

Regional District of North Okanagan



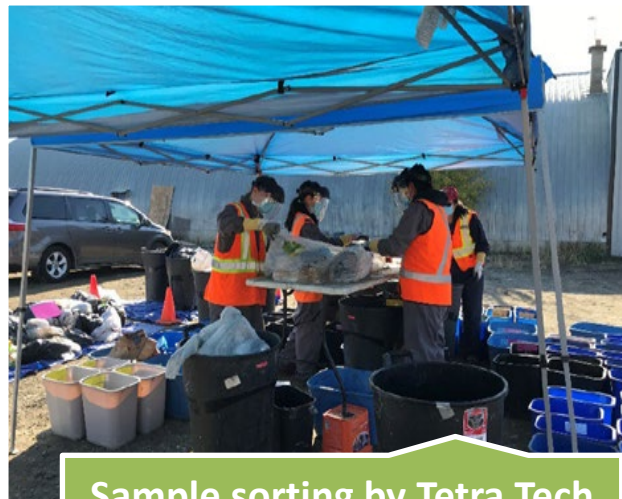
2021 SOLID WASTE QUANTITIES REPORT

Annual Summary of Diversion, Disposal and Solid Waste Management
Plan Progress

Highlights



RDNO-Gro Compost loading area at Greater Vernon Diversion & Disposal Facility



Sample sorting by Tetra Tech Staff during Fall 2021 Waste Characterization Study



ReTHINK Waste Grant Recipient: Crafting a Change



Propane Tank Adapter Hose Rebate Program

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SUMMARY

This report summarizes the waste management results and activities undertaken by Regional District of North Okanagan (RDNO) in 2021 and is intended to assist with solid waste management planning.

SOLID WASTE MANAGEMENT TRENDS

The following are the 2021 regional diversion and disposal trends compared to 2020:

- The amount of material weighed over RDNO Diversion and Disposal Facilities (DDF) scales increased by 5% to 73,043 tonnes;
- The amount of material collected, processed and marketed (recycled) or utilized onsite at DDFs increased by 5% to 51,927 tonnes;
- The population growth was estimated to have increased by 1% to 93,425 based on BC Stats; and
- The per capita disposal rate increased by 7% from 499 kilograms/capita/year (kg/c/y) to 533 kg/c/y and is now 183 kg/c/y above the current Solid Waste Management Plan target of 350 kg/c/y.

Detailed reports by RDNO jurisdiction and sector can be found in APPENDIX A.

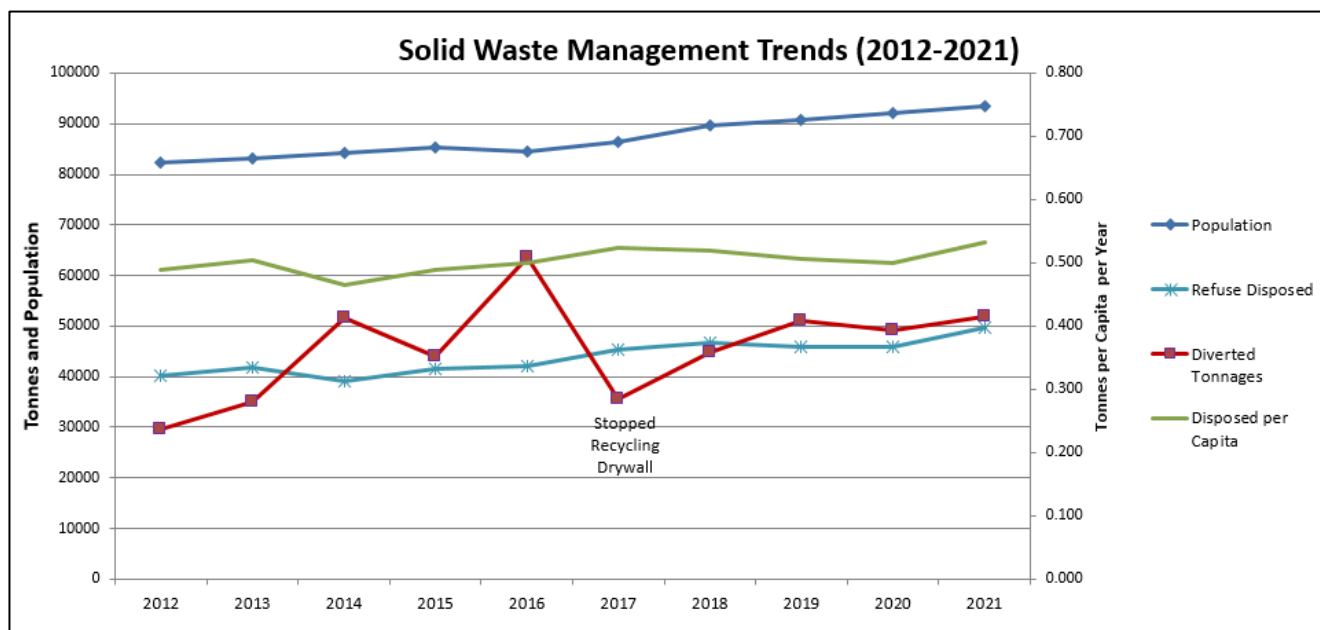


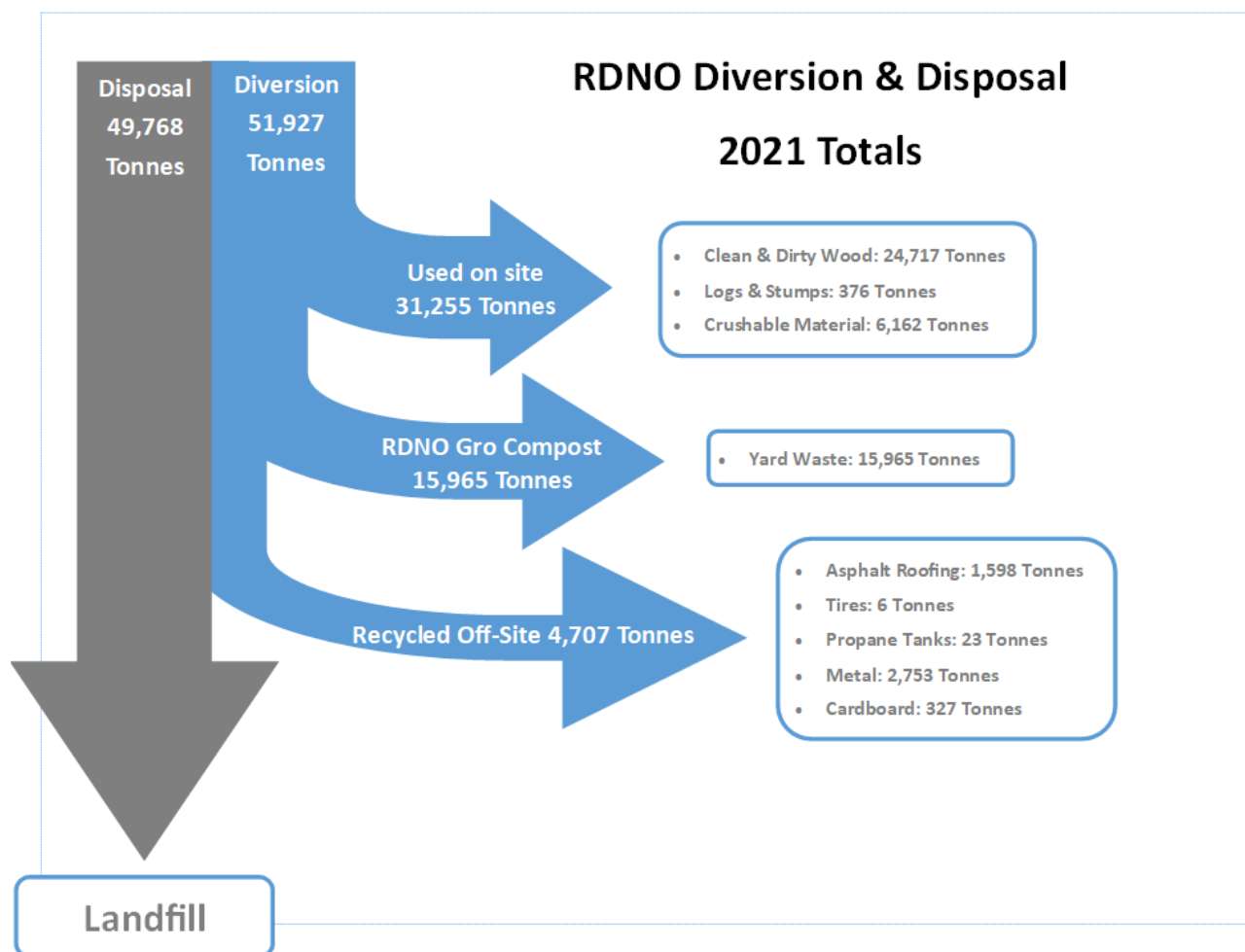
Figure 1: Last Ten Years of Diverted and Disposed Waste Quantities

The increase for 2021 for Refuse Disposed per Capita may be attributed to changes in activity resulting from COVID-19. For instance, an increase in household and garage cleanups, as well as online shopping activity were well known occurrences during the pandemic. There has been a notable increase in construction activity in the region and this is supported by the fact that in 2021 there was a 49% increase in mixed Construction & Demolition tonnage compared to 2020. Similar increases in per capita disposal rates were also observed in other regional districts in BC.

Some variation can occur, year to year, in the amount of diverted tonnages because of the timing that stockpiles are collected or processed. Adjustments have been made to better represent materials collected for 2021. This includes adding quantities of material determined to be collected and stockpiled from 2021 and processed or collected in early 2022 as follows: Wood (6,571 tonnes), Yard and Garden Waste (3,453 tonnes) Logs and Stumps (154 tonnes) and Tires (4 tonnes). Tonnage for Wood, Yard and Garden Waste, and Logs and Stumps is determined by using a conversion factor once the material is grinded. Roofing and scrap metal leave the sites on a frequent basis.

DIVERSION OF MATERIALS THROUGH RDNO PROGRAMS

Over ½ of materials brought to RDNO DDFs are diverted from landfill and either utilized onsite, used to produce compost or shipped off site to recycling markets. For instance, wood waste is ground up and used for cover, odor mitigation and improvement of finished slopes, whereas concrete and asphalt are used for roads and tipping pads onsite. Utilizing readily available materials reduces the need to purchase and transport additional materials for maintaining sites. Meanwhile, Yard & Garden Waste make up over 30% of materials diverted and is used to produce RDNO-Gro Compost. Residents can access this compost for free to benefit their gardens as it helps improve soil moisture and nutrient holding capacity and is an effective surface mulch that controls weeds and protects plant roots from extreme temperatures. Shipping materials off site for processing in recycling markets such as with scrap metal is a source of revenue for the RDNO.



Diversion at the RDNO DDFs and the Household Hazardous Waste (HHW) Program is summarized in the following table:

Materials Diverted from Disposal at DDFs

| Material | 2019 | 2020 | 2021 |
|--|---------------------------|---------------------------|--------------------------------------|
| Asphalt Roofing | 1,011 tonnes | 1,239 tonnes | 1,598 tonnes |
| Cardboard | 307 tonnes | 318 tonnes | 327 tonnes |
| Crushable Material (e.g. concrete) | 9,588 tonnes | 5,092 tonnes | 6,162 tonnes |
| Mattresses & Boxsprings | 5,887 units | 7,692 units | 11,345 units |
| Metal (Scrap) | 2,450 tonnes | 3,571 tonnes | 2,753 tonnes |
| Propane Tanks | 13 tonnes | 20 tonnes | 23 tonnes |
| Refrigeration Units (Decommissioned) | 3,387 units | 4,037 units | 4,308 units |
| Tires | 5 tonnes | 6 tonnes | 6 tonnes |
| Wood (Clean and Dirty) | 24,137 tonnes | 22,073 tonnes | 24,717 tonnes |
| Yard and Garden Waste | 12,227 tonnes | 15,817 tonnes | 15,965 tonnes |
| Logs and Stumps | 1,633 tonnes | 1,455 tonnes | 376 tonnes |
| Household Hazardous Waste Program (Interior Recycling) | 207 drums, 614 containers | 241 drums, 500 containers | 283 drums, 668 containers, 337 units |

Green text denotes an increase in materials collected from the previous year and red represents a decrease.

The HHW Program operates at the Interior Freight & Bottle Depot in Vernon. Materials are collected in drums and containers which have respective capacities of 205 and 20 litres. Actual volumes of materials will vary in each drum or container due to contents and how much it is filled. Materials classified as units are most often pressurized cylinders, primarily fire extinguishers. Single use propane and butane cylinders are included in the Propane Tanks category.

NON-DDF DIVERSION OF MATERIALS

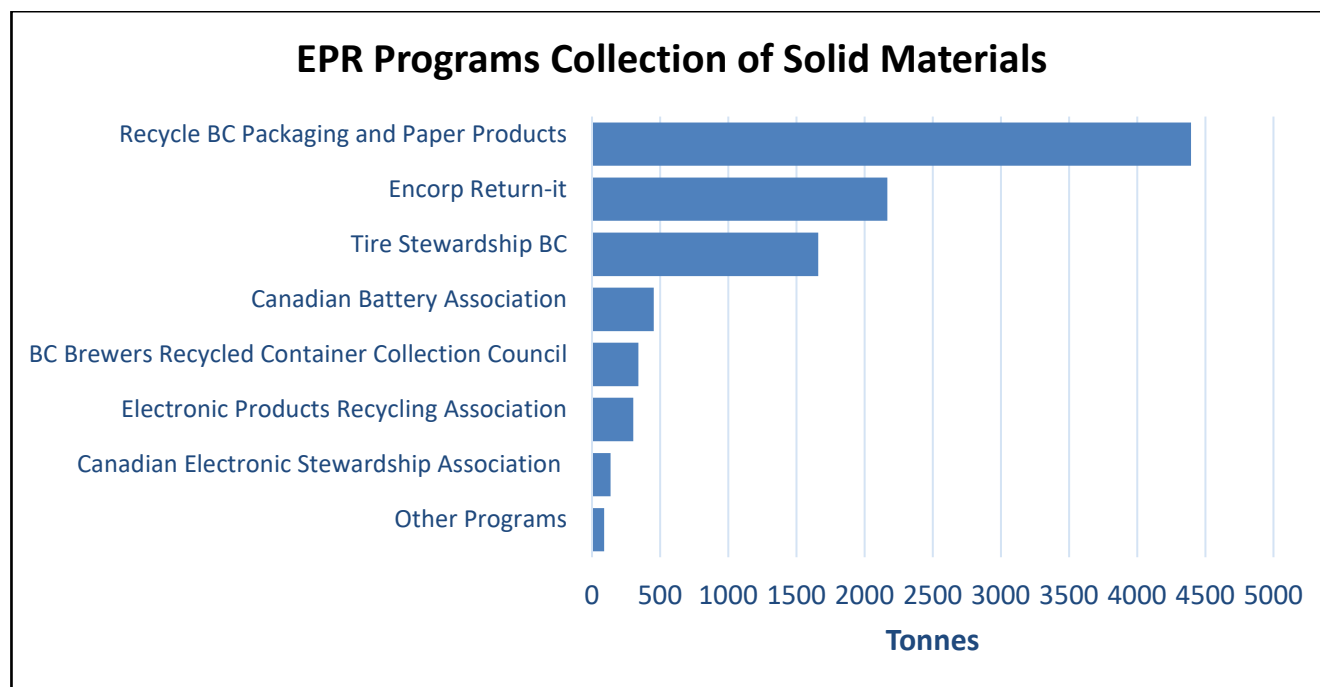
ReTHINK Waste Resources

The RDNO encourages residents to ReTHINK Waste and consider Reduce, Reuse and Recycle options first, before planning a trip to a DDF. Information resources can be found at www.rdno.ca/rethink and www.rdno.ca/whatgoeswhere. Thrift and secondhand stores, private and community garage sales, and online marketplaces provide potential reduce and reuse opportunities and are encouraged.

Extended Producer Responsibility

Provincial Extended Producer Responsibility (EPR) Programs support many products including curbside recycling for packaging and paper as well as depot programs for a wide range of other products including electronics, select household chemicals and automotive products.

A full list of programs and amounts of materials collected can be found in APPENDIX B. In 2021 provincial EPR programs in the RDNO (as reported to date, June 2022) collected over 9,545 tonnes (102 kg per capita) of solid products and over 1,327,148 litres (15 litres per capita) of liquid products for recycling or responsible end of life management. Collection programs for these products are at private recycling depots, participating retailers and take back events arranged by stewards. Recycle BC curbside and depot programs for packaging and paper products (4,395 tonnes collected), Return-it Beverage (2,168 tonnes collected) and Tire Stewardship BC (1,659 tonnes collected) are the three programs with the largest tonnage of materials collected in the RDNO among these programs.



The RDNO provides information resources about EPR programs through “What Goes Where Guides” that are on the rdno.ca website and in guides provided at DDF scale houses. Also, RDNO Staff are members of the BC Product Stewardship Council which is a coalition of regional districts that contribute to the success of EPR programs. A key part of this process is participating in the stewardship plan review process, which is open for public feedback, prior to provincial approval every 5 years.

The RDNO is a member of the Recycling Council of British Columbia (RCBC) and supports the RCBC Recycling Hotline and Recyclepedia online search tools with annual funding. These services are invaluable to guiding residents through a complex and extensive range of EPR programs as well as many other waste prevention and reduction options and are referenced in RDNO’s online What Goes Where Resources. RCBC reports their inquiries to each regional district annually and the results for the RDNO are listed in APPENDIX C.

ReTHINK Waste Project Grant

The RDNO ReTHINK Waste Project Grant Program supports innovative projects that reduce waste. Some of these projects directly reduce waste and have reportable metrics, whereas others may provide waste reduction education and may not have measurable waste reduction during their project year.

The following is a summary of completed 2021 projects:

- The Crafting a Change initiative had local students produce over 100 reusable bags from repurposed fabrics and learn about the impact of single-use plastics.
- Habitat for Humanity Okanagan's Kitchen Salvage Program dismantled over 100 kitchens and kept over 30 tonnes of reusable materials out of RDNO landfills.
- City of Vernon's Community Compost Bin Program kept over 375 tonnes of organics out of RDNO landfills and paved the way for residential curbside collection in 2022.

SOLID WASTE MANAGEMENT PLAN INITIATIVES

The following section presents work completed in 2021 for initiatives outlined in the Five Year Solid Waste Management Plan submitted in 2018. The implementation schedule for these initiatives can be found in APPENDIX D.

REDUCE, REUSE, RECYCLE

INCREASE ORGANICS DIVERSION:

1. Adopt Organics Diversion Strategy and develop Implementation Plan

- Due to the immense changes faced by many organizations from the impacts of COVID-19, implementation of the Food Scraps Disposal Ban was delayed in 2021.
- The terminology and scope of the ICI Food Waste Ban was revised to the Commercial Food Waste Disposal Regulation to more accurately reflect how it would be regulated and enforced. This was updated on the website and a bylaw amendment is planned for 2022.
- Continued to receive and compost yard and garden waste at the Greater Vernon Diversion & Disposal Facility (GVDDF) (no tipping fee imposed and Class A compost given away to the public)
- Continued to segregate yard and garden waste, wood waste and logs and stumps at all DDFs (chipped and used on site or composted).

REDUCE DISPOSAL FROM SINGLE FAMILY RESIDENTIAL HOUSEHOLDS:

1. Determine best options for collection service adjustments

- No changes for curbside collection in terms of RDNO providing service. RDNO does not provide curbside collection. Recycle BC continues to administer curbside collection of Packaging & Paper Products in all RDNO Municipalities with partial service in Electoral Areas.
- Armstrong and Lumby started curbside food waste collection in 2021 and Vernon has curbside food waste collection planned for 2022.

2. Design and implement behaviour change and education program

- Updated Solid Waste Management website content as part of the RDNO website upgrade.
- Developed a What Goes Where Guide to inform about what DDFs and local recycling depots accept to help residents plan and prioritize trips.
- Embedded the RCBC Recyclepedia search tool to the RDNO What Goes Where webpage to provide more accessibility to recycling search options.
- Waste Reduction E-Newsletter distributed quarterly.
- Operated a waste reduction information table at the Vernon Farmers Market during July and August.
- Facebook campaigns for Earth Week, Waste Reduction Week, Holiday Waste Reduction tips (Create Memories, Not Garbage).
- Staff revised a guided tour format of GVDDF and provided a tour to a Grade 11 class (approximately 25 students) from Vernon Secondary School.

REDUCE DISPOSAL FOR SECTORS SERVED BY COMMERCIAL HAULERS:

1. Develop disposal bans

- Commercial Food Waste Disposal Regulation to be implemented in 2022.

2. Plan and implement an illegal dumping prevention and enforcement program

- No activity in 2021.

3. Support level playing field and market development

- Staff responded to the BC MOE&CCS Recycling Regulation Policy Intentions Paper in 2020 and urged that ICI generated Packaging & Paper products should be included in the Recycling Regulation.

4. Design and implement behaviour change and education programs

- Developed food waste diversion guides and resources for Food Service Business and posted on the RDNO Commercial Food Waste Disposal webpage.
- Gypsum drywall is currently being stockpiled for isolated disposal in a monocell to reduce hydrogen sulphide emissions that can occur from landfilling this material. The market for recycling gypsum drywall requires less than 0.5% asbestos content (with loads of material found above this threshold facing severe penalties and cleanup costs). A new program for recycling commercial drywall is planned for 2022.

DEVELOP PROGRAMS TO ACTIVELY PROMOTE WASTE REDUCTION AND REUSE INITIATIVES:

1. Compost demonstration and backyard composting programs

- Continued rebate program for backyard composters with increased promotion, the program was very popular and reached budgeted capacity in 2021.

2. Continue to administer the Waste Reduction Initiatives Fund

- Awarded \$47,915 in funding through the ReTHINK Waste Project Grant program to a diverse range of projects that included: food scraps diversion, producing reusable bags and a kitchen fixture salvage program. Due to challenges facing organizations due to COVID-19, some organizations requested and were granted extensions to complete their projects in 2022.

3. Design and implement behaviour change and education programs

- Encouraged use of RCBC Recycling Hotline and Recyclepedia for callers to the Solid Waste Operations Office and through the RDNO website and E-Newsletter communications.

- Continued five year rate schedule (2020-2024) at RDNO's Diversion & Disposal Facilities with fees intending to incentivize waste diversion.
- Promoted reuse with establishment of a Propane Tank Adapter Hose Rebate Program to promote reusable propane cylinders as a more sustainable option than single-use cylinders. More information at: www.rdno.ca/propane. This popular program reached its budgeted capacity for the maximum number of rebates for the year.

ESTABLISH STAFF POSITIONS TO DEVELOP, IMPLEMENT AND PROVIDE ONGOING EFFICIENCY FOR PROGRAM EFFECTIVENESS

- 1. Re-establish a Waste Reduction Program Planner to oversee expansion to universal collection and organics diversion**
 - No activity in 2021.
- 2. Establish a staff position that collaborates with key stakeholders including haulers and businesses, provides educational support and other services, including providing support for organics program development and implementation**
 - Environmental Coordinator position is currently active.

RESIDUAL MANAGEMENT

DEVELOP CENTRALIZED DISPOSAL PLAN WITH ADDITIONAL LANDFILL CAPACITY

- 1. Greater Vernon Diversion & Disposal Facility (GVDDF) Lateral Expansion**
Consultant was retained to establish a preliminary design level for expansion that is suitable in preparation for an application to the BCMOE&CCS for amendments to the GVDDF Operational Certificate.
- 2. Armstrong/Spallumcheen Diversion & Disposal Facility (ASDDF) Transfer Station Development**
Consultant was retained to develop a conceptual design for a new transfer station at the ASDDF that was presented and endorsed for continued detail design work to be undertaken in 2022.
- 3. Lumby Diversion & Disposal Facility (LDDF) Transition to C&D Landfill**
No activity in 2021.
- 4. Hesperia Landfill (City of Vernon Initiative)**
No Activity in 2021.

PREPARE A DISASTER RESPONSE PLAN

No activity in 2021.

PLAN MONITORING AND EFFECTIVENESS

FIVE YEAR REVIEW – Scheduled for 2023.

WASTE COMPOSITION STUDY

Waste Composition Studies provide valuable benchmark data and analysis for evaluating the success of existing solid waste programs and planning future initiatives. Previous studies were completed in 2005 and 2012. The waste characterization study was postponed in 2020 in consideration of irregularities in waste trends resulting from the COVID-19 pandemic. In 2021, a consultant was retained to complete a Waste Characterization Study over two sampling sessions, Fall 2021 and Spring 2022. A final report is expected during Summer 2022.

PLAN FINANCING AND LANDFILL CLOSURE RESERVE

The annual transfer to the statutory Landfill Closure and Post Closure Reserve was \$2,128,222 to ensure sufficient funds are available for closure and post-closure activities at all the solid waste facilities. The estimated future closure costs (NPV) for all facilities are approximately \$26.4 M. The Five-Year Solid Waste Management Financial Plan is available through the RDNO Finance Department.

LOOKING AHEAD IN 2022

- A two part (Fall/Spring) Waste Characterization Study done at GVDDF will be completed with a Final Report released in Summer 2022.
- Amendments to RDNO Municipal Solid Waste Management Bylaw No. 2832, 2019 to support commercial drywall recycling and regulate commercial food waste disposal were approved by the RDNO Board of Directors in April 2022 and will go into effect July 1, 2022.
- A program to collect new construction drywall from authorized commercial customers for recycling and to minimize asbestos risk is planned to start in July 2022.
- A six month implementation period for Commercial Food Waste Disposal Regulation that will initially focus on organizations that produce large volumes of food waste will start in July 2022.
- Four (4) ReTHINK Waste Grant projects for food waste composting, wood reuse and cigarette waste are proceeding.
- Increased outreach, after two years of restrictions are taking place including school tours and information tables at community events.
- Further development of online information resources including a video tour of GVDDF are being planned.
- Design work for the ASDDF Transfer Station Development will continue with public consultation planned for late 2022.
- Further refinement of the preliminary design for the GVDDF landfill expansion, so that it is suitable in preparation for an application to the BCMOE&CCS.

APPENDIX A: REFUSE DISPOSED BY SOURCE, TYPE AND JURISDICTION

REFUSE DISPOSED BY SOURCE AND TYPE

The quantities of refuse disposed presented in the following tables are derived from what customers tell the scale attendants/gate attendants when they use the DDFs as well as from invoices and reports provided by RDNO contractors managing recyclable material collected and processed at the DDFs.

Table 1: Tonnes Disposed by Source and Type – 2021

| ARMSTRONG SPALLUMCHEEN DDF | | | | |
|-------------------------------------|--------------------|--|--|--------------|
| | Residential | Industrial Commercial & Institutional (ICI) | Construction & Demolition (C&D) | Total |
| Spallumcheen | 2,026 | 2,813 | 188 | 5,027 |
| Electoral Area F | 360 | 21 | 4 | 385 |
| Electoral Area C | 970 | 16 | 6 | 992 |
| Armstrong | 1,832 | 1,612 | 111 | 3,554 |
| Indian Band Lands | 696 | 22 | 32 | 751 |
| Vernon | 35 | 51 | 8 | 94 |
| Enderby | 1,108 | 38 | 114 | 1,261 |
| Electoral Area B | 51 | 5 | 15 | 72 |
| Cherryville Transfer Station | 165 | 0 | 0 | 165 |
| Coldstream | 1,296 | 3 | 1 | 1,300 |
| Out of RDNO Area | 8 | 0 | 8 | 16 |
| Electoral Area D | 165 | 0 | 0 | 165 |
| Lumby | 9 | 0 | 0 | 9 |
| Electoral Area E | 0 | 0 | 0 | 0 |
| Kingfisher | 0 | 0 | 0 | 0 |
| Kingfisher Transfer Station | 2 | 197 | 0 | 199 |
| Silver Star Transfer Station | 0 | 136 | 0 | 136 |
| SubTotals | 8,723 | 4,913 | 489 | 14,126 |

| LUMBY DDF | | | | |
|------------------------------|---------------|--|---------------------------------------|---------------|
| | Residential | Industrial Commercial & Institutional (ICI) | Construction & Demolition (C&D) | Total |
| LUMBY DDF | | | | |
| Electoral Area D | 537 | 3 | 0 | 540 |
| Lumby | 1,196 | 40 | 13 | 1,249 |
| Cherryville | 4 | 1 | 3 | 9 |
| Cherryville Transfer Station | 44 | 0 | 0 | 44 |
| Coldstream | 41 | 0 | 3 | 45 |
| Electoral Area F | 1 | 0 | 0 | 1 |
| Vernon | 1 | 0 | 0 | 1 |
| Electoral Area E | 0 | 0 | 0 | 0 |
| Enderby | 0 | 0 | 0 | 0 |
| Out of RDNO Area | 0 | 0 | 0 | 0 |
| Sub Totals | 1,825 | 45 | 20 | 1,889 |
| GREATER VERNON DDF | | | | |
| Vernon | 13,870 | 16,276 | 1,031 | 31,177 |
| Coldstream | 1,056 | 110 | 24 | 1,190 |
| Indian Band Lands | 110 | 21 | 2 | 132 |
| Out of RDNO Area | 18 | 8 | 1 | 27 |
| Electoral Area C | 273 | 4 | 13 | 290 |
| Electoral Area B | 74 | 4 | 1 | 79 |
| Spallumcheen | 5 | 0 | 0 | 5 |
| Cherryville Transfer Station | 91 | 1 | 0 | 92 |
| Cherryville | 1 | 1 | 0 | 2 |
| Armstrong | 28 | 0 | 0 | 28 |
| Lumby | 39 | 9 | 0 | 49 |
| Electoral Area F | 1 | 0 | 0 | 1 |
| Enderby | 2 | 3 | 0 | 5 |
| Electoral Area D | 0 | 0 | 0 | 0 |
| Electoral Area E | 0 | 0 | 0 | 0 |
| Silver Star Transfer Station | 5 | 30 | 0 | 35 |
| Kingfisher | 0 | 0 | 0 | 0 |
| Sub Totals | 15,575 | 16,465 | 1,072 | 33,112 |
| Grand Totals | 26,123 | 21,423 | 1,581 | 49,127 |

Table 2: Tonnes Disposed by Jurisdiction – 2021

| Source | Residential | ICI | C&D | Total |
|-------------------|---------------|---------------|--------------|---------------|
| Armstrong | 1,860 | 1,612 | 111 | 3,583 |
| Cherryville | 6 | 2 | 3 | 10 |
| Coldstream | 2,393 | 113 | 29 | 2,534 |
| Electoral Area B | 125 | 8 | 17 | 150 |
| Electoral Area C | 1,243 | 19 | 20 | 1,282 |
| Electoral Area D | 702 | 3 | 0 | 706 |
| Electoral Area E | 0 | 0 | 0 | 1 |
| Electoral Area F | 361 | 21 | 4 | 386 |
| Enderby | 1,110 | 42 | 114 | 1,266 |
| Indian Band Lands | 806 | 43 | 34 | 883 |
| Kingfisher | 0 | 0 | 0 | 0 |
| Lumby | 1,245 | 49 | 14 | 1,307 |
| Out of RDNO Area | 26 | 8 | 9 | 43 |
| Spallumcheen | 2,032 | 2,813 | 188 | 5,032 |
| Vernon | 13,906 | 16,327 | 1,039 | 31,272 |
| Totals | 25,815 | 21,060 | 1,581 | 48,456 |

Table 3: Tonnes Disposed through Transfer Stations (Not included in table above)

| Source | 2020 Total Tonnes | 2021 Total Tonnes |
|------------------------------|-------------------|-------------------|
| Cherryville Transfer Station | 277 | 302 |
| Kingfisher Transfer Station | 196 | 199 |
| Silver Star Transfer Station | 258 | 170 |

APPENDIX B: NON-DDF DIVERSION OF MATERIALS

The quantities of materials diverted from disposal through other reduce, reuse, recycle programs, outside the RDNO's jurisdiction and responsibility, include Extended Producer Responsibility (EPR) programs managed by the agencies in the following table. Amounts collected are from annual reports issued by each steward in June. Thrift or second hand stores (more than 25 stores), private and community garage sales and other charity programs also provide a good source of reuse and recycling options.

Table 4: BC Extended Producer Responsibility Program Amounts Collected and Amounts per RDNO Resident

| Steward | Product | Amount Collected | Amount Collected Per Capita |
|--|---|---|-----------------------------|
| BC Used Oil Management Association | Oil | 1,034,288 Litres | 11.38 L/Resident |
| BC Used Oil Management Association | Oil Filters | 134,571 Units | 1.48 Units/Resident |
| BC Used Oil Management Association | Containers | 47 Tonnes | 0.50 Kg/Resident |
| BC Used Oil Management Association | Antifreeze | 58,236 Litres | 0.62 L/Resident |
| BC Brewers Recycled Container Collection Council | Beer Bottles and Cans | 340 Tonnes | 3.64 Kg/Resident |
| Call2Recycle | Household Single Use & Rechargeable Batteries | 14 Tonnes | 0.15 Kg/Resident |
| Canadian Battery Association | Lead Acid Batteries | 452 Tonnes | 4.84 Kg/Resident |
| Canadian Electrical Stewardship Association | Small appliances, power tools and bulky exercise equipment. | 137 Tonnes | 1.47 Kg/Resident |
| Electronic Products Recycling Association | Computers, Toys, Audio/Visual Equip., Medical Equipment, etc. | 304 Tonnes | 3.25 Kg/Resident |
| Encorp Return-it | Beverage Containers (except beer) | 2,168 Tonnes | 23.21 Kg/Resident |
| Health Products Stewardship Association | Medication | 2 Tonnes | 0.02 Kg/Resident |
| HRAI Thermostat Recovery Program | Thermostats | 88 Units | 0.00 Units/Resident |
| Major Appliances Recycling Roundtable* | Fridges, Freezers, Water Coolers, Stoves, Washers, Dryers, etc. | 9,880 Units | 0.11 Units/Resident |
| Outdoor Power Equipment Institute of Canada | Electronic/Electrical Mowers, Snow Throwing Equipment and Gardening Tools - Corded and/or Battery Powered | 2021 data not identified as of June 2022. | |
| Product Care | Aerosols | 4,550 Litres | 0.05 L/Resident |
| Product Care | Aerosols Other | 1,006 Litres | 0.01 L/ Resident |
| Product Care | Flammable Liquids | 7,776 Litres | 0.08 L/ Resident |
| Product Care | Lamps (Light Recycle) | 3,430 Units | 0.04 Units/Resident |
| Product Care | Light fixtures (Light Recycle) | 27 Tonnes | 0.29 Kg/ Resident |

| | | | |
|--|---|-------------------------|---------------------------|
| Product Care | Paint | 220,752 Litres | 2.36 L/ Resident |
| Product Care | Pesticides | 540 Litres | 0.01 L/ Resident |
| Product Care | Smoke and Carbon Monoxide Detectors | 810 Units | 0.01 Units/Resident |
| Recycle BC | Packaging and Printed Paper (PPP) (Residential) | 4,395 Tonnes | 47.04 Kg/Resident |
| Recycle My Cell | Mobile Devices | 230 Units | 0.00 Units/ Resident |
| Tire Stewardship BC | Tires | 1,659 Tonnes | 17.76 Kg/Resident |
| Total Weight Reported for Solids Collected | Total | 9,545 Tonnes | 102.22 Kg/Resident |
| Total Volume Reported for Liquids Collected | Total | 1,327,148 Litres | 14.53 L/Resident |

*The Major Appliances Recycling Roundtable is the one Extended Producer Responsibility program operated at RDNO DDFs, as it is not offered at other locations in the regional district. The program provides a source of revenue for the RDNO.

Stewardship agencies listed above are required to report annually by regional district. Annual reports can be accessed through the Government of BC [Extended Producer Responsibility Plans and Annual Reports Webpage](#).

APPENDIX C: RECYCLING COUNCIL OF BC INQUIRY DATA

The Recycling Council of BC (RCBC) provides the Recycling Hotline and Recyclepedia online search tools to assist residents with safe and responsible reuse, recycling and disposal information. In 2021 RCBC received a total of 1,989 Hotline and Recyclepedia inquiries. This included 204 calls to the Recycling Hotline for 403 material inquiries and 1,586 unique web searches. Information for these services are summarized in the following graphics provided by RCBC:

Summary of Material Requests for the RDNO - 2021

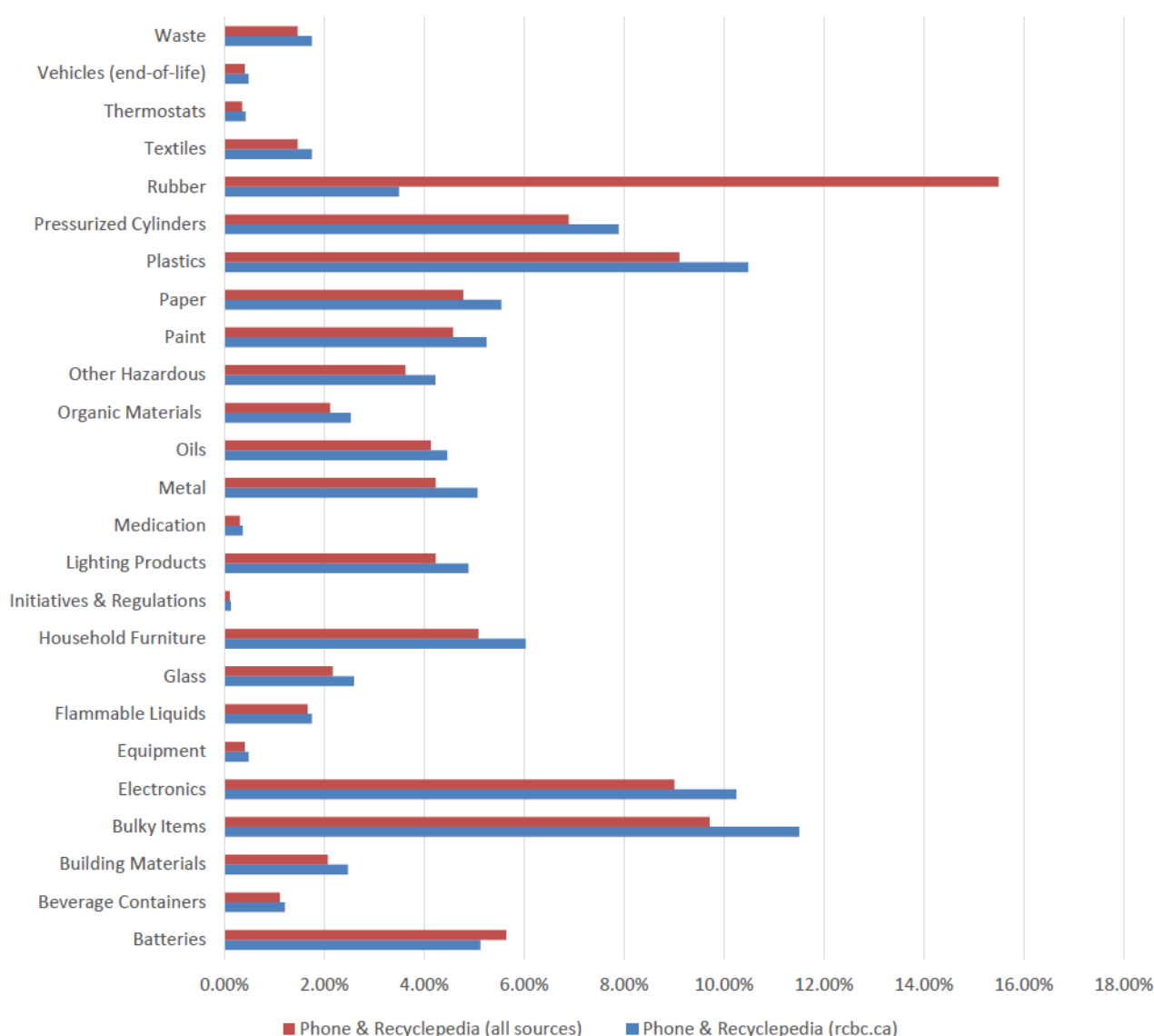


Figure 2: Summary of Material Requests for the RDNO - 2021

Phone & Recyclepedia (all sources) By Location

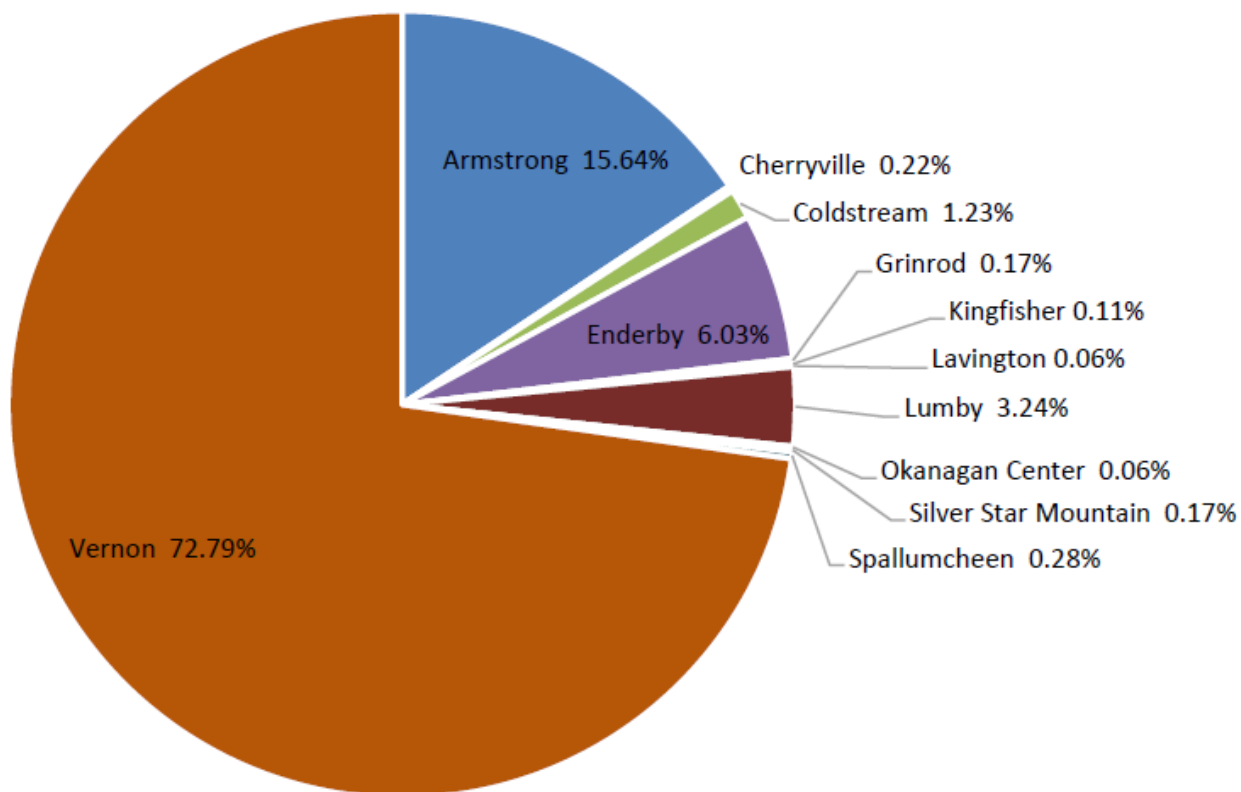


Figure 3: Phone & Recyclepedia by Location

APPENDIX D – SOLID WASTE MANAGEMENT PLAN IMPLEMENTATION SCHEDULE

The Solid Waste Management Plan Update 2017 was submitted to the BC Ministry of Environment & Climate Change Strategy (BCMOE&CCS) in June 2018. In 2017 and 2018 the RDNO hired a consulting firm to help update the Solid Waste Management Plan with the assistance of a Regional Solid Waste Advisory Working Group consisting of elected officials, stakeholders and members of the general public.

| Proposed Implementation Schedule | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|------|------|------|------|------|
| REDUCE, REUSE, RECYCLE | | | | | |
| Increase organics diversion | | | | | |
| Adopt Organics Diversion Strategy and develop Implementation Plan | | | | | |
| Reduce Disposal from SF Residential Households | | | | | |
| Determine best options for collection service adjustments | | | | | |
| Design and implement behavior change and education program | | | | | |
| Reduce Disposal for Sectors Served by Commercial Haulers | | | | | |
| Develop disposal bans | | | | | |
| Plan and implement an illegal dumping prevention and enforcement program | | | | | |
| Support level playing field and market development | | | | | |
| Design and implement behavior change and education programs | | | | | |
| Develop Programs to Active Promote Waste Reduction and Reuse Initiatives | | | | | |
| Compost demonstration and backyard composting programs | | | | | |
| Continue to administer the Waste Reduction Initiatives Fund | | | | | |
| Design and implement behavior change and education programs | | | | | |
| Establish staff positions to develop, implement and provide ongoing efficiency for program effectiveness | | | | | |
| Re-establish a Waste Reduction Program Planner to oversee expansion to universal collection and organics diversion | | | | | |
| Establish a staff position that collaborates with key stakeholders including haulers and businesses, provides educational support and other services, including providing support for organics program development and implementation | | | | | |
| RESIDUAL MANAGEMENT | | | | | |
| Develop centralized disposal plan with additional landfill capacity | | | | | |
| GVRDF Lateral Expansion | | | | | |
| ASRDF Transfer Station Development | | | | | |
| LRDF Transition to C&D Landfill | | | | | |
| Hesperia Landfill (City of Vernon) | | | | | |
| Prepare a Disaster Response Plan | | | | | |
| PLAN MONITORING AND EFFECTIVENESS | | | | | |
| Five Year Review | | | | | |
| Waste Composition study | | | | | |

Figure 4: Solid Waste Management Plan 2017 Proposed Implementation Schedule

Since this list has been developed, Recycling and Disposal Facilities (RDFs) have been renamed to Diversion & Disposal Facilities (DDFs).

Prepared by: RDNO Solid Waste Management Staff

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