



RECYCLING AND WASTE MANAGEMENT 2021 ANNUAL REPORT

COWICHAN VALLEY REGIONAL DISTRICT





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Message From The Chairperson & CAO



On behalf of the CVRD Board of Directors and staff, we are proud to present the 2021 Solid Waste Management Plan Annual Report.

As a region, the last decade has seen significant growth in population and the accompanying demand for services, particularly in our Electoral Areas. While the Cowichan region was one of the lowest producers of garbage per-household in the province in 2019, we have unfortunately seen a 9% growth in annual garbage volume at our Recycling Centres over the last three years. Simply stated, we are currently moving in the wrong direction to achieve our 2028 waste goals.

We have, however, begun to take steps to get back on the right track in 2022, including early engagement

with residents on the design and implementation of three-stream curbside collection service for our Electoral Areas. The introduction of organics collection to all residents represents the single largest opportunity for us to reduce the volume of garbage we currently send off-Island to a landfill in Washington State.

As we move forward with this and other strategies over the coming year, we hope to continue engaging with our communities to better understand their needs and how we can work together to minimize the amount of waste we produce and manage it as efficiently and responsibly as possible.

Thank you for your support in improving the delivery of solid waste services.

A handwritten signature in black ink, reading "Lori Iannidinardo".

Lori Iannidinardo, Chairperson

A handwritten signature in black ink, reading "Brian Carruthers".

Brian Carruthers, CAO



Regional Waste Management, History, Highlights

Regional Waste Management

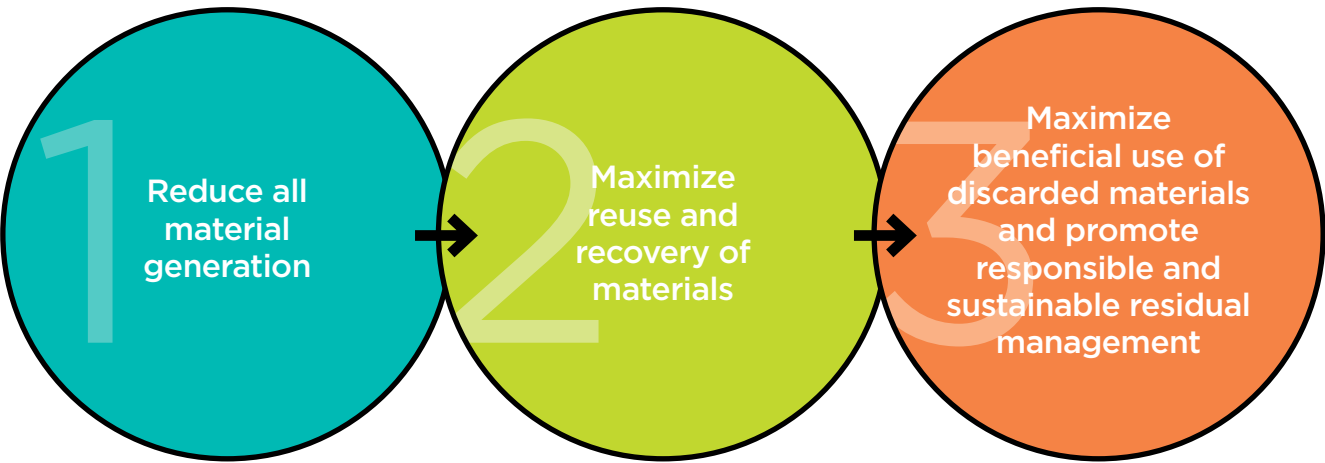
The Cowichan Valley Regional District (CVRD) Recycling and Waste Management Division (RWMD) is responsible for waste management throughout the CVRD, and works in partnership with member municipalities of the Town of Ladysmith (Ladysmith), City of Duncan (Duncan), Town of Lake Cowichan (Lake Cowichan), and District Municipality of North Cowichan (North Cowichan) to provide these services. Waste management services include Recycling Centre operations, waste hauling, waste diversion education, Extended Producer Responsibility (EPR) program management, private waste collection facility licensing, wildlife conflict reduction programs, community outreach, and waste tracking.

The CVRD currently provides curbside recycling collection services to single family dwellings in the CVRD; strata

complexes, apartment buildings and multi-family dwellings over 4 units are not included in the curbside collection program. Curbside garbage collection services are provided to single family dwellings in Areas D, E, F, G, and I; households in Areas A, B, C, and H have no mandatory garbage collection service but residents in these Areas may be able to access a private hauler to subscribe to a garbage and/or organics collection service. Ladysmith, Duncan, Lake Cowichan, and North Cowichan provide curbside collection services to their own residents. The Industrial, Commercial, and Institutional (ICI) sector is responsible for arranging private waste hauling. The CVRD does not have a local landfill; all material that is not recovered in the recycling process or other waste diversion processes is shipped more than 700 km to a landfill in Washington State.



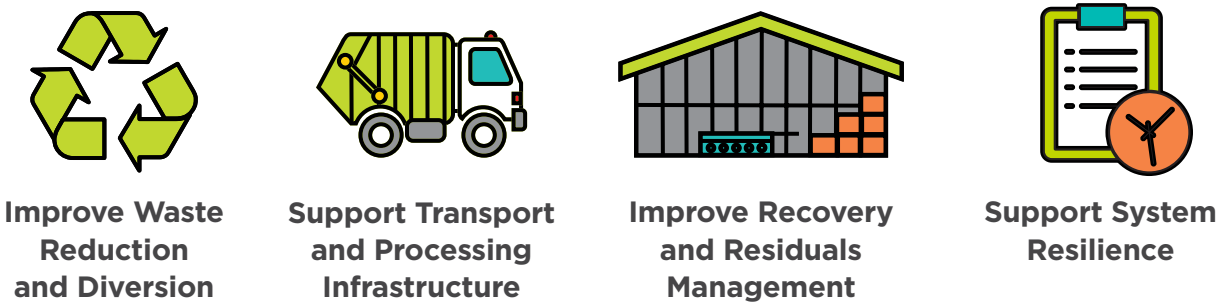
The CVRD has three recycling and waste management goals:



The *Environmental Management Act* mandates that regional districts develop plans for the management of municipal solid waste and recyclable materials. The CVRD’s Solid Waste Management Plan (SWMP) was last updated in 2018; the plan guides the solid waste management activities and policy development in the CVRD for 10 years.

By reducing the amount of waste sent to landfill from 358 kg/person/year (2017) to 250 kg/person/year (2028 goal), and further to 150 kg per person/year (2040 goal), we will get closer to Zero Waste.

The SWMP sets out four key working topics to help us increase diversion:



As of 2021, more than **48%** of the material sent to the landfill is compostable or recyclable.

What Does Zero Waste Mean?

Zero Waste means moving toward a circular economy, meaning that “waste” is viewed as a resource, and maximum value is extracted from all waste before it is eventually recovered or repurposed.

The CVRD has adopted the 5R pollution prevention hierarchy – Reduce, Reuse, Recycle, Recovery, and Residuals Management, to help prioritize strategies and encourage the behavioural change needed to achieve the Zero Waste goal.



REDUCE

Reduce by as much as possible the amount or toxicity of material that enters the solid waste stream and also the impact on the environment of producing it in the first place.



REUSE

Ensure that materials or products are reused as many times as possible before entering the solid waste stream.



RECYCLE

Recycle as much material as possible.



RECOVERY

Recover as much material and/or energy from the solid waste stream as possible through the application of technology.



RESIDUALS MANAGEMENT

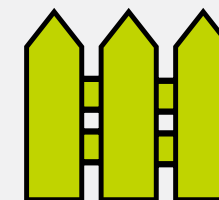
Provide safe and effective residual management, once the solid waste stream has been reduced through the application of technology.

2021 Highlights



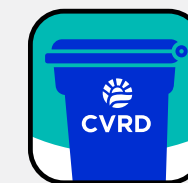
Complete overhaul of the Recycling and Waste Management webpages

resulted in a more comprehensive and user-friendly layout



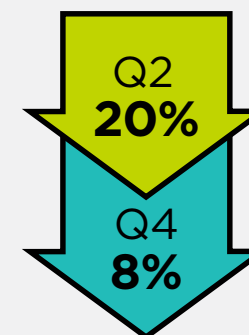
Implementation of painted wood waste diversion program

to reduce the volume of this material going to landfill



Complete overhaul of the Cowichan Recycles app

resulted in a more user-friendly search feature



Reduction of curbside recycling contamination



Creation of five curbside recycling focused videos

answered common curbside questions, supporting the reduction of curbside recycling contamination

\$68,045

generated and donated to 12 local charities

through beverage container donations from CVRD Recycling Centre drop boxes



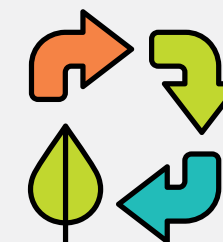
Engagement with the School District

stimulated support to run programs



School tours of the Recycling Centre

engaged youth and increased understanding of waste management



Support of 18 local organizations

who voluntarily collected 53,108kg of illegally dumped waste. This local effort contributed to the protection of wildlife, water, and soil

Recycling Regulation and Extended Producer Responsibility

The Province of BC has been regulating the recycling of packaging and products through the Recycling Regulation since 2004. Provincewide recycling programs, where manufacturers take responsibility for the full cost of products from selection of materials to design of the product and management of the end of life, called Extended Producer Responsibility (EPR), have resulted in BC regulating the most packaging and products throughout Canada¹. EPR programs shift the responsibility from local governments and taxpayers to the producers and consumers of those products.

The CVRD and member municipalities work with a variety of EPR programs to collect and divert recyclable materials from the landfill, as shown in Table 1.

Table 1 Current EPR programs (2021)

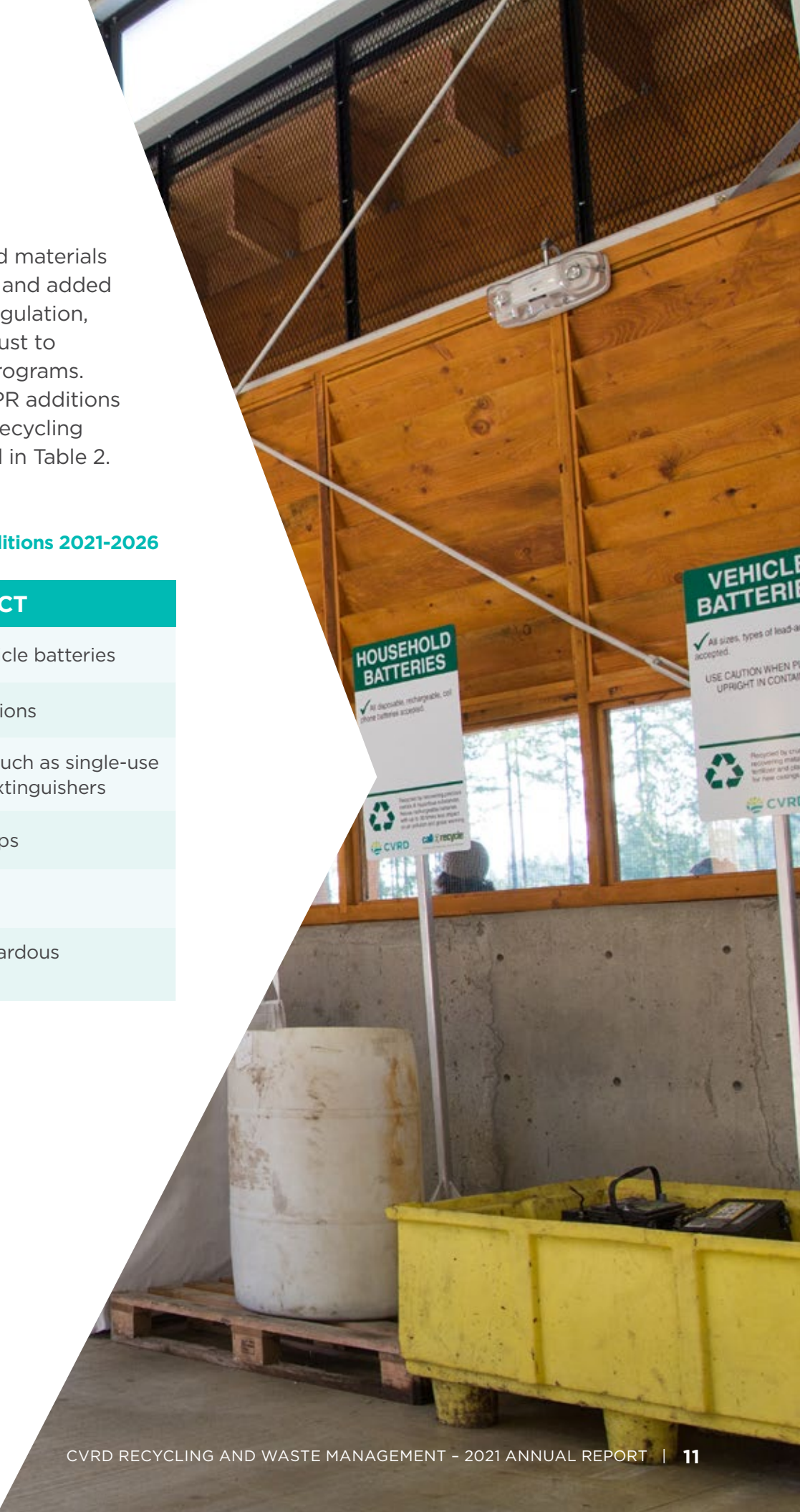
PRODUCT
Used oil and oil containers, antifreeze and antifreeze containers
Consumer and industrial lead-acid batteries
Batteries
Electronics
Small and major household appliances
Non-alcohol beverage containers, Refillable glass beer and cider bottles, metal beverage alcohol cans, and secondary packaging
Prescription and non-prescription drugs
Printed paper and household packaging
Electric outdoor power equipment
Lightbulbs, smoke alarms, paint and paint products
Cellphones and accessories, cell phone batteries, wireless PDAs, pagers
Thermostats
Scrap tires

New EPR programs and materials are regularly approved and added to the BC Recycling Regulation, and CVRD facilities adjust to accommodate those programs. Expected upcoming EPR additions in 2021 – 2026 to the Recycling Regulation are outlined in Table 2.

Table 2 EPR program additions 2021-2026

PRODUCT
Hybrid and electric vehicle batteries
Mattresses and foundations
Compressed canisters such as single-use camping fuel and fire extinguishers
Home use medical sharps
Emerging electronics
Expanding existing hazardous product categories

¹www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/extended_producer_five_year_action_plan.pdf



Programs and Services

The CVRD has been providing waste management services to residents since approximately 1973, when the district took over the Koksilah Landfill from the City of Duncan. Since that time, services have grown to include a curbside collection program for more than 12,000 households, three full service Recycling Centres, and a comprehensive waste management education program.

These programs are made possible by the RWMD team, which is made up of 37 staff who operate three Recycling Centres and a fleet of 16 vehicles, organize communications, attend public events, bring new initiatives forward to the Board of Directors, and implement initiatives. The programs provided by the RWMD team have allowed the CVRD to deliver an extensive range of waste management services across the district, meeting the changing needs of the growing community.

 12,000+ Customers

Curbside Collection Program

The curbside program collects household garbage and household paper & packaging recycling materials from single family households in the CVRD. Garbage and recycling is collected via an automated collection vehicle, where a mechanical arm extends from the truck to pick up and tip collection totes. The CVRD provides collection totes to all applicable households; totes are equipped with RFID chips and serial numbers, and are assigned by address.

Curbside recycling collection is provided to all single-family residences in the CVRD. Garbage is collected curbside by the CVRD in Areas D, E, F, G, and I; households in Areas A, B, C, and H have no mandatory garbage collection service but residents in these Areas may be able to access a private hauler to subscribe to a garbage collection service.

3 Automated Trucks



Receptacles Provided

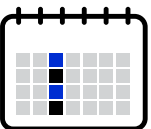


Garbage Tote
(140L, 240L, 360L)



Recycling tote
(240L, 360L)

Collection Frequency



Recycling - Biweekly

Garbage - Biweekly




















(except for Areas F and I which have weekly garbage pickup between June 15 - October 15)

Recycling Centres

The CVRD operates three Recycling Centres: the Meade Creek Recycling Centre provides garbage and recycling material drop off services for residents in the Cowichan Lake and Youbou areas; the Peerless Road Recycling Centre provides garbage and recycling material drop off services for residents in the Ladysmith and Chemainus areas, and the Bings Creek Recycling Centre provides garbage and recycling drop off facilities for residents in the Duncan area. All Recycling Centres have a scale house, vehicle access lock block constructed bin areas, and designated EPR material collection areas.



Materials accepted free of charge at all Recycling Centres:

-  Used Motor Oil, Oil Containers, Oil Filters, Antifreeze, and Antifreeze Containers
-  Household Pesticides, Paint, Solvents, Gasoline
-  Household and Vehicle Batteries
-  Lighting and Light Bulbs
-  Electronics
-  Large Appliances
-  Household Organics (up to 18L)
-  Plastic Bags and Plastic Wrap
-  Refundable Beverage Containers
-  Cooking Oil
-  Glass Jars and Bottles
-  Yard Waste
-  Small Appliances and Power Tools
-  Scrap Metal
-  Paper and Cardboard
-  Propane Tanks and Canisters
-  Smoke and Carbon Monoxide Alarms
-  Tires (first 4 tires are free)
-  Foam Packaging

Some material is collected for a fee. Fees are charged for materials that must be shipped and managed, and which are not covered by a provincial program.



Garbage



Lumber and Wood



Painted and Treated Wood
(Bings Creek only)



Rubble



Couches and Armchairs



Mattresses



Roofing

The Bings Creek Recycling Centre (Bings Creek) on Drinkwater Road is the hub for garbage and recycling activities in the CVRD. In addition to the facilities mentioned above, Bings Creek also has an administrative office and garbage, recycling and compost consolidation buildings.

Garbage and recycling materials collected curbside are transported to the Bings Creek transfer building where they are tipped and loaded into tractor trailers and hauled to GFL Environmental in Chemainus (recycling) or to the Robanco Landfill (garbage) in Washington State.

Performance

In 2021, the CVRD collected 90,133 tonnes of garbage, compostable material, and recyclable material from residents in the region. This total represents a 17% (13 214.58 tonne) increase of material over material disposed of in 2020. There

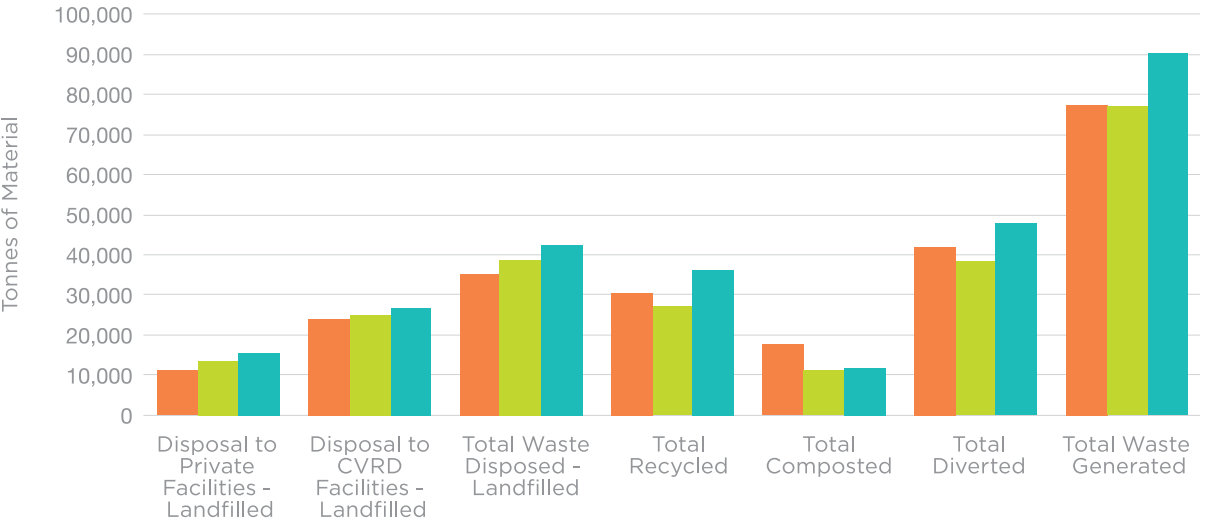
is potential that the increase in waste generation in 2021 may be attributed to sustained changes in household lifestyles during the pandemic as well as recovery efforts related to flood and fire emergencies.

Table 3 and Figure 1 illustrate the change in disposal vs diverted levels in the CVRD over the past three years.

Table 3

Year	Pop.	Total Waste Landfilled (tonnes)	Total Recycled (tonnes)	Total Composted (tonnes)	Total Diverted (tonnes)	Total Waste Generated (tonnes)	Disposal Rate (kg/person)	Diversion Rate
2019	90488	35272.92	30482.33	17647.89	42004.22	77277.14	389.81	54
2020	90776	38657.64	27181.07	11080.64	38261.71	76919.35	425.86	50
2021	91200	42270.54	36140.88	11722.51	47863.39	90133.93	463.49	53
Change 2020/2021		9.35%	32.96%	5.79%	25.09%	17.18%	8.84%	6.75%

Figure 1: 2019-2021 Diversion Rates



This infographic presents the change in waste disposal categories over the last three years. While diversion rates fell to less than 50% in 2020, an increase in recycling volumes increased in 2021, bringing the CVRD back on track to 53%, almost to 2019 levels (54%).

The CVRD is committed to reducing the current disposal rate (463.5 kg/person/capita) to 250 kg/person/capita by 2028 by continuing to provide, and continuously increase, efficient and sustainable waste management services.

Curbside Recycling Diversion

3691 tonnes of recycling were collected curbside in 2021, which is consistent with tonnages collected in 2020 (3680 tonnes) but down from 2019 (4515 tonnes).

Recycling Centre Diversion

8708 tonnes of material were diverted from the landfill in 2021 through CVRD Recycling Centre EPR programs, up from 7710 tonnes in 2020.

2019 – 2021 Tonnage of EPR materials collected for recycling at CVRD Recycling Centres

PRODUCT	2019	2020	2021
Beverage Containers	2,335.96	2,348.86	2,325.13
Electronics	351.40	290.15	263.38
Lead Acid Batteries	376.14	405.36	420.88
Major Appliances	785.19	365.38	227.38
Metal	1,147.03	1,331.33	2,634.72
Paint & Household Hazardous Waste	172.07	193.51	198.40
Tires	1,452.29	1,656.19	1,568.58
Used Oil & Antifreeze	861.18	955.93	904.94
Small Appliances	76.14	102.44	109.55
Alarms	6.10	11.94	12.20
Batteries	11.90	14.62	9.38
Electrical Outdoor Power Equipment		4.26	6.79
Lighting Equipment	5.62	8.73	9.28
Propane Tanks	18.17	19.42	15.75
Thermostats		0.02	0.02
Medications	1.98	2.16	2.19
All values in tonnes	7601.17	7710.30	8708.57

Environmental Monitoring

The Ministry of Environment and Climate Change (ENV) requires that former landfill sites undergo scheduled monitoring to assess potential environmental impacts. The CVRD monitors and collects samples from the former incinerator sites at Meade Creek and Peerless Road, and also at the former landfill on Koksilah Road near the City of Duncan. Results and reporting are submitted to ENV on an annual basis.

Financial Management

Regional Solid Waste Financial Management

The role of the solid waste management budget is to fund waste management services for the region. This includes operation of three regional Recycling Centres, waste export, management of recycling and public education programs, and capital projects. Expenditure categories include solid waste reduction (policies and programs, regulations, outreach, and education), operations (Recycling Centres, waste export, staffing, fuel and maintenance, recycling programs etc.), and capital (equipment replacement). Solid waste management activities are funded primarily through tipping fees, revenues obtained from the collection or sale of recyclable materials, and requisition. Large capital expenditures are primarily funded through gas tax, reserve funds, or borrowing.

