

Environmental Resource Management Annual Report

Capital Regional District | 2016



Making a difference...together

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Overview of CRD Solid Waste & Resource Management

Background

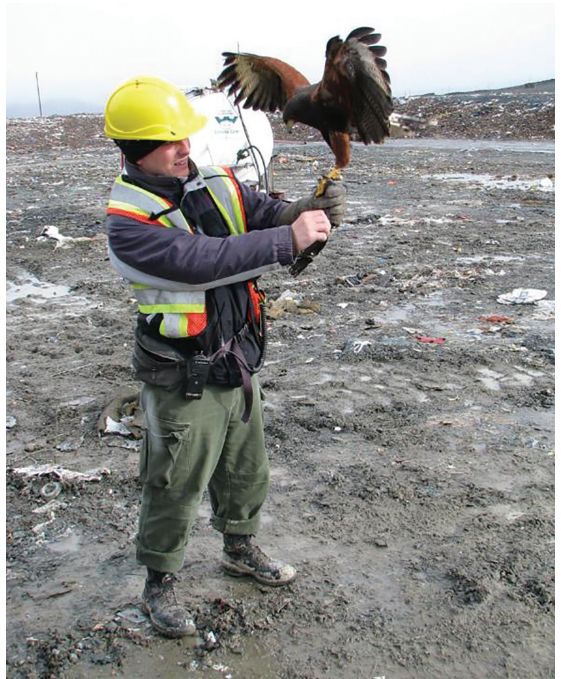
The Capital Regional District (CRD) is the regional government for 13 municipalities and three electoral areas on southern Vancouver Island and the nearby Gulf Islands, serving more than 375,000 citizens. There are 22 First Nations whose traditional territories span portions of the region, with 11 of those Nations holding reserve land throughout the capital region.

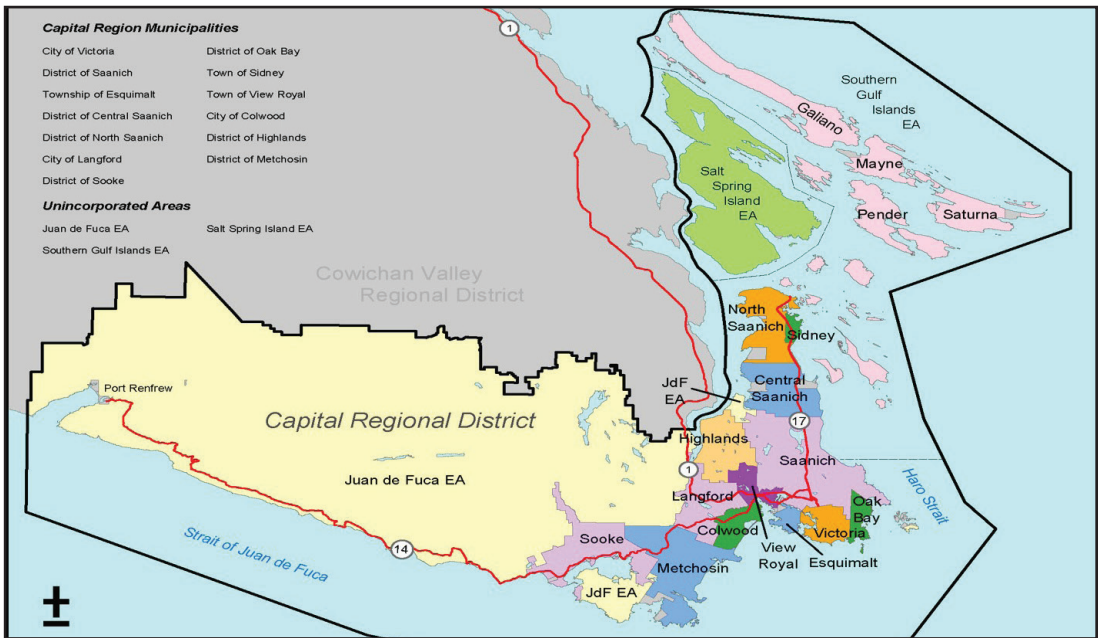
Solid Waste Disposal

The CRD became responsible for solid waste disposal for the region in 1973 when the Province of British Columbia directed all regional districts to take control of solid waste disposal within their borders.

In 1975, the CRD acquired Hartland landfill, which had been operating as a private facility since the early 1950s. Located in the District of Saanich, the facility continued to be operated by a private contractor until 1985, when the CRD assumed direct operation of the site.

In 2008, the Highest Waste Management Facility (now owned and operated by Tervita Corporation) was added to the CRD Solid Waste Management Plan. The Tervita Highest Facility is located in the District of Highlands and primarily manages construction and demolition material.





Solid Waste Collection

Residential garbage and kitchen scraps collection is provided by municipal programs in six of the region's municipalities. Private subscription services and various public and private depot drop-off locations are available to residents in the remaining seven municipalities and three electoral areas. The CRD provides region-wide residential recycling through a combination of curbside and depot programs under an agreement with Recycle BC.

The industrial, commercial and institutional sector is serviced through private collectors and depots.

	SERVICE PROVIDER
RESIDENTIAL MATERIALS	
Esquimalt	Municipal Programs
Oak Bay	
Saanich	
Sidney	
Victoria	
View Royal	
Central Saanich	Private Sector Services
Colwood	
Highlands	
Langford	
Metchosis	
North Saanich	
Sooke	
Salt Spring Island EA	
Southern Gulf Islands EA	
Juan de Fuca EA	
BUSINESS MATERIALS	
All Areas	Private Sector Services

Solid Waste Management Plan

A solid waste management plan is a legally mandated document by the Province of British Columbia. The original CRD Solid Waste Management Plan (SWMP) was approved by the Minister of Environment in 1989. There have been two subsequent revisions to the original plan plus eight amendments. In 2012, the CRD started the development of a new SWMP and appointed a Public and Technical Advisory Committee. Work on the new plan was put on hold in 2015 to investigate integrated resource management opportunities.

Environmental Resource Management Division

Environmental Resource Management's (ERM) mission is to efficiently and effectively manage the region's solid waste resources in an environmentally, socially and economically responsible manner. The ERM division is responsible for municipal solid waste management in the Capital Region, including waste reduction, recycling programs and operation of Hartland landfill.

The ERM division is part of the CRD Parks & Environmental Services department and consists of:

Diversion Services

- Planning and policy
- Recycling and composting programs

Recovery Services

- Landfill gas capture
- Electricity generation

Landfilling Services

- Disposal services
- Environmental compliance

ERM reports to the Environmental Services Committee (ESC), which also acts as the steering committee for the development of the new SWMP.

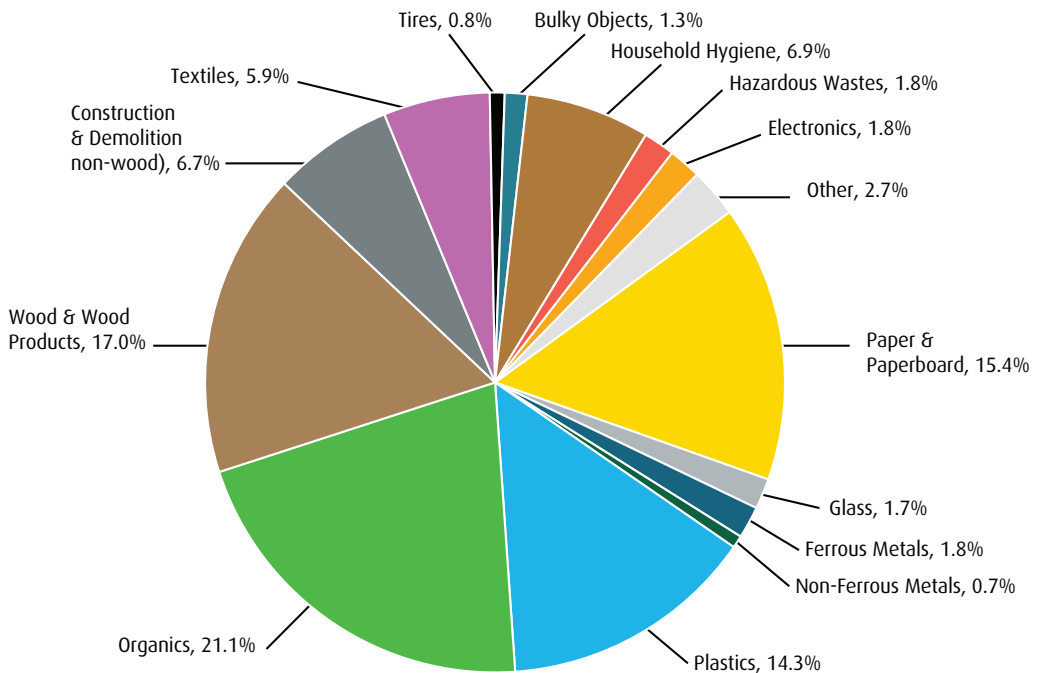


Waste Stream Analysis

Since 1990, the CRD has commissioned six studies to assess the composition of waste being landfilled at Hartland. These studies provide valuable benchmark data and analysis for evaluating the success of existing solid waste programs and planning future initiatives.

The sixth waste stream analysis took place in 2016. The results indicate a broad regional trend towards decreased per capita waste generation. Organic waste disposal dropped by 37.5% as compared to the 2010 study, indicating the successful launch of the 2015 kitchen scraps bin. Paper generation decreased by 18% and plastics by 5%. Wood and wood products increased by 15%, likely due to more construction activities in the region. All other materials remained relatively consistent compared to the previous study in 2010.

2016 SOLID WASTE STREAM COMPOSITION STUDY RESULTS



Solid Waste Diversion Strategy

Environmental resource management in the Capital Regional District is based on the 5R hierarchy of Reduction, Reuse, Recycling, Resource Recovery and Residual Management. The plan is to extend the life of Hartland landfill by minimizing waste disposal and maximizing diversion opportunities.

In 2014, the Ministry of Environment created the BC Waste Disposal Calculator and adopted a new service plan target of 350 kg/capita solid waste disposal by 2020. Based on the Ministry's revised calculation method, the CRD's per capita disposal rate was 348 kg/capita in 2016.



Ministry of Environment 5R Pollution Prevention Hierarchy

Reduce & Reuse

Education & Outreach Programs

A number of education and outreach programs are in place to support solid waste disposal and diversion services.

Activities include:

- Education and outreach for all solid waste programs
- Communication planning and research
- Advertising, promotional and educational materials
- Media relations (print, radio, television and social media)
- Presentations, tours and outreach displays
- Hartland bi-annual open house



Information Desk

The Info Desk is an essential part of education and outreach programs. This service responds to waste reduction, waste management and general Hartland landfill and recycling facility inquiries. An automated voice messaging service (250-360-3030) is available 24 hours a day and messages are followed-up within 24 hours on weekdays. Waste and recycling information can also be obtained by visiting the CRD website at www.crd.bc.ca/waste or emailing infoline@crd.bc.ca.

MyRecyclopedia.ca

MyRecyclopedia.ca contains a comprehensive online listing of household products and items—from aerosol containers to zinc—and includes the environmental story behind each item, recycling facility listings and tips on how to reduce and reuse in daily living. MyRecyclopedia was developed to encourage sustainable practices and to reinforce the 3Rs of Reduce, Reuse and Recycle and receives over 200,000 web visits per year.

The Hartland Learning Centre

Environmental education is of paramount importance to the CRD, and the Hartland Learning Centre allows for place-based learning, which gives our youth and our communities a chance for experiential, interactive involvement in education. Place-based learning links a learner to the space around them, creating awareness of natural and social history and the relation of our community with the rest of the world.

Holiday Campaign

Every holiday season, we run a “Remember the 3Rs this Holiday Season” campaign to remind residents to make the 3Rs part of their holiday actions. Since 2011, in partnership with Metro Vancouver, the seasonal “Creating Memories, Not Garbage” campaign has been delivered to capital region residents. The purpose of the campaign was to engage and inspire residents to celebrate the holidays without creating unnecessary waste that will end up at Hartland landfill.

Compost Education Centre

The Compost Education Centre (CEC) was established in 1992 to educate CRD residents about composting, ecological gardening practices and soil conservation. Under contract to the CRD, the CEC annually offers presentations, workshops, educational compost demonstrations, volunteer training, a monthly e-newsletter and maintains the CEC Hotline and website.

In 2016, the CEC delivered 153 school programs to 2,825 children from Preschool to Grade 12, and facilitated 45 community workshops and learning events on topics from Soil Science 101, to Grow Your Own Food and Composting Basics. Over 96,500 residents participated in one of twenty-five community events, documentary nights and community compost demonstrations. In 2016, over 8,000 residents visited the CEC’s demonstration site or participated in an educational community event or compost demonstration.

Over the course of the year, the CEC hosted five core community education open houses, including the spring and fall organic plant sales, Mushroom Education Day, International Soil Awareness Day, and Rainy Days, a weekend devoted to rainwater harvesting and water conservation education and awareness. These educational events encourage stewardship of the environment and give community residents the tools and skills to compost, grow their own food and conserve soil and water. The CEC continues to support the CRD kitchen scraps landfill ban by programming workshops and events that emphasize accessible education around food waste diversion, both on and off-site. The CEC promotes the use of backyard composting and food waste digesters and has increased its capacity in 2016 to better serve the rural regions of Sooke and the Gulf Islands. Since 1992, the GVCEC has made over 1,025,000 contacts with CRD residents!



Dallas Road Beach Clean-up Volunteers

Community Clean-Up Funding

The CRD Community Clean-up program has been supporting non-profit groups that make visible environmental improvements to their community through organized clean-ups, since 1997. Funding provided supports:

- Collection, processing and marketing of recyclables recovered during clean-up
- Container rental for transportation and disposal of non-recyclable material
- Supplies, such as rubber gloves and collection bags

In 2016, the CRD provided funding to seven non-profit groups, including the Burnside Gorge Community Association's Annual Gorge Waterway Clean-up which has been a recipient of funding since the program inception.

Diversion Funding for Non Profit Recycling Organizations

Since 1992, the CRD has provided funding to non-profit organizations involved in recycling clothing and used household goods. The funding assists with their garbage disposal costs at Hartland, in recognition that some donated used goods are unusable and destined for the landfill. Ten organizations participated in the program in 2016.

Hartland Reusable Materials Program

The CRD partners with five organizations for the management of donated items received in the public drop-off area at Hartland. Goods such as textiles, books, household items and bicycles are redistributed through a variety of networks operated by these non-profit associations.

Since the program's inception in 1989,
434,000 tonnes of curbside recycling
have been collected.



Recycle

Recycling Programs

Curbside Recycling

Under agreement with Recycle BC, the CRD provided 123,457 households with curbside recycling service for packaging and printed paper (PPP) in 2016. The CRD Blue Box Program has successfully transitioned to a three-stream recycling model where glass containers are collected separate from paper fibres and other containers. In 2016, over 1,560 tonnes of glass containers were collected separately, ensuring the highest quality and value for marketing of the material.

Since the program's inception in 1989, over 434,000 tonnes of recyclables have been collected.

Gulf Islands Depots

Residents in rural areas such as Salt Spring Island and the Southern Gulf Islands, are provided recycling services through drop off programs set up at depots in their communities. The CRD, under agreement with Recycle BC, partners with local non-profit associations for recycling services for PPP at these depots.

2016 ACHIEVEMENTS

LANDFILL TOURS

- 58 school tours
(1,589 participants)
- 6 community tours
(194 participants)
- 13 technical tours

PRESENTATIONS

- 76 school presentations
(1,945 participants)
- 4 community presentations
(69 participants)

INFORMATION DESK

- 2,616 phone calls
- 1,402 emails

In addition to PPP recycling, these depots typically offer recycling services for additional items and in some cases also offer other services such as a free store.

Port Renfrew Transfer Station

Under a Local Service funded by the community of Port Renfrew, residents and businesses have access to a transfer station for drop off of general refuse, kitchen scraps and recycling.

In 2016, the Port Renfrew Transfer Station collected:

- 65 Tonnes of recyclables
- 21 Tonnes of kitchen scraps
- 175 Tonnes of garbage

Hartland Public Drop-off Area

The public drop-off area at Hartland receives garbage, recyclables and household hazardous waste. Over 80 items from 28 product categories are accepted for recycling. This area is intended for residential quantities only for vehicles with a maximum GVW of 5,500 kg.

2016 Recycling Fees:

- \$110/tonne for wood waste, mattresses and asphalt shingles
- \$59/tonne for yard and garden material
- \$6 gate fee for recycling area (residents)
- \$26 gate fee for recycling area (small load commercial)
- No charge for extended producer responsibility products
- No charge for household hazardous waste

Additional charges include a \$10 fee for general refuse deposited in the transfer bin and \$20 for appliances containing refrigerants.

HARTLAND DIVERSION PROGRAMS

	(Tonnes)
Antifreeze	7
Appliances	204
Batteries	36
Books	53
Containers (metal, plastic)	62
Cooking Oil	6
Electronics and Electrical Items	324
Fibres (paper/cardboard)	533
Foam Packaging	15
Fire Extinguishers	2
Food Waste	7,941
Glass (bottles, jars)	24
HHW Orphans	50
Light Bulbs, Tubes, Ballasts	10
Mattresses	458
Metals	846
Motor Oil, Filters, Containers	42
Paint, Solvents, Pesticides	210
Plastic (Bags & Overwrap)	10
Plastic (Large Rigid)	118
Propane Tanks	19
Refundable Containers	9
Reusable Goods	12
Tires	60
Yard & Garden Material	791

TOTAL 2016 RECYCLING **11,842**

Extended Producer Responsibility Programs

British Columbia's industry-led product stewardship programs require producers of designated products to take Extended Producer Responsibility (EPR) for the life-cycle management of their products, including collection and recycling. The BC Recycling Regulation, under authority of the Environmental Management Act, sets out the requirements for product stewardship in BC.

The CRD supports industry-led product stewardship with participation in the following provincial programs:

Beverage Containers (Refundable)

Refundable glass, plastic, aluminum, metal and polycoated beverage containers are accepted at the Hartland recycling facility and Electoral Area recycling depots. Beverage bags and pouches are not included in CRD programs. Refundable beverage containers are also accepted at participating retail stores and private depots.

Electronics, Electrical Products, Batteries and Lighting Products

Since 2014, the CRD has partnered with seven stewardship agencies for the collection of electrical items at the Hartland recycling facility:

- Encorp Pacific (computers, monitors, printers, TVs, audio visual)
- ElectroRecycle (small appliances, power tools, sewing machines, exercise equipment)
- Call2Recycle (batteries and mobile phones)
- LightRecycle (residential fluorescent lamps and CFL bulbs and lighting fixtures)
- Switch the 'Stat (thermostats)
- AlarmRecycle (smoke detectors)
- Outdoor Power Equipment (processed through metal recycler)

Lead-Acid Batteries

Lead-acid batteries have been accepted at the Hartland recycling facility since 1992, shortly after the BC Lead Acid Battery Collection program was introduced. This first generation program transitioned in 2012 to being managed under the BC Recycling Regulation. Batteries are broken down at smelters into lead, plastic and acid.

Paints, Solvents and Flammable Liquids, Gasoline and Pesticides

In 1994, the CRD began working with the Product Care Association (PCA) to provide the region with waste paint collection at the Hartland recycling facility. Since then, the program has expanded to include solvents, flammable liquids, gasoline and pesticides (paint plus) and a paint exchange.

PCA paint depots in the region:

- 1 paint plus with paint exchange (Hartland Recycling)
- 3 paint plus
- 2 paint only with paint exchange
- 5 paint only

Pharmaceuticals

The pharmaceutical EPR, Medications Return Program, is promoted regionally through the CRD Information Line, CRD website and MyRecyclopeda.ca, as well as in CRD Source Control messaging. The CRD works in partnership with the Medications Return Program and the Vancouver Island Health Authority to raise awareness about safe and proper disposal of medications. Through 2016, the CRD continues to have one of the highest medication return rates per capita amongst regional districts in the province.

Packaging and Printed Paper

In 2011, the BC Recycling Regulation was amended to add packaging and printed paper (PPP) from residential generators. The amendment shifted the financial responsibility for managing these materials to producers as of May 2014. PPP materials are managed through a combination of curbside collection and depot drop off which are provided locally by both the CRD and the private sector.

In 2016, a total of 19,779 tonnes of PPP was collected through CRD delivered programs in the region:

- Curbside Blue Box Program – 18,253 tonnes
- Gulf Island Recycling Depots – 896 tonnes
- Hartland Recycling Depot – 610 tonnes
- Port Renfrew Transfer Station – 20 tonnes

Tires

Tires have been accepted at Hartland Recycling since the depot opened in 1992, in conjunction with the province's Financial Incentives to Recycle Scrap Tires ("FIRST") program. In 2007, this provincial initiative was replaced with an EPR program under the BC Recycling Regulation managed by Tire Stewardship BC (TSBC). TSBC, in partnership with the Bicycle Trade Association of Canada and the local biking community, also offer a voluntary program for the recycling of tires and tubes through bike retailers. Collection of bicycle tires and tubes at Hartland began in 2011.

Used Lubricating Oil, Filters and Containers

The BC Used Oil Management Association manages the product stewardship program that provides for the collection and recycling of used oil, oil filters, antifreeze and containers. The program strives to ensure every drop of used oil and antifreeze, every filter and container, is brought to a collection facility to be properly recycled.

Organics Management

Regional Kitchen Scraps Strategy

In January 2015, a landfill ban on kitchen scraps was implemented, saving a valuable resource, conserving landfill space and reducing greenhouse gas emissions.



Kitchen scraps are typically managed in one of two ways: onsite digestion or collection for transportation to a composting facilities in the Cowichan Valley Regional District and on the lower Mainland. Establishment of in-region kitchen scraps processing capacity is being considered as part of integrated resource management.

Compost Facilities Bylaw

The CRD Board adopted the regional composting bylaw in December 2005. The bylaw regulates the operation of composting facilities to protect public health and the environment. In 2016, there were no licensed facilities under the bylaw.

Yard & Garden Material Landfill Restriction

In 2006, a yard and garden material landfill ban came into effect. A number of private facilities in the area accept the region's yard and garden material. In 2016, 791 tonnes of source-separated yard and garden material was received at Hartland where it was ground and used on-site. The landfill ban excludes invasive, infectious and noxious plants which are managed at Hartland as garbage through a reduced rate of \$59/tonne in an effort to reduce their expense.

Household Hazardous Waste

The Hartland Public Drop off area offers residents one stop drop off service for virtually all types of HHW and is a leading program of its kind in British Columbia. The material is accepted in residential quantities only, at no charge, for recycling (where feasible) or disposal at a special waste management facility.



Hartland Gas Utilization Facility

Recovery

Hartland Gas Capture and Utilization

Landfill gas has been captured at Hartland since the late 1990s. In 2012, a site specific Landfill Gas Management Plan (LFGMP) was approved which detailed a strategy for capturing landfill gas and meeting BC Ministry of Environment collection targets. The Plan includes installation, operation and maintenance of collection infrastructure and routine reporting. As a result, landfill gas collection has increased by nearly 40% since 2000 and greenhouse gas emissions have been reduced by approximately 50% since 2010. Collection infrastructure continues to be installed in accordance with the LFGMP. In 2016, the landfill gas collection rate was 61.8% compared to a target of 75%. This collection rate represents an extension of the installation schedule which is attributed to reduced waste volumes in recent years. The current landfill gas collection efficiencies are within estimated ranges in the LFGMP. Target efficiencies are expected to be achieved when full build-out is achieved. Staff are continually investigating other resource recovery opportunities.

A CRD owned generator utilizes captured landfill gas to produce electricity. The generator typically produces enough energy to power 1,100 homes annually.

Residuals Management

The Hartland facility is a multi-purpose site which, in addition to landfill services for general refuse and controlled waste, provides drop off for recycling, compostables and household hazardous waste (HHW).

In 2005, Hartland received the Silver Landfill Management Excellence Award from the Solid Waste Association of North America, as well as awards for leadership and innovation in gas utilization and best practices for household hazardous waste collection. The CRD received four awards in 2010 for its safety initiatives, including the prestigious National Award for Best Safety Week Program in Canada, in which Hartland landfill played a major role.

Landfill Disposal Rates

Landfill tipping fees provide a financial incentive to reduce the quantity of solid waste being brought to the landfill for disposal. The tipping fee structure for 2016 included:

- \$110/tonne for general refuse
- \$157-\$311/tonne for controlled waste
- \$254/tonne for bulky waste

Landfill Material Restrictions

Landfill restrictions have been part of the CRD waste diversion strategy since 1991 and are only implemented when viable and sustainable recycling alternatives exist. Recyclable materials banned from disposal include:

- 1991 - Drywall
- 1993 - Corrugated cardboard, white goods, tires, directories
- 1995 - Scrap metal, aggregate, concrete, asphalt, rubble, clean soil
- 1998 - Paper fibers
- 2006 - Yard and garden waste
- 2011 - Extended producer responsibility materials
- 2015 - Kitchen scraps



Hartland Kitchen Scraps Transfer Station

Bylaw Enforcement

CRD Bylaw 3881, Hartland Landfill Tipping Fee and Regulation Bylaw regulates activities at the Hartland site. CRD Bylaw Enforcement officers, as well as landfill staff, ensure Hartland customers adhere to site regulations. In 2016, 408 enforcement tickets were issued with the majority in relation to deposit of recyclable or prohibited material.

Safety and Landfill Fires

Landfill fires happen periodically at Hartland and are typically the result of improper disposal of items such as batteries and chemicals. In 2016, staff and local emergency services personnel participated in landfill emergency response planning and Incident Command System (ICS) training to facilitate an organized and integrated approach to emergency response across agencies and jurisdictions.

Landfill Capital Works

Since 1985, over \$40 million has been invested in capital works, environmental controls and general site improvements.

In 1997, Phase 1 of the landfill site was closed and the filling of Phase 2 (Heal basin) was initiated. It is expected that Phase 2 will continue to receive landfill materials until about 2049, at which time it will have reached its current design capacity.

Following are achievements for 2016:

- Construction and initial filling of a new landfill cell (Phase 2 Cell 3), including a leachate underdrain, bottom liner, filling plans, gas collection system.
- Annual installation/activation of new gas/leachate collection infrastructure in 175m and 179m landfilling lifts
- Procurement, supervision and direction for heavy equipment services contract
- Aggregate production (quarry) along the northwest side of the landfill
- Replacement of commercial scale deck
- Landfill capacity and aggregate stockpile studies progressed
- Installation of interim cover system for south/east cell 2 slopes
- Seismic upgrades of the Phase 2 toe berm
- Planning and design for a retrofit of the microtunnel chamber to allow for cleaning
- Hydrogeological testing near the North Ridge and north purge well systems.
- Housekeeping updates to the Landfill Design, Operations and Closure Plan and the Regional Source Control Waste Discharge Permit

Site Reclamation

Since the Phase 1 closure, significant efforts have gone towards site rehabilitation. A long-standing vision for Hartland landfill is to restore the land to a condition that will blend in naturally with the surrounding forest. Planting began in 2004 and includes Douglas Fir, Big Leaf Maple and Red Alder, as well as ocean spray, Indian plum and mock orange (all of which are native to the area). Cell 1 Final Closure design was completed in 2010 which included a final cover complete with a new wetland sedimentation pond in addition to gas, leachate and road upgrades. More than 22,000 trees and bushes have been planted over Phase 1 of Hartland landfill. Annual invasive species removal projects are conducted in these reclaimed areas to encourage native plant species.

Leachate Management

Leachate is liquid that is produced from decomposing refuse and includes any precipitation that comes in contact with the refuse. To minimize the leachate generation area, impermeable covers are installed as cover on the landfill and perimeter ditches are lined to divert more clean surface water away from the landfill. The most recent final closure of the North face of Phase 2 Cell 1 was completed in 2011. In 2016, progressive closure of the East and South Faces of Phase 2 Cell 2 was put in place. These closures reduce the total leachate generation area of the landfill.

The newly constructed Phase 2 Cell 3 area included installation of new leachate containment with gravity flow conveyance piping that discharges into the upper leachate lagoon.



Upper Leachate Lagoon

Environmental Monitoring

Hartland landfill employs a number of control measures to prevent or reduce potential effects on groundwater, surface water and air. After over 40 years of engineered controls, groundwater and surface water quality at Hartland Landfill has improved. An environmental monitoring, assessment and management program is conducted in accordance with BC MOE requirements. The monitoring program measures water quality at and near the landfill and assesses the effectiveness of control measures.

Groundwater quality monitoring data obtained in 2016 was similar to previous years and indicated that landfill leachate is effectively contained and controlled on site. Leachate quality monitoring confirmed that leachate discharged from the site was in compliance with CRD's Sewer Use Bylaw, which regulates discharges to the sanitary sewer. Surface water quality has improved in aggregate storage areas following installation of storm water control measures. Surface water monitoring in 2016 indicated that nearby surface water bodies, Tod Creek, Durrance Creek, Durrance Lake, and Killarney Lake are not impacted by leachate.

Landfill gas monitoring confirmed that the landfill gas collection system worked effectively to control emissions from Phase 1. Additionally, new gas wells installed in Phase 2 as part of a long-term gas management plan, resulted in gas infrastructure improvements.

2016 Summary

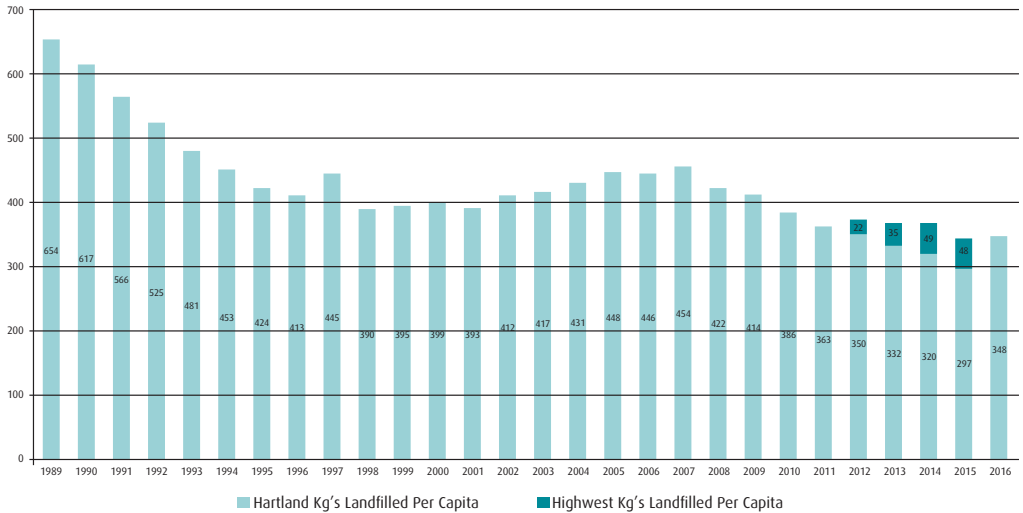
Environmental resource management in the Capital Region consists of a complex and mature materials management system that is constantly evolving. The Environmental Resource Management division uses its mandate to educate, facilitate and regulate to minimize waste and maximize resources. A number of successful programs have been implemented over the years that have resulted in a per capita disposal rate of 348 kg.

Total Refuse by Type (tonnes)

Type of Waste Declared	2015	2016	% Change
General Refuse	112,442	134,167	19%
Controlled Waste			
Miscellaneous	735	2,647	260%
Liquid Waste	698	947	36%
Asbestos	3,441	2,875	-16%
Screenings	6,065	6,068	0%
Sub-Total	10,939	12,537	15%
Total	123,381	146,704	19%

- Miscellaneous includes food processing, surface coating and health hazard wastes, fibre optic cable, spoiled food, animal feces, dead animals, contaminated drywall, soot and contaminated soil
- Liquid waste includes pumpings from catch basins, car wash sumps and other sumps containing non-hazardous waste
- Asbestos also includes material from outside of the region

CRD Per Capita Disposal Rate



CRD Per Capita Disposal Rate

In 2012, the Province of British Columbia began using per capita disposal rates as the standard solid waste metric and is targeting 350 kg/capita by 2020. Based on the Ministry of Environment's new calculation method, the CRD's disposal rate for 2016 was 348 kg/capita.

Year	Population ¹	Hartland landfill			Tervita Highest Landfill ²	Disposal Rate (kg/person)
		Received	Beneficial Use	Landfilled		
2012	368,935	129,279	n/a	129,279	7,880	372
2013	371,265	123,210	n/a	123,210	13,025	367
2014	372,463	120,942	-1,636	119,306	18,000	369
2015	377,810	114,476	-2,034	112,442	18,000	345
2016	382,645	134,167	-971	133,196	0	348

¹ BC Stats

² 80% of facility's total disposal in recognition of out-of-region waste being landfilled at site

Financial Management

A sustainable financial business model is essential for the provision of solid waste services. In the CRD, the majority of funding has traditionally been drawn from landfill tipping fees, with a new significant funding source from EPR programs being added in 2014. This form of financing has practical limits as diversion increases and landfill volumes decline. Long-term financial sustainability of the CRD solid waste function will form a critical part of the new Solid Waste Management Plan.

Revenues	
Tipping Fees	\$17,145,726
EPR Programs	\$5,883,654
Power Plant	\$369,840
Recycling Program Revenues	\$1,161,092
Permits, Fines & Misc	\$127,534
TOTAL	\$24,687,846
Costs	
Recycling Collection Programs	\$6,110,331
Landfill Operations	\$4,874,202
Hartland Diversion Programs	\$2,956,421
Capital Spending	\$2,630,772
Power Plant Costs	\$1,103,658
Debt Charges	\$645,955
Closure & Post-Closure Fund	\$447,286
Equipment & Vehicle Fund	\$302,864
Planning	\$205,952
Community Support Programs	\$209,105
TOTAL	\$19,486,546
Surplus	\$5,201,300



Making a difference...together

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