.8%	0.7%	33.2%	12.5%	-3.1%	-0.9%	1.6%
Allocation Recovery										
OPERATING COSTS LESS INTERNAL RECOVERIES	30,005,041	34,322,412	33,526,996	6,253,753	200,000	39,980,749	44,991,287	43,587,002	43,187,989	43,858,372
FUNDING SOURCES (REVENUE)										
Surplus / (Deficit)										
Balance C/F from Prior to Current year										
Sale of Renewable Natural Gas (net revenue)	-	-	(495,000)	-	-	(495,000)	(6,395,537)	(6,335,817)	(6,285,331)	(6,244,071)
Revenue - Other	(8,307,913)	(9,177,490)	(8,258,750)	(1,996,000)	-	(10,254,750)	(12,854,750)	(12,854,750)	(12,854,100)	(12,854,100)
Transfer from Operating Reserve	(1,000,000)			(2,540,000)	(200,000)	(2,740,000)	-	(305,434)	(107,558)	(1,019,200)
TOTAL REVENUE	(9,307,913)	(9,177,490)	(8,753,750)	(4,536,000)	(200,000)	(13,489,750)	(19,250,287)	(19,496,001)	(19,246,989)	(20,117,371)
TIPPING FEE (based on inflation)	(20,697,128)	(25,144,922)	(24,773,247)	(1,717,753)	-	(26,491,000)	(25,741,000)	(24,091,000)	(23,941,000)	(23,741,000)
PROJECTED TONNAGE (General Refuse)	165,000	186,747	160,000			160,000	150,000	135,000	130,000	125,000
*Percentage Increase over prior year		21.5%	19.7%	8.3%	0.0%	28.0%	-2.8%	-6.4%	-0.6%	-0.8%
AUTHORIZED POSITIONS:										
On-going	25.70	25.70	25.70	3.00		28.70	28.70	28.70	28.70	28.70
Term	2.00	2.00	1.00			1.00	1.00			

Change in Budget 2023 to 2024

Service: 1.521 & 1.525 ERM

Total Expenditure

Comments

2023 Budget

30,005,041

Change in Salaries:

Base salary and benefit change	90,025	Inclusive of estimated collective agreement changes
Step increase/paygrade change	(114,623)	Term position ended
3.0 FTE Environmental Technician	303,524	2024 IBC 3a-1.1: Hartland 2100
Increase in auxiliary wages	339,700	2024 IBC 3a-1.1: Hartland 2100
Other (explain as necessary)	-	

Total Change in Salaries 618,626

Other Changes:

Standard Overhead Allocation	992,249	Increase in 2023 operating costs
Human Resources Allocation	28,189	Contribution towards 2024 Human Resources & Corporate Safety initiatives
Building Occupancy	5,416	
Contract for Services	500,000	To reflect the anticipated costs related to heavy equipment services and landfilling of standard refuse and controlled waste
	2,803,753	Additional costs related to curbside collection contract
	2,700,000	Additional costs related to processing of materials contract
	250,000	To Increase Electoral Area recycling depot funding by same ratio as curbside increases
	200,000	To fund for 2024 one-time Raincoast Foundation testing of Tod Creek
	(1,000,000)	Reduction for 2023 one-time costs for BC Hydro Termination
Promotion	521,000	Hartland Communications Campaign, Outreach, and Education project
Labour allocation	136,460	Increase in Environmental Engineering & Environmental Protection Allocation
Trf to Capital Reserve Fund	1,096,730	To fund 2024 Capital Plan requirements
Debt Servicing Expenses	915,612	Additional borrowing of \$12.2m is required to fund 2024 Capital Plan requirements
Other Costs	207,673	

Total Other Changes 9,357,082

2024 Budget

39,980,749

Summary of % Expense Increase

2024 Base salary and benefit change	0.3%
Standard Overhead Allocation	3.3%
Balance of increase	29.6%
<i>% expense increase from 2023:</i>	33.2%

% Requisition increase from 2023 (if applicable):

%

Requisition funding is (x)% of service revenue

Overall 2023 Budget Performance

(expected variance to budget and surplus treatment)

Overall Solid Waste Tipping Revenue for 2023 is forecasted to be higher than budget by \$4.4 million. Tipping fee revenues higher due to an increased quantity of solid waste being received. Recycling revenue for scrap metal (price fluctuates with the global commodity markets) is also higher than budgeted. Landfill Operations/Diversion Services/Energy Recovery services expenses are forecasted to be lower than budget for 2023 by \$450k. The estimated surplus will be split between the Capital Reserve Fund (\$2.4m) and the Operating Reserve Fund (\$2.4m).

CAPITAL REGIONAL DISTRICT
FIVE YEAR CAPITAL EXPENDITURE PLAN SUMMARY - 2024 to 2028

Service No.	1.521							
	Environmental Resource Management	Carry Forward from 2023	2024	2025	2026	2027	2028	TOTAL

EXPENDITURE

Buildings	\$0	\$350,000	\$0	\$0	\$0	\$0	\$350,000
Equipment	\$0	\$603,000	\$355,000	\$385,000	\$385,000	\$385,000	\$2,113,000
Land	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Engineered Structures	\$5,975,000	\$37,856,000	\$14,975,000	\$9,600,000	\$1,600,000	\$1,250,000	\$65,281,000
Vehicles	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$5,975,000	\$38,809,000	\$15,330,000	\$9,985,000	\$1,985,000	\$1,635,000	\$67,744,000

SOURCE OF FUNDS

Capital Funds on Hand	\$100,000	\$950,000	\$225,000	\$200,000	\$0	\$0	\$1,375,000
Debenture Debt (New Debt Only)	\$2,000,000	\$14,213,000	\$7,650,000	\$2,000,000	\$350,000	\$0	\$24,213,000
Equipment Replacement Fund	\$0	\$1,103,000	\$355,000	\$385,000	\$385,000	\$385,000	\$2,613,000
Grants (Federal, Provincial)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Donations / Third Party Funding	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reserve Fund	\$3,875,000	\$22,543,000	\$7,100,000	\$7,400,000	\$1,250,000	\$1,250,000	\$39,543,000
	\$5,975,000	\$38,809,000	\$15,330,000	\$9,985,000	\$1,985,000	\$1,635,000	\$67,744,000

Service: **1.521** **Environmental Resource Management**

Project Number 16-06 **Capital Project Title** Replacing of Small Equipments **Capital Project Description** Replacing of Small Equipments

Project Rationale Replacement of small equipments that have reached their end of life

Project Number 17-01 **Capital Project Title** Gas & Leachate Collection Pipe Extension **Capital Project Description** Gas & Leachate Collection Pipe Extension

Project Rationale To meet BC Ministry of Environment regulations, gas wells and leachate collectors are installed in each lift of refuse and have to be connected to the existing header system to collect methane gas. Well heads, valves, condensation traps, monitoring points, and piping has to be installed to each gas well and leachate collector. The gas is then conveyed to the gas plant, and the leachate is conveyed to the lined storage lagoons and then discharged into the municipal sewer. Cost estimate is derived from historical construction information and includes consulting costs to layout pipe design/headers.

Project Number 17-02 **Capital Project Title** Aggregate Production for Internal Use **Capital Project Description** Aggregate Production for Internal Use

Project Rationale Producing aggregate annually from in-situ rock provides the CRD with a number of benefits including: prolonging the landfill life (creating landfilling airspace), providing aggregate for on-site needs, effective interception of shallow groundwater inflows, cost and space savings by not having to import aggregate, and reduced social and environmental impacts by not having to truck in aggregate. Cost estimate is derived from historical tender data.

Project Number 17-04 **Capital Project Title** Progressive Closure of External Faces **Capital Project Description** Progressive Closure of External Faces

Project Rationale As specified under the BC Ministry of Environments Landfill Criteria for Municipal Solid Waste, completed landfill areas and slopes must be closed with a progressive closure system on an annual basis. The closure system consists of a clay or synthetic cover placed over a gravel drainage layer This progressive closure system stays in place until economies of scale makes it cost effective to proceed with installation of a final closure system.

Service: **1.521** **Environmental Resource Management**

Project Number 17-07

Capital Project Title Computer Equipment

Capital Project Description Computer Equipment

Project Rationale Replacement of computer equipment due to end of life cycle

Project Number 17-09

Capital Project Title Vehicle Replacements

Capital Project Description Vehicle Replacements

Project Rationale Replacement of vehicle due to end of life cycle

Project Number 17-11

Capital Project Title Food Waste Transfer Station Relocation
Planning & Construction

Capital Project Description Food Waste Transfer Station Relocation
Planning

Project Rationale The CRD has made a commitment to Hartland Residents to move the Kitchen Scraps transfer station away from the South End of the Landfill Property to alleviate resident's nuisance concerns (noise, vector, odour etc). The Kitchen Scrap transfer station will need to move to the North End of the property when commercial traffic moves to Willis Point in 2024. This project meets an immediate and future need to relocate the Kitchen Scrap transfer station. Phase 1 of the project will be complete in 2023 (moving the new food transfer facility). Phase 2 includes all improvements related to leachate, power, storm water, lighting, access stairs, vector control, fall protection enhancements etc. needed to support operation of the facility over the next 30+ years. This project covers the planning and construction costs related to relocating the kitchen scrap transfer station.

Service: 1.521 Environmental Resource Management

Project Number 17-12

Capital Project Title Hartland Environmental Performance Model

Capital Project Description Hartland Environmental Performance Model

Project Rationale The CRD is interested in developing a site-specific computer model that integrates engineering design with environmental performance for the Hartland Landfill. In 2016 the BC MOE made revisions to the BC Landfill Criteria. Many of Hartland's design and operations are already compliant, however a preliminary review identified additional conformance requirements for Hartland under the status quo. The model will enable the CRD to better demonstrate technical justification and environmental conformance over the lifespan of the landfill.

Project Number 17-14

Capital Project Title Landfill Gas Utilization

Capital Project Description Landfill Gas Utilization

Project Rationale The landfill gas is currently utilized as fuel to power a generator system to generate electricity and sold to BC Hydro. The excess landfill gas which is approximately 50% currently generated from the landfill is destructed by burning. ERM and EE have initiated a project to process the landfill gas to a higher quality could be utilized as natural gas. Fortis BC is interested to purchase the processed landfill gas from the CRD. The projected gas revenues from Fortis is significantly higher than the current arrangement with BC Hydro. This project is to carry out the feasibility study, preliminary engineering, and conduct business case and triple-bottom-line analysis, if the project proved to be feasible the detailed design and implementation will be followed.

Project Number 18-01

Capital Project Title Interim Covers

Capital Project Description Interim Covers - West and North Slopes

Project Rationale Following Golder's Leachate Management Plan, once an active landfilling cell is completed, but hasn't reached future filling contours, tarping is required to shed rainwater and divert to the freshwater collection system to prevent it from entering the leachate collection system and overwhelming the leachate storage ponds. Cost estimate is derived from historical in-house cost data.

Project Number 18-02

Capital Project Title Paving of Service Roads

Capital Project Description Paving of Service Roads

Project Rationale To ensure compliance with BC Ministry of Environment Operating Certificate for the Hartland Landfill, continuous improvement is made to ensure nuisance dust generated at the site is minimized from operations. Repairs and new pavements are added in high traffic areas to minimize dust generation and reduce dependance on costly short term dust mitigation measures (ie. water trucks, application of lignosulfonate etc) and to improve road conditions throughout the lanfill property. Estimate is derived from historical costs.

Service: 1.521 Environmental Resource Management

Project Number 18-03 Capital Project Title Cell 3 Bottom Lift Gas Wells / Leachate Drain Capital Project Description Cell 3 Bottom Lift Gas Wells / Leachate Drain

Project Rationale To meet BC Ministry of Environment regulations, gas wells and leachate collectors are installed in each lift of refuse and have to be connected to the existing collection systems to collect methane gas. Well heads, valves, condensation traps, monitoring points, and piping has to be installed to each gas well and leachate collector. The gas is then conveyed to the gas plant, and the leachate is conveyed to the lined storage lagoons and then discharged into the municipal sewer. Estimate is derived from historical costs.

Project Number 18-05 Capital Project Title Controlled Waste & Asbestos Area Development Capital Project Description Controlled Waste & Asbestos Area Development

Project Rationale Controlled waste and asbestos areas within the landfill footprint are required to be developed in conjunction with active cells. BC Ministry of Environment regulatory requirements must be met on a continual basis. Asbestos is a high risk material that requires proper planning and special burrial to ensure safe disposal.

Project Number 22-01 Capital Project Title Sedimentation Pond Relining Capital Project Description NW Sedimentation Pond Relining & Expansion

Project Rationale To prevent leakage and fines from migrating off site into the north freshwater drainage area, the sedimentation pond must be relined. In addition the sedimentation pond must be enlarged to meet MOE requirements for retaining 24 hrs of precipitation from a 100 year storm event. Finally, the sedimentation pond requires inlet valving and piping to permit flows to be diverted to the upper lagoon in the event there is an onsite spill that must be contained and diverted from fresh water courses.

Project Number 22-02 Capital Project Title Cell 4 Liner Installation Capital Project Description Cell 4 Liner Installation

Project Rationale A new drainage and liner system will ensure effective removal of leachate from within the new Cell 4 area and prevent any off site migration. The liner will also include an underdrain which will relieve pore pressure and ensure fresh ground water does not contribute to ongoing leachate collection and processing.

Project Number 22-03 Capital Project Title Leachate Line Decommissioning Capital Project Description Leachate Line Decommissioning

Project Rationale The new Centrate Return Line built as part of the CORE Area Wastewater project carries all of the leachate from Hartland along with the planned and phased centrate from the Residuals Treatment Facility. This project has been set up to facilitate a planned and phased decommissioning of the old leachate line now that it is no longer required.

Service: 1.521 Environmental Resource Management

Project Number 22-06 Capital Project Title Hartland FIRE Safety Improvements Capital Project Description Installation of new Fire Line

Project Rationale Hartland has purchased a new fire pump and related components in order to mitigate risk from a major fire at the landfill. As part of the system a new fire line is required to be installed starting from near the lower lagoon and run all the way to the crest of the landfill. Phase 2 (2023) includes a means to roll/unroll 6" layflat hose, 2" firefighting hose and acts as an anchor point for the main fire line. The system will allow operations to setup the hose system near the working face to allow the fire department the best access to leachate resources to fight fires. Includes design, procurement and installation of the system.

Project Number 22-07 Capital Project Title Recycling Area Upgrades Capital Project Description Recycling Area Upgrades

Project Rationale The project has been set up to conduct a design review of the existing recycling area at Hartland and investigate changes relating to efficient accessibility due to growing public interest in the depot and to include safety considerations such as protection from the sun during hot weather.

Project Number 22-10 Capital Project Title Storm Water Sedimentation pond Emergency Repairs Capital Project Description Storm Water Sedimentation pond Emergency Repairs

Project Rationale Leachate has been detected getting into the fresh water sedimentation pond. This project has been set up to explore sources of contamination and make remedial works to the pond, incoming pipes and outgoing infrastructure as necessary to ensure containment of any contaminants. This project also includes the installation of any new monitoring wells, including consulting fees to locate, prove/commission and report findings/recommendations.

Project Number 23-02 Capital Project Title Contractor Workshop Relocation Capital Project Description Contractor Workshop Relocation

Project Rationale The current contractors workshop is located in the future Cell 5 of the landfill and must be relocated so critical landfill infrastructure can be completed for Cell 4, 5 and 6. This project includes removal of the existing structure and reuse (if economical) in a new location adjacent to future cells so the operations contractor can conduct repairs on large landfill operations equipment (Packer, Bull-Dozer, excavators etc).

Project Number 23-03 Capital Project Title Cell 4, 5 & 6 gas well layout Plan Capital Project Description Cell 4, 5 & 6 gas well Plan

Project Rationale This project allows for design services to provide a conceptual layout of new gas wells in Cells 4, 5 & 6 and the tie-in to gas wells on the North Slope from Cells 2 and 3 as garbage is landfilled against the North Slope.

Project Number 23-04 Capital Project Title North End Commercial Access Improvements Capital Project Description North End Commercial Access Improvements

Project Rationale This project includes necessary improvements to ensure the North Entrance and Scales are equipped for fully automated commercial access off Willis Point Road when Cell 4 is ready for filling. Improvements include landscaping, scale house improvements, automated gates, staging lanes, card readers/scanners, RFID systems, scale safety rails, bollards, radio intercoms, sidewalks, signage, etc.

Service: 1.521 Environmental Resource Management

Project Number 23-05 Capital Project Title Existing Manual and Commercial Scale Upgrades Capital Project Description Existing Manual and Commercial Scale Upgrades

Project Rationale The South Entrance Commercial scale approach/exit ramps are in poor condition. This project includes sawcutting and removal of old scale ramps and pouring new concrete with Rebar to eliminate further safety hazards to trucks and employees. The South Entrance Manual Scale deck is in poor condition. It requires replacement and/or major repair. This project accounts for all work that needs to be done after detailed assessment to ensure life of the existing manual and commercial scales can continue reliably for the next 20 years.

Project Number 24-01 Capital Project Title Cell 5&6 GRW Capital Project Description Cell 5&6 Gravity Retaining Wall Construction

Project Rationale This project will allow for the construction of a new mounded structural earth berm north of cell 1&2 at 5 corners intersection to serve as the new toe of cells 5 & 6. As part of this berm, the project includes installation of a critical sub-grade landfill leachate containment system (grout wall/curtain) and raising the clay containment berm from 130mAsl to 135mASL to ensure leachate capture from future landfill cells 4, 5 & 6. The project also includes relocation of any existing infrastructure (LFG, Leachate, Water, electrical etc) that currently resides in the future footprint of the MSE berm.

Project Number 24-02 Capital Project Title Hartland North Master Plan Capital Project Description Hartland North Master Plan

Project Rationale With the recent completion of the new Residuals Treatment Facility and associated access and new scales at Hartland North, this design project will ensure that there is adequate future planning and integration with the existing landfill site

Project Number 24-03 Capital Project Title Hartland Amenity Project Capital Project Description Intersection Upgrade

Project Rationale This project considers all road and intersection improvements necessary to move commercial access from Hartland Avenue to Willis Point Rd.

Project Number 24-04 Capital Project Title Biosolids Beneficial Reuse /RDF Building Capital Project Description Biosolids Beneficial Reuse /RDF Building

Project Rationale This project will allow for the replacement of the old biosolids storage barn with a new Sprung Structure for mixing and repurposing of dried biosolids and other refuse derived fuel generated at the Hartland site.

Project Number 24-05 Capital Project Title Cell 5 Liner Construction Capital Project Description Cell 5 Liner Construction

Project Rationale A new drainage and liner system will ensure effective removal of leachate from within the new Cell 5 area and prevent any off site migration. The liner will also include an underdrain which will relieve pore pressure and ensure fresh ground water does not contribute to ongoing leachate collection and processing.

Service: 1.521 Environmental Resource Management

Project Number 24-06 Capital Project Title Cell 1, 2 & 3 Transition Liner Capital Project Description Cell 1, 2 & 3 Transition Liner

Project Rationale A new drainage and liner system will ensure effective removal of leachate above Cells 1 & 2 from garbage placed on top of it from cells 4, 5 and 6. This liner provides continuity, separation and acts as a transition between old cells of the landfill and cells 4-6. The liner will also include an underdrain which will relieve pore pressure and ensure leachate from Cell 1, 2 & 3 can properly drain to heal basin or the upper lagoon.

Project Number 24-07 Capital Project Title Relocation of N. Toe Road Sedimentation Pond Capital Project Description Relocation of N. Toe Road Sedimentation Pond

Project Rationale The North Toe Road fresh water sedimentation collection pond sits on top of Cell 1 garbage. The future Gravity Retaining Wall will be constructed on top of the pond so it must be relocated.

Project Number 24-08 Capital Project Title North End Fence Replacement Capital Project Description North & East Fence Replacement

Project Rationale The fence line from the Upper lagoon to the new RTF driveway entrance is made up of various fencing materials. This project provides proper fencing to ensure a continuous perimeter around Hartland property.

Project Number 24-09 Capital Project Title Diversion Transfer Station Capital Project Description Diversion Transfer Station

Project Rationale Starting Jan 1, 2024 the landfill will ban carpet, wood and asphalt shingles. These will be mandatory recyclable materials. A new transfer depot to receive, process and ship these diverted streams to end markets is required. This project covers all equipment and capital improvements required to facilitate this service.

Project Number 24-10 Capital Project Title RNG Spare Parts Inventory Capital Project Description RNG Spare Parts Inventory

Project Rationale Upon Startup of the new LFG RNG facility, a spare parts inventory is required. Parts will be selected by HRRG and paid for by CRD for the 25 year operating agreement. This project covers the initial capital outlay for spare parts.

Project Number 24-11 Capital Project Title Traffic Pattern Changes - Site Signage Capital Project Description Traffic Pattern Changes - Site Signage

Project Rationale Site-wide signage, delineators, signals, digital entrance signs and barriers required to facilitate new traffic patterns associated with relocation of Commercial traffic from Hartland Ave to Willis Point Rd, opening cell 4, relocation of the kitchen scrap transfer station and a new diversion transfer station.

Project Number 25-01 Capital Project Title NE & NW Aggregate Stockpile cover Capital Project Description NE & NW Aggregate Stockpile cover

Project Rationale This project allows for the installation of temporary impermeable membranes to be placed overtop the NE and NW shot-rock storage stock piles to protect the environment from minerals may runoff with precipitation.

Service: 1.521 Environmental Resource Management

Project Number 25-02 **Capital Project Title** North End Wheel Wash **Capital Project Description** North End Wheel Wash

Project Rationale This project accounts for a new commercial truck wheel wash system to be installed on the North End to ensure trucks don't track mud onto Willis Point Road.

Project Number 25-03 **Capital Project Title** Landfill Gas capture to meet New Federal **Capital Project Description** Landfill Gas capture to meet New Federal

Project Rationale Environment & Climate Change Canada has released a proposed Landfill Methane Regulation that is expected to come into force in Q1/Q2 of 2024, with the intent of reducing fugitive landfill emissions across the country. The regulation sets thresholds for surface emissions at landfills emitting more than 10,000 tonnes of CO₂e per year (Hartland exceeds this). Based on required monitoring events, any surface methane concentrations that exceed proposed levels require a corrective action plan and mitigation within a specified timeframe. Based on current surface emissions data, it is expected that Hartland will need to implement additional controls, improve gas collection, or repair infrastructure to reduce surface methane concentrations to achieve compliance with these proposed limits.

Project Number 25-04 **Capital Project Title** Hartland Operating Certificate Renewal **Capital Project Description** Hartland Operating Certificate Renewal

Project Rationale Hartland's Operating Certificate (OC) has not been modified since January 27, 2010. CRD has committed to updating its OC in light of recent MOE discussion and approval of ERM's SWMP. This project covers staff time and consultant/legal fees to assist the CRD in updating the OC with the MOE.

Project Number 26-01 **Capital Project Title** Cell 4 & 5 Bottom Lift Gas Wells / Leachate Drain **Capital Project Description** Cell 4 Bottom Lift Gas Wells / Leachate Drain

Project Rationale To meet BC Ministry of Environment regulations, gas wells and leachate collectors are installed in each lift of refuse and have to be connected to the existing collection systems to collect methane gas. Well heads, valves, condensation traps, monitoring points, and piping has to be installed to each combination gas well and leachate collector. The leachate is then conveyed to the lined storage lagoons and then discharged into the municipal sewer. Estimate is derived from historical costs.

**1.521 Environmental Resource Management
ERF Reserve Fund Schedule
2024 - 2028 Financial Plan**

ERF Reserve Fund Schedule

ERF: ERM ERF or PERS Fund for Equipment
--

Equipment Replacement Fund Fund: 1022 Fund Centre: 101447	Estimate	Budget				
	2023	2024	2025	2026	2027	2028
Beginning Balance	2,594,261	2,366,326	1,463,326	1,312,326	1,131,326	950,326
Planned Purchase (Based on Capital Plan)	(258,111)	(1,103,000)	(355,000)	(385,000)	(385,000)	(385,000)
Transfer to/from Ops Budget	30,176	200,000	204,000	204,000	204,000	204,000
Disposal of equipment	-	-	-	-	-	-
Interest Income*	-	-	-	-	-	-
Ending Balance \$	2,366,326	1,463,326	1,312,326	1,131,326	950,326	769,326

Assumptions/Background: ERF Reserve to fund replacement of computer equipment and for PERS (Priority Equipment Replacement) type equipment that lasts less than 15 years
--

* Interest should be included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.

**1.521 Environmental Resource Management
 Capital Reserve Fund Schedule - ERM
 2024 - 2028 Financial Plan**

Capital Reserve Fund Schedule - ERM

Capital Reserve Fund ERM - Landfill Closure Portion, Capital Reserve Portion, and Recycling Depots Portion

Capital Reserve Fund Schedule

Bylaw 2164 established a Solid Waste Refuse Disposal Reserve Fund for the ERM Service (was called Solid Waste Service). There are three portions in the Reserve Fund: Landfill Closure, restricted funds to cover the liability of closing Phase 2 - 4 and post-closure maintenance. Capital Reserve is working capital and not restricted.

	Estimate	Budget				
	2023	2024	2025	2026	2027	2028
Landfill Closure Portion Fund: 1020 Fund Centre: 101363						
Beginning Balance	12,695,022	13,613,753	14,068,873	10,523,993	4,979,113	5,434,232
Planned Capital Expenditure (Based on Capital Plan)	-	-	(4,000,000)	(6,000,000)	-	-
Transfer to/from Ops Budget	455,120	455,120	455,120	455,120	455,120	455,120
Interest Income*	463,611	-	-	-	-	-
Ending Balance \$	13,613,753	14,068,873	10,523,993	4,979,113	5,434,232	5,889,352

Assumptions/Background:
 Liability reserve to fund closure of Phase 2-4 and post closure maintenance.

* Interest should be included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.

Capital Reserve Fund Schedule

Capital Reserve Portion Fund: 1020 Fund Centre: 101364	Estimate	Budget				
	2023	2024	2025	2026	2027	2028
Beginning Balance	10,658,469	12,116,098	6,037,468	4,383,838	3,683,838	2,433,838
Planned Capital Expenditure (Based on Capital Plan)	(2,350,000)	(7,175,000)	(2,750,000)	(700,000)	(1,250,000)	(625,000)
Transfer from Air Space Reserve Funds	1,000,000					
Transfer to/from Ops Budget	2,400,249	1,096,370	1,096,370	-	-	-
Interest Income*	407,379	-	-	-	-	-
Ending Balance \$	12,116,098	6,037,468	4,383,838	3,683,838	2,433,838	1,808,838

Assumptions/Background:

* Interest should be included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.

Capital Reserve Fund Schedule

Recycling Depots/Compost Center Reserve Portion Fund: 1020 Fund Centre: 102102	Estimate	Budget				
	2023	2024	2025	2026	2027	2028
Beginning Balance	16,920	17,185	21,185	25,185	29,185	33,185
Planned Capital Expenditure	(3,734)	-	-	-	-	-
Transfer to/from Ops Budget	4,000	4,000	4,000	4,000	4,000	4,000
Ending Balance \$	17,185	21,185	25,185	29,185	33,185	37,185

Assumptions/Background:

Reimburse operating budget for capital expenditures spent by Compost Center.

**1.521 Environmental Resource Management
Operating Reserve Summary
2024 - 2028 Financial Plan**

Profile

Environmental Resource Management

Bylaw 3867 - established Operating Reserve for the ERM Service to be used by the service for: mitigating fluctuations in tipping fee revenue and for covering operational expenditures as required, including debt servicing.

Operating Reserve Schedule

Operating Reserve Schedule Fund: 1500 Fund Center 105509	Estimate	Budget				
	2023	2024	2025	2026	2027	2028
Beginning Balance	26,910,018	22,048,051	4,296,686	7,109,483	6,104,049	5,996,491
Planned Purchase - RNG project	(2,000,000)	(9,468,000)		-	-	-
Planned Capital Expenditure (Based on Capital Plan)	(6,250,000)	(5,900,000)	(350,000)	(700,000)		(625,000)
Transfer to/from Ops Budget	2,415,621	(2,383,365)	3,162,797	(305,434)	(107,558)	(1,019,200)
Interest Income*	972,411			-	-	-
Total projected year end balance	22,048,051	4,296,686	7,109,483	6,104,049	5,996,491	4,352,291

Assumptions/Background:

Reserve for rate stabilization

* Interest should be included in determining the estimated ending balance for the current year. Interest in planning years nets against inflation which is not included.