2021 Solid Waste Management Service

Revenues	2021
Garbage Tipping Fees incl Reserve	\$ 4,243,560
Recycling Revenues (Non-EPR Items)	852,717
EPR Program Revenues (Including RecycleBC)	281,089
Requisition	6,240,163
Vehicle Dispositions	1,480
Grants	31,263
Misc	36,327
Licenses	2,100
Rental Income	6,827
Facilities Allocations	81,211
2020 Surplus (Deficit)	140,000
Total	\$ 11,916,737
Costs	2021
Solid Waste Reduction Program	\$ 136,179
Recycling Centre Operations	6,860,368
Recycling Processing	1,233,386
Waste Export	1,464,729
Roll-off Hauling Service	382,056
Debt Payments	254,824
Environmental Monitoring	25,891
Transfer to Remediation Reserve	48,000
Total	\$ 10,405,433
Surplus (Deficit)	\$ 1,511,304

Curbside Collection Financial Management

The role of the curbside collection function is to provide bi-weekly recycling pick-up to all nine CVRD Electoral Areas and garbage pick-up to five Electoral Areas. The remaining four Electoral Areas can subscribe to services directly by private contractors for garbage collection. The CVRD does not offer curbside organics collection at this time. The program is funded through user fees (utility bills are sent to customers annually).

The CVRD operates the recycling portion of the curbside collection program in partnership with RecycleBC, a Vancouver-based non-profit organization which manages household paper and packaging recycling in BC. As part of the partnership, the CVRD received \$35.40 per household in 2021, for a total of \$485, 944, to offset the cost of providing curbside recycling collection and to help fund community education and administration of the program.

Revenues	2021
User Charges	\$ 1,257,578
EPR Program Revenue (RecycleBC)	485,944
Ticket Sales & Miscellaneous	3,731
Surplus/Deficit (Previous Year)	0
Total	\$ 1,747,253
Costs	2021
Program Operation	\$ 1,451,717
Debt Payments	\$141,933
Capital Spending	\$18,124
Transfer to Capital Reserve	\$100,000
Total	\$ 1,711,774
Surplus (Deficit)	\$ 35,479



Public Outreach and Education

Cowichan Recycles Mobile App

Residents who are part of the CVRD curbside collection program can receive curbside information and collection reminders directly to their phone or email through the Cowichan Recycles app. The app allows users to access their curbside collection calendar, set up collection day reminders, and receive collection delay notices. The app also provides a comprehensive, user-friendly Recyclopedia which residents can use to identify whether a particular material belongs in curbside recycling, garbage, or if it is accepted for recycling at the Recycling Centre.

The mobile app was introduced in the CVRD in 2018, and is available on Apple and Android platforms. Users can also access collection information and perform material searches through the app on the CVRD Recycling & Waste Management webpages.



Web Pages

Residents looking for information about garbage and recycling programs in the CVRD can visit our webpages for details. Topics covered in the easy-to-use layout include:

Recycling Centre Information

www.cvrld.ca/2966/Recycling-Centre-Locations-Hours-Accepte

Curbside Collection Overview

www.cvrld.ca/3393/Curbside-Collection-Overview

Recycling

www.cvrld.ca/3381/Recycling

Garbage

www.cvrld.ca/2473/Garbage

Illegal Dumping

www.cvrld.ca/2976/Illegal-Dumping

Burning and Air Quality

www.cvrld.ca/1469/Burning-Air-Quality

Solid Waste Management Plan

www.cvrld.ca/2979/Solid-Waste-Management-Plan

Residents may also access department contact information, licenced facility odour and noise concern reporting links, and the Cowichan Recyclopedia recycling search wizard.

Curbside Recycling

RecycleBC is responsible for residential packaging and paper recycling in BC, and is the CVRD’s partner for curbside recycling collection. As part of the partnership with RecycleBC, the CVRD is committed to ensuring that no more than 3% by weight of material collected in the program are materials not accepted in the program (this is called contamination); exceedances of 3% contamination may be subject to a fine to the CVRD. RecycleBC has reached out to the CVRD on several occasions regarding unacceptable levels of curbside contamination, and did so again in 2021. In May 2021, the CVRD launched the Contamination Reduction Program (CRP) to reduce contamination rates from approximately 15% to a goal of 8% in May 2022.

- The 2021 Contamination Reduction Program consisted of the following aspects:
- Provide informational tote decals to each residence in the CVRD
 - Generate contamination notices for each residence where contamination is identified
 - Curbside recycling tote audits
 - Route audits
 - Website improvements
 - App updates and improvements
 - Social media communications

The 2021 CRP ran from May to December and will continue into 2022. Contamination rates as identified by RecycleBC dropped during the 2021 time period from approximately 20% in Q2 to 8% in Q4.

Social Media

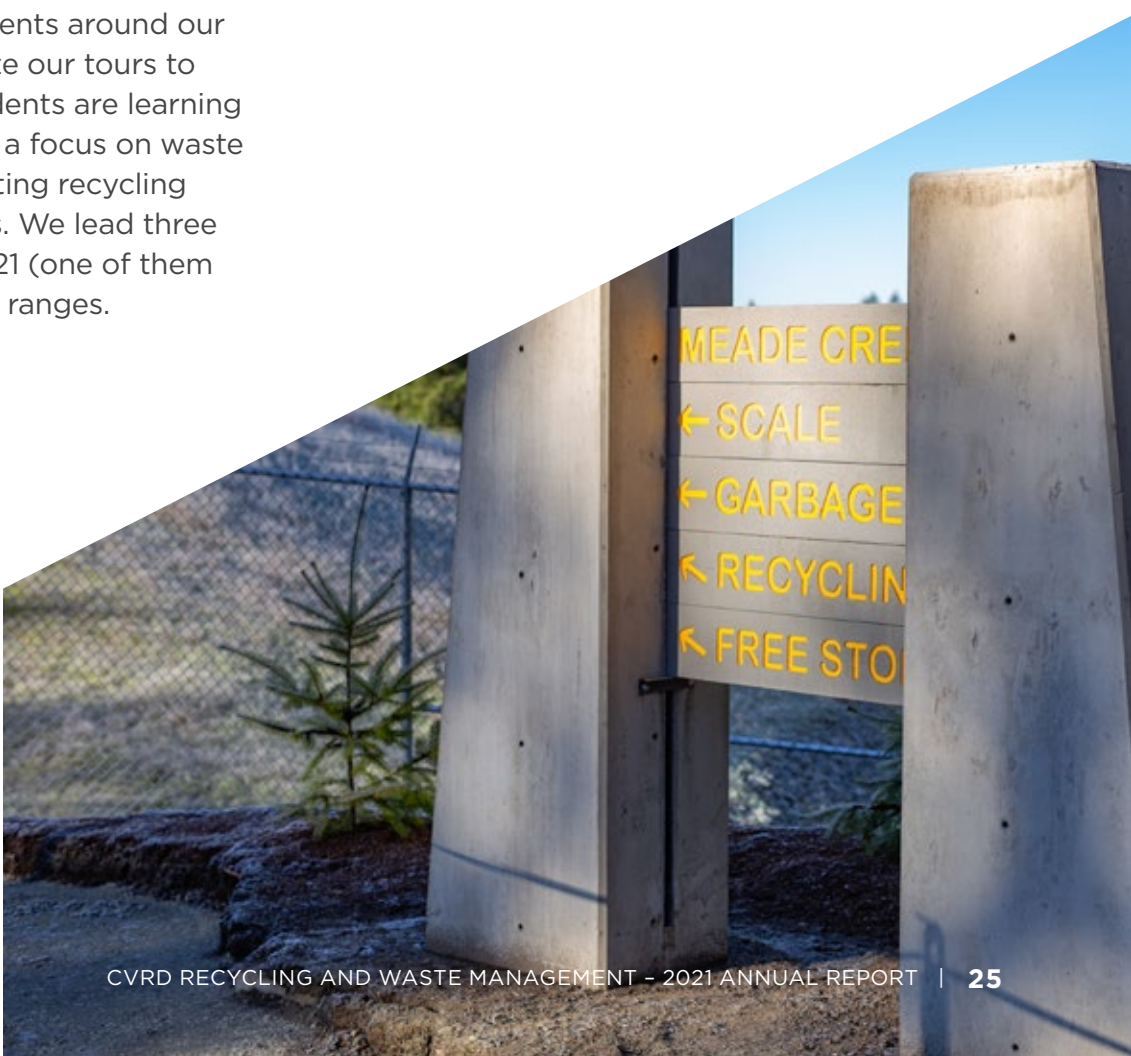
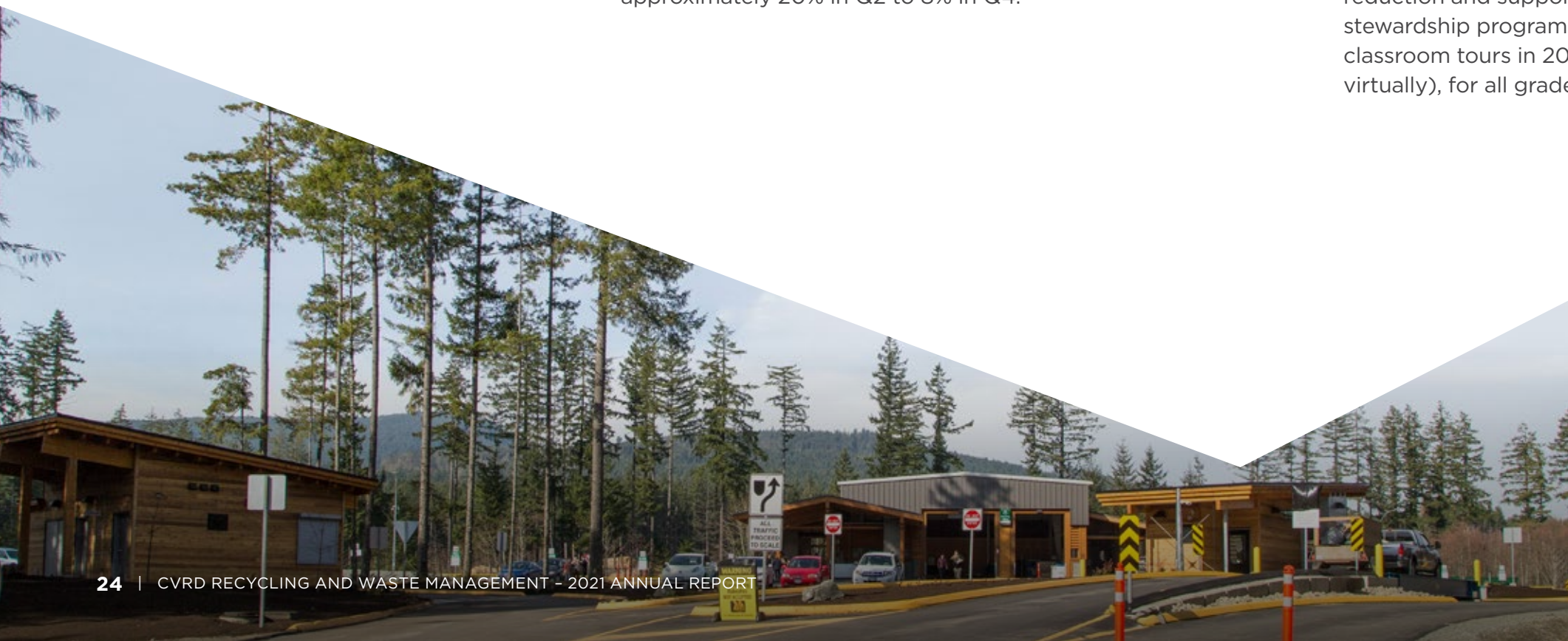
In 2021, staff connected with thousands of residents through social media to provide waste management and reduction information and strategies. Communications included seasonal waste reduction tips, wildlife awareness relating to waste management at home, Recycling Centre information, and food waste reduction strategies. Staff reached out to residents through web and social media to communicate curbside collection delays or cancellations due to weather events.

