

# SWMP Status Overview and Plan Direction



Prepared for:

**Regional District of Kootenay Boundary**

TECHNICAL MEMORANDUM 1 Final

Submitted by:

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## 1. INTRODUCTION

In British Columbia, regional districts develop solid waste management plans (SWMP or Plan) under the provincial *Environmental Management Act* that are long term visions of how the regional district would like to manage its solid wastes in accordance with the pollution prevention (5 R) hierarchy. This Plan will be renewed on a 10-year cycle to ensure that it reflects the current needs of the Regional District of Kootenay Boundary (RDKB or the District), as well as current market conditions, technologies and regulations.

The RDKB prepared their first SWMP in 1995 and amended that Plan in 2005. Following the 10-year cycle of these Plans, the RDKB began the amendment process in 2013, however this review and update was abandoned due to upcoming changes in legislation, and the 2014 Plan was never submitted for approval. Now, the RDKB has once again started the review and update process, which will follow the 2016 Guide to Solid Waste Management Planning (the Guide) document from the BC Ministry of Environment and Parks (ENV).

This document provides a comprehensive overview of the current solid waste management system within the RDKB and a brief assessment of the waste management strategies outlined in both the 2005 and 2014 Plans. This Technical Memorandum (TM1) includes information on:

- 1) The source, composition, and quantity of solid waste generated within the RDKB.
- 2) How the principles and strategies set in the 2005 SWMP have been pursued or accomplished.
- 3) Collection pathways for recycling, recovery, and residual management within the RDKB.
- 4) Existing and planned solid waste management capacity, including the remaining capacity within the system and projected needs of the RDKB.
- 5) Product stewardship programs within the region.
- 6) Educational programs, including those supporting behavioural change.

This review will inform the creation of the updated SWMP, and will allow the RDKB to develop potential strategies, consult the public and other stakeholders, and assess financial and administrative impacts of the system.

### 1.1 Principles, Goals, and Targets

As outlined in the Guide, there have been many changes in the solid waste management sector over the last 25 years, including the following:

- The Guide states that BC’s population is growing, meaning that more waste will be generated and require disposal; however the most recent population estimates and projections for BC indicate that the population as of the end of 2025 is expected to remain at a similar level until the end of 2027. This comes from a decrease in the number of Non-Permanent Residents in the province.<sup>[1]</sup>
- British Columbians are increasingly conscious of the need to “reduce and reuse” and many communities have set the goal of reducing to zero waste through a variety of measures.
- A growing number of product stewardship programs exist in BC to take responsibility for end-of-life product management.

- Private sector innovation is playing a progressively significant role in the collection and management of waste.
- “Waste” is increasingly viewed as a resource; products that were once sent to landfills are now carefully collected for reuse, recycling, and/or recovery.

The Guide encourages the 5R pollution prevention hierarchy, recognizing that although local governments have limited ability to influence product design and manufacturing and upstream environmental impacts, this type of planning can help to minimize downstream environmental impacts associated with the end-of-life products. Since 2016, the 5R hierarchy has evolved into the zero waste hierarchy (Figure 1) as defined by Zero Waste Canada. The RDKB is using this zero waste hierarchy to develop the foundation of solid waste management in the region and to implement the new SWMP once completed.



Figure 1: Zero Waste Hierarchy <sup>[2]</sup>

### 1.1.1 Provincial Guiding Principles

The Guide outlines eight guiding principles for regional districts to follow in developing and updating their SWMP and encourages regional districts to include additional locally relevant principles. The following is a list of the province’s eight guiding principles including illustrative descriptions:

**Promote zero waste approaches and support a circular economy** – this concept shifts thinking of waste as a residual to be disposed to waste as a resource that can be utilized in a closed loop system. Zero waste approaches seek to minimize waste generation at the outset and enable the use and reuse of materials.

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**Promote the first 3 Rs (Reduce, Reuse, Recycle)** – develop policies that focus on waste prevention programming and consider provincial and regional targets and objectives (eg. Single use plastics ban).

**Maximize beneficial use of waste materials and manage residuals appropriately** – look to use technology and best practices to recover energy and reusable materials from waste stream and continue to develop infrastructure investment.

**Support polluter and user-pay approaches and manage incentives to maximize behaviour outcomes** – use market-based incentives, disposal restrictions on industry-stewarded products, zoning to support collection facilities, and support for reuse and remanufacturing businesses to maximize behaviour change and educate consumers and businesses to help foster further waste reduction, reuse, and recycling. For example, user and tipping fees can be designed to provide incentives to increase diversion.

**Prevent organics and recyclables from going to the garbage wherever practical** – maintain a system to prevent organics and recyclables from going into the garbage at the source or at the disposal facility through curbside or drop off collection programs aimed at producing a clean feedstock for higher beneficial reuse and new product development such as Class A compost and waste derived fuel (plastic). Reinforce behaviour to reduce, reuse, and recycle through disposal site restrictions and education.

**Collaborate with other regional districts wherever practical** – collaboration on solid waste management to share markets, campaigns, and programs will support efficient and effective overall management of commonly generated waste materials.

**Develop collaborative partnerships with interested parties to achieve regional targets set in Plans** – seek to develop or strengthen partnerships with interested parties to achieve regional targets to optimize successful outcomes such as with large waste generators and stewardship agencies. Encourage private sector innovation and investment towards achievement of targets.

**Level the playing field within regions for private and public solid waste management facilities** – encourage consistent requirements at solid waste management facilities within a given region to drive sustainable and robust economic outcomes. A consistent set of criteria should be used to evaluate the waste management solutions proposed by private sector.

### 1.1.2 RDKB Guiding Principles and Goals

The 2005 SWMP set out 5 guiding principles to serve the Region relative to resource recovery as follows:<sup>[3]</sup>

- For the purpose of ecological sustainability, the consumption of material and energy resources shall be minimized.
- The regional solid waste stream shall be reduced to the extent practically possible, in accordance with the hierarchy of reduce, reuse, and recycle. These efforts shall be consistent with local resources and desire for implementation.
- Based on the precautionary principle, pollution of the environment through solid waste disposal or treatment shall be eliminated or reduced to the degree possible without imparting undue hardship on local communities and resources.



- User-pay and market-based incentives shall put preference on waste reduction. Individuals and businesses shall have access to information enabling them to make sound choices about waste generation and disposal.
- Reduction, recycling collection, and disposal policies and strategies shall be developed through public consultation and must be socially acceptable, cost effective and based on full cost accounting.

In addition to the 5 guiding principles the 2005 SWMP set out 7 different goals for the plan and at the same time identified barriers to achieving these goals. The barriers are items that are relevant today, including the Regional District having the responsibility but not the authority to regulate the waste stream, and the Province has not enforced nor expanded Extended Producer Responsibility programs to the extent that should have been done. With these barriers in mind, the following list presents the goals set out in the 2005 SWMP:

- To develop a 20-year plan establishing an economically and technically feasible program to recover resources and manage solid waste that is both environmentally safe and acceptable to the public.
- To maximize the potential for implementing the 5 R's waste management hierarchy – Reduce, Reuse, Recycle, Recover, and Residual Management.
- Building on past achievements, enabling all generators of waste in the RDKB to move towards the goal of Zero Waste and to provide an annual report to residents and the Board on progress towards the goal. The RDKB's interim objectives were to reach 60% diversion by 2010, 80% diversion by 2015 and 100% diversion by 2020.
- To coordinate and cooperate with neighbouring Regional Districts to increase resource recovery and improve solid waste management.
- To develop and promote partnerships with senior levels of government by acknowledging a shared responsibility in the protection and enhancement of the environment.
- To promote an encourage adoption of the “Extended Producer Responsibility” model for all waste management activities in British Columbia.
- To work cooperatively with all communities in the Regional District of Kootenay Boundary to the extent possible, to achieve the goals of the plan.

### 1.1.3 Provincial Targets

The Ministry of Environment and Parks has established provincial solid waste management targets that set a direction for regional districts to follow and allow for performance measurement at the provincial level. These targets have been set by the ENV and are adjusted to reflect current realities and public expectations, which were adjusted most recently in the 2025/26 – 2027/28 Service Plan under Objective 1.2: Advance Circular Economy and Clean Communities.