Tours

We love showing students around our facilities! We customize our tours to supplement what students are learning in the classroom, with a focus on waste reduction and supporting recycling stewardship programs. We lead three classroom tours in 2021 (one of them virtually), for all grade ranges.

Community Cleanups, Tipping Fee Exemptions

The CVRD supports community organizations that volunteer to clean up litter and illegal dumpsites by waiving up to \$1000 in tipping fees for waste disposal at CVRD Recycling Centres. Community organizations can also be reimbursed up to \$500 in community clean-up funds for the cost of supplies incurred during the clean-up project. In 2021, the CVRD waived the tipping fees for 53,108 kg of waste collected by 18 organizations.



Looking ahead to 2022

Moving Toward Zero Waste!

Over 30% of our regional garbage contains material that could have been composted instead of landfilled. To eventually ban organics from entering the landfill, all residents need convenient access to organics disposal alternatives. Removing organics from the garbage will bring the Cowichan Valley one step closer to the ultimate Solid Waste Management Plan goal of Zero Waste.

Starting in May 2022, the CVRD will invite regional residents, business owners, community groups, and those who have an interest in three-stream curbside collection, to participate in an inclusive engagement process on a three-stream curbside collection service. Three-stream (organics, recycling, and garbage) curbside collection will provide eligible residents with access to more disposal options at home. The goal of this engagement is to listen and learn from the community about their ideas, priorities, concerns, and preferences when it comes to implementing three-stream curbside collection in the Electoral Areas to meet the Solid Waste Management Plan goals.

Three-stream curbside collection is being implemented across British Columbia as the benefits are many, and for the Cowichan Valley these include:

- A reduction in the amount of landfilled material, reducing greenhouse gas emissions and garbage export costs;
- Potential for more business opportunities for local waste collection and processing businesses;
- Increased local employment opportunities for residents in private or public waste management organizations;
- Reuse of resources to support a circular economy, such as turning compostable material into a resource that can be used by residents and businesses locally
- Improved air quality and lower asthma rates and other respiratory illnesses, as the need to dispose of yard waste through backyard burning is reduced, if yard waste is added to the organics service;
- Enhanced local climate resiliency with less garbage export, reducing regional vulnerability to rail and road closures;
- More taxpayer's dollars spent locally instead of on garbage export costs; and,
- Future-proofing Electoral Areas as population and residential expectation to access modern and convenient waste disposal options grow.

How do I get connected?

The CVRD offers several learning tools for residents to use to get engaged and stay connected.

You can visit the **CVRD website** to learn more about garbage and recycling and get great tips on how to lower curbside contamination.
www.cvrld.ca/78/Garbage-Recycling

Download the **Cowichan Recycles mobile app** to access your collection schedule, and get reminders sent directly to your phone.

Learn how to dispose of items using the Cowichan Recyclopedia!
www.cvrld.ca/2584/Recyclopedia

Or watch a video to learn what should not go into your curbside recycling tote and what is considered contamination.
www.youtube.com/watch?v=rm9wjm9sFXo

 The Cowichan Valley Regional District is on Facebook!
Like and follow us for news and updates.

Explore information about food waste reduction and the reFRESH Cowichan food recovery program on the CVRD food waste webpage.
www.cvrld.ca/3428/Food-Waste

Contact the CVRD Recycling Hotline if you have questions or concerns.
250.746.2540 or 1.800.665.3955 or email curbside@cvrd.bc.ca



CVRD Recycling and Waste Management
250.746.2540 | 1.800.665.3955
curbside@cvr.bc.ca