**Table 1: Performance Measure for ENV Service Plan Objective 1.2**

Year	Per Capita MSW Disposal (kg/person)
2021/22 Baseline	506
2024/25 Forecast	480
2025/26 Target	470
2026/27 Target	460
2027/28 Target	450

## 1.2 RDKB Plans, Policies, and Bylaws

In 2022 the RDKB prepared a climate action plan with a 5-year outlook, seeking to guide the RDKB in improving energy efficiency and reducing GHG emissions in both community and corporate activities, and preparing for climate change and increasing community resilience. A section of this climate action plan addresses management of waste in the RDKB, with the following community actions: <sup>[4]</sup>

- Action 3.8 – implement the South Kootenay/East Side curbside organics diversion program, including an educational program on organics diversion and food waste reduction.
- Action 3.9 – continue to monitor opportunities to mitigate fugitive emissions from landfills.
- Action 3.10 – continue to advocate for the expansion of the extended producer responsibility programs covered by RecycleBC.
- Action 3.11 – implement the expanded organics diversion program in the Boundary to include commercial organics and biosolids.

In addition to the climate action plan, in 2023, the RDKB prepared a strategic plan which reflects the goals, priorities, and objectives of the District through 2027. One of the core strategic priorities is climate action and environmental sustainability, under which the RDKB has identified the key focus areas: <sup>[5]</sup>

- 1) Advocating for and implementing waste and wastewater management initiatives that are fiscally and financially responsible.
- 2) Enabling climate change adaption, mitigation, and resiliency through sub-regional and regional initiatives.
- 3) Leading by modelling responsible behaviour.

The RDKB has also implemented several policies that seek to promote responsible waste management within the region, including:

- **Adopted 2002, updated 2020:** The RDKB's Contaminated Soil Policy establishes criteria and procedures for the acceptance of contaminated soil at the RDKB's regional landfill sites.
- **Adopted 2006, updated 2025:** Waiver of Tipping Fees Policy waives tipping fees for non-profit community groups or individuals carrying out work beneficial to the local community.

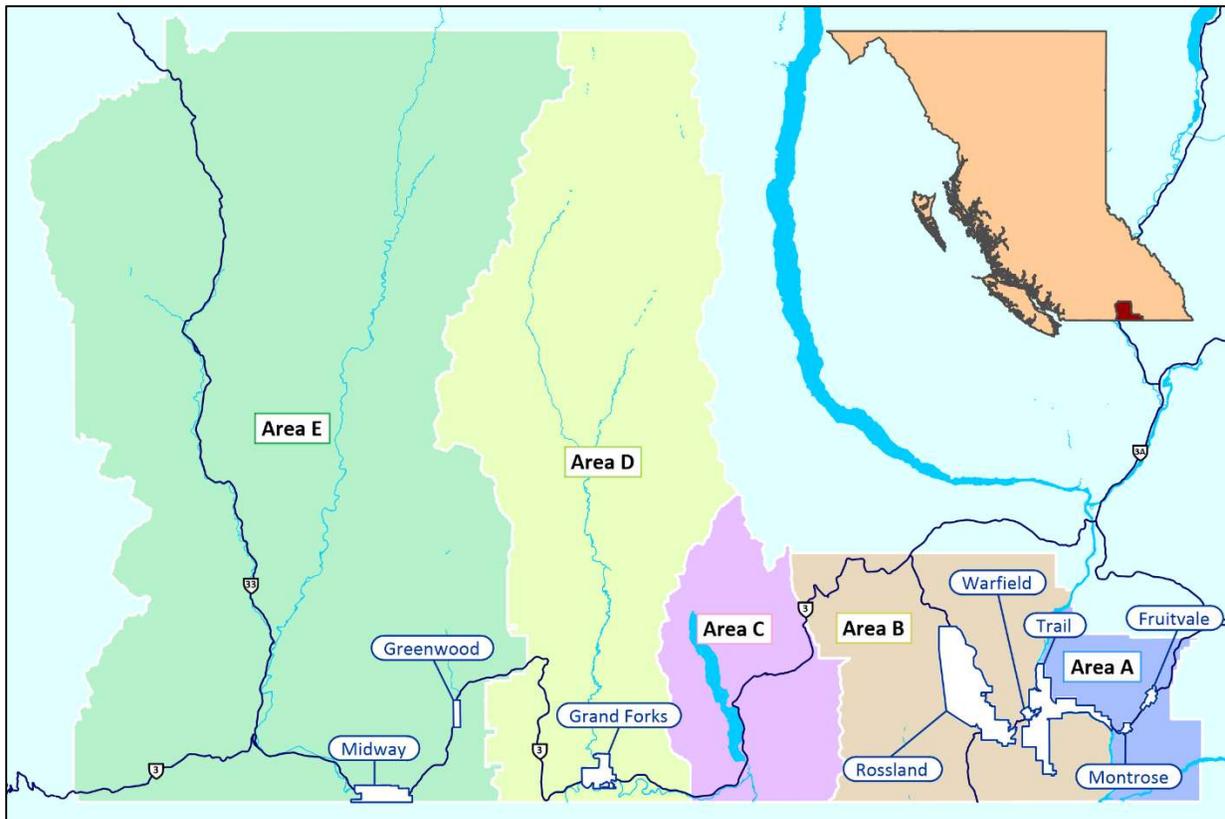


- **Adopted 2006:** The RDKB’s Zero Waste Policy endorses the goal of zero waste and guides the regional district in the development of technology and public programs that contribute to a waste free future.
- **Adopted 2011, updated 2025:** The Low Carbon Resilient Building Policy seeks to have all new RDKB owned or managed buildings be high-performing, climate resilient, accessible, and zero carbon.
- **Adopted 2011, updated 2025:** The Corporate Sustainable Initiatives Policy looks to cultivate a sense of social, economic, and environmental responsibility through the course of sustainable practice within daily operations.
- **Adopted 2006, updated 2023:** Through the Fleet Vehicle Replacement Policy, the RDKB has committed to prioritizing the purchase of electric and zero-emission vehicles over traditional gas vehicles.

## 2. BACKGROUND INFORMATION FOR THE RDKB

This section of the report provides an overview of the RDKB including the area of the Plan, the population within the regional district, and the dwelling types within the RDKB.

The Solid Waste Management Plan applies to the entire RDKB which encompasses 8,200 km<sup>2</sup> and includes eight municipalities and five unincorporated electoral areas. The municipalities include Fruitvale, Montrose, Trail, Warfield, Rossland, Grand Forks, Greenwood, and Midway, as presented in Figure 2.



**Figure 2: Regional District of Kootenay Boundary Map**

## 2.1 Population

The RDKB has approximately 33,500 residents, with the majority of the population residing in the greater Trail area. The estimated 2024 populations are shown in Table 2, based on the 2021 census populations and the growth rates from statistics BC. <sup>[6] [7]</sup> Table 2 also includes an estimated temporary population, based on the difference in the number of private dwellings and the number of private dwellings occupied by usual residents, and the average household size for each area. These temporary populations are focused in the Big White ski area that sees significant population growth during the winter months, as well as the Christina Lake area which includes vacation homes and sees a large population increase during the summer.

**Table 2: 2024 RDKB Estimated Population**

Area	Full Time Pop.	% of Total	Temporary Pop.
Regional District of Kootenay Boundary	33,647		7,920
Electoral Area A	1,659	5%	68
Electoral Area B – Lower Columbia-Old Glory	1,452	4%	62
Electoral Area C – Christina Lake	1,662	5%	1,232
Electoral Area D – Rural Grand Forks	3,295	10%	235
Electoral Area E – West Boundary	3,068	9%	4,698
Fruitvale	1,996	6%	52
Grand Forks	4,162	12%	208
Greenwood	719	2%	142
Midway	654	2%	31
Montrose	1,021	3%	15
Rossland	4,166	12%	630
Trail	8,102	24%	485
Warfield	1,692	5%	64

The population growth is projected by BC statistics out to 2036 through the component/cohort-survival method, a model which ‘grows’ the population from the latest base year estimate (the 2021 census) by forecasting births, deaths, and migration by age. This model was available for the overall RDKB and the member municipalities and predicted an overall decrease in population of 0.55% each year from 2024 to 2034. These projections are shown in Table 3.

**Table 3: Statistics BC 10-year Annual Population Projections (2024 to 2034)**

Area	Projected Annual Pop. Change	Projected 2034 Population
RDKB	-0.55%	31,841
Fruitvale	-1.02%	1,801
Grand Forks	-0.82%	3,833
Greenwood	-0.67%	672
Midway	-1.00%	591



Area	Projected Annual Pop. Change	Projected 2034 Population
Montrose	-1.10%	914
Rossland	-0.38%	4,010
Trail	0.62%	8,619
Warfield	-1.09%	1,516

## 2.2 First Nations

There are no First Nations communities within the RDKB, but there are several groups that may have interest in the lands that make up the District, including:

- 1) Okanagan Nation Alliance
- 2) Okanagan Indian Band
- 3) Osoyoos Indian Band
- 4) Penticton Indian Band
- 5) Lower Similkameen Indian Band
- 6) Westbank First Nation
- 7) Ktunaxa Nation Council
- 8) Shuswap Indian Band
- 9) Splots'in Indian Band
- 10) Adams Lake Indian Band
- 11) Neskonlith Indian Band
- 12) Whispering Pines/Clinton Indian Band
- 13) The Confederated Tribes of the Colville Reservation/Sinixt Confederacy

## 2.3 Housing Data

The type of housing throughout the RDKB is largely single detached house at 77% of the population, with the next largest category at 10% of apartments in buildings with less than 5 storeys as shown in Table 4. This emphasizes the rural nature of the RDKB, along with areas such as Christina Lake, Big White, and Electoral Area E containing many single detached houses, or 'single family' homes.

**Table 4: Housing Types in the RDKB<sup>[8]</sup>**

Housing Type	# of units (2021)	% of Occupied Dwellings
Single Detached House	11,650	76.7%
Semi Detached House	405	2.7%
Row House	425	2.8%
Apartment or Flat in Duplex	335	2.2%
Apartment in Building with Fewer than 5 Storeys	1,555	10.2%
Apartment in Building with 5 or More Storeys	30	0.2%
Other Single-Attached House	40	0.3%
Movable Dwelling	750	4.9%

## 2.4 Employment Data

The majority of employed people within the RDKB work within the healthcare sector which is consistent with the overall population with British Columbia. However, there are relatively more people employed in the manufacturing industry compared to the rest of the province, indicating that there may be a larger amount of industrial waste compared to other regional districts within British Columbia. Table 5 shows the distribution of occupation types throughout the RDKB.

**Table 5: Occupation Types in the RDKB <sup>[8]</sup>**

Occupation Type	# of people	% of total
Health care and social assistance	2210	14.7%
Manufacturing	1770	11.8%
Retail trade	1755	11.7%
Construction	1340	8.9%
Accommodation and food services	1035	6.9%
Educational services	975	6.5%
Agriculture, forestry, fishing, and hunting	865	5.7%
Professional, scientific, and technical services	775	5.2%
Other services	760	5.1%
Public administration	630	4.2%
Administrative and support, waste management and remediation services	600	4.0%
Transportation and warehousing	395	2.6%
Arts, entertainment and recreation	385	2.6%
Finance and insurance	310	2.1%
Mining, quarrying, and oil and gas extraction	280	1.9%
Utilities	275	1.8%
Real estate and rental and leasing	260	1.7%
Wholesale trade	225	1.5%
Information and cultural industries	115	0.8%
Management of companies and enterprises	85	0.6%

## 3. 2005 SWMP STRATEGIES

This section provides an overview of the strategies presented and approved in the 2005 Solid Waste Management Plan through Table 6 which is included in Attachment 1. This table indicates the status of these strategies, whether completed, ongoing, or abandoned. The nuances between these status indicators are as follows:

- In Progress – these are strategies that have been started but have not yet met the full intent or purpose of the strategy.
- Not Started – these strategies were not started or implemented since the 2005 SWMP.

- Ongoing – these strategies have been started and don't technically have an end date – strategies that are 'complete' but continue to be practiced.
- Completed – these strategies have been fully implemented and do not require ongoing practice/implementation.
- Abandoned – These are strategies that were started but are no longer practiced or implemented.

## 4. SOLID WASTE MANAGEMENT IN THE RDKB

This section outlines the current state of solid waste management within the Regional District of Kootenay Boundary.

### 4.1 Facilities

The RDKB operates three regional landfills, four staffed transfer stations, and three unstaffed transfer stations. These facilities are listed below along with their operating hours (all facilities except Big White are closed on statutory holidays) and are shown in Figure 3.

#### 1) Landfills

- a. McKelvey Creek Landfill
  - i. 8:30am – 4:30pm, 7 days a week
- b. West Boundary Landfill
  - i. 9:00am – 4:00pm, Tuesday, Friday, & Saturday
- c. Grand Forks Landfill
  - i. 8:30am – 4:00pm, Tuesday to Saturday
  - ii. 12:00pm – 4:00pm, Sunday

#### 2) Attended Transfer Stations

- a. Rock Creek Transfer Station
  - i. 10:00am – 3:00pm, Monday, Thursday, & Saturday
  - ii. 10:00am – 5:00pm on Sundays
- b. Christina Lake Transfer Station
  - i. 10:00am – 3:00pm, Saturday, Sunday, Monday, & Thursday
  - ii. Additional hours in July and August: 10:00am – 3:00pm on Tuesdays
- c. Beaverdell Transfer Station
  - i. 10:00am – 2:00pm, Wednesday & Sunday
- d. Big White Transfer Station
  - i. Summer Hours: May 1 – October 31
    1. 9:30am – 5:30pm, Wednesday, Friday through Monday and Statutory Holidays



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ii. Winter Hours: November 1 – April 30

1. 9:30am – 5:30pm 7 days a week including Statutory Holidays

3) Unattended Transfer Stations

a. Idabel Lake Transfer Station (unattended)

i. 24 hours a day 7 days per week

b. Mount Baldy Transfer Station (unattended)

i. 24 hours a day 7 days per week

c. Christian Valley Transfer Station (unattended – garbage only)

i. 24 hours a day 7 days per week

The Big White transfer station was recently converted to a staffed facility with set operating hours, prior to which upgrades were made including a new office, cameras, and signage. In addition to these transfer stations, the RDKB offers a drop-off on select days during the summer at boat launches on Cristina Lake to service residences that are boat access only. These are as follows:

1. Larson Road Marina

a. May 18, June 1-29 & September 7-28, 2025

a. Sundays 10:00am – 11:00am

b. July 1 – September 1, 2025

a. 10:00am – 11:00am Sundays and Wednesdays

2. Texas Creek Boat Launch

a. July 1 – September 1, 2025

a. 10:00am – 11:00am Fridays

## 4.2 Waste Disposal Data

The Regional District of Kootenay Boundary can be separated into 4 different waste sheds separated by where waste is primarily deposited. These areas are shown in Figure 3, and are separated as follows:

- **Big White Waste Shed:** Waste from the Idabel Lake and Big White Transfer Stations are brought to the Glenmore Landfill in Kelowna, which is owned and operated by the City of Kelowna.
- **West Boundary Waste Shed:** Waste from Electoral Area E (West Boundary), the Village of Midway, and the City of Greenwood is collected from various transfer stations and deposited at the Greenwood Landfill.
- **Grand Forks Waste Shed:** Waste from Electoral Area C (Christina Lake), Electoral Area D (Grand Forks Rural), and the City of Grand Forks are deposited at the Grand Forks Landfill.
- **Kootenay Waste Shed:** Waste from the municipalities within the greater Trail area and Electoral Areas A and B are deposited at the McKelvey Creek Landfill.





**Figure 3: Waste Sheds and Waste Management Facilities Within the RDKB**

The waste tonnages that are managed by these facilities are shown in **Error! Reference source not found.**, separated by the waste sheds as shown in Figure 3. With a projected 2024 fulltime population of 33,647 and an estimated temporary population of 7,920 (counts for 0.5 fulltime population) for a total population of 37,607 the RDKB had a waste disposal rate of 0.478 tonnes per person in 2024. This is just below the provincial forecast for the year of 0.480 tonnes per person. Please note that Table 6 landfilled tonnages also include waste dropped off at landfills and transfer stations directly and waste collected through curbside programs.

**Table 6: Waste Tonnages Disposed at RDKB Facilities**

Facility	2024 Tonnage
<b>Export to Glenmore Landfill</b>	<b>864</b>
Idabel Lake Transfer Station	40
Big White Transfer Station	824
<b>West Boundary Landfill</b>	<b>972</b>
Mt. Baldy Transfer Station	174
Rock Creek Transfer Station	395
Beaverdell Transfer Station	174
Christian Valley Transfer Station	55
<b>Grand Forks Landfill</b>	<b>6,411</b>
Christina Lake Transfer Station	332
<b>McKelvey Creek Landfill</b>	<b>9,726</b>
<b>Total RDKB Waste Tonnage Landfilled</b>	<b>17,972</b>

### 4.3 Waste Composition

The RDKB conducted waste composition studies for the McKelvey Creek Landfill and the Grand Forks Landfill in 2023, with an additional study for the McKelvey Creek Landfill in 2024 following the implementation of the RDKB’s green bin program for food waste collection. In addition to the more recent waste composition studies, a 2006 study was conducted and the categories have been related to the new studies. This is presented in Figure 4 along with the other waste composition studies completed in 2023 and 2024. <sup>[9][10]</sup>

Since 2005 compostable organics have significantly decreased, likely due to the food waste collection programs and the continued acceptance of yard waste at facilities. However, the percentage of non-compostable organics such as treated wood, textiles, and other organic items such as wooden toys, candles, or broom handles have significantly increased since 2005 from 2% up to around 20% of the waste stream. The 2023 waste composition study identified that the overall diversion potential was approximately 70%, consisting of 4 main categories:

- 1) Drop-off materials (29%): treated wood, building materials, and bulky objects including mattresses and furniture.
- 2) Compostable materials (23%): avoidable and unavoidable food waste, compostable and food-soiled paper.
- 3) Recyclable materials (14%): plastic films, rigid plastic packaging, paper packaging, glass containers, and fine paper. This includes RecycleBC materials.
- 4) Other product stewardship materials (4%): materials covered by other Extended Producer Responsibility (EPR) programs such as small appliances and other beverage containers. <sup>[9]</sup>



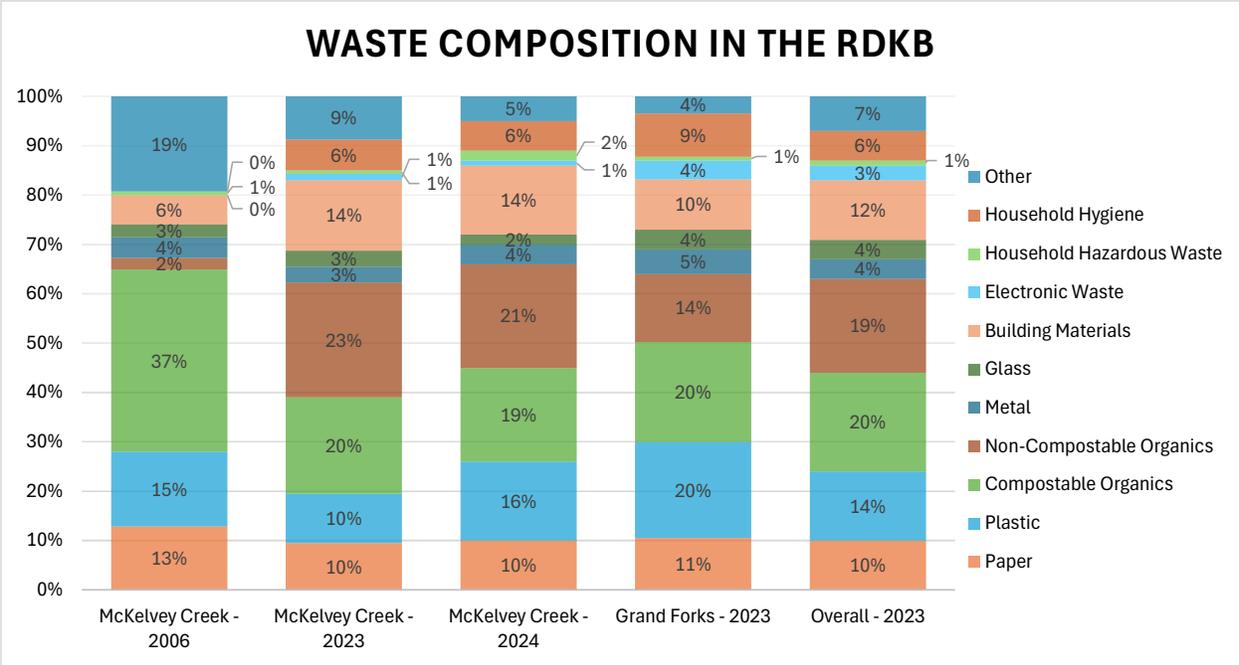


Figure 4: Waste Compositions in the RDKB

### 4.4 Residual Management Capacity

The three regional landfills operated by the RDKB have varying levels of use and therefore usable lifespan based on the amount of waste deposited and the availability of airspace at each site. In 2025 the RDKB completed reviews and updates of closure estimates and related cash flows for each of the landfill sites within the region. These updates included an estimate of the remaining lifespan of each landfill based on the current authorized permit area, with the important assumption that the population will not significantly change during the remaining lifespan of these sites. The analysis found the following expected lifespans:

- Grand Forks: Final capacity expected to be reached in 2037<sup>[11]</sup>
- McKelvey Creek: Final capacity expected to be reached in 2073<sup>[12]</sup>
- West Boundary (Greenwood): Final capacity expected to be reached in 2061<sup>[13]</sup>

This residual capacity means that there is room for residual management in the 10 years covered by this update to the Solid Waste Management Plan. With the RDKB’s continued efforts to reduce the amount of waste being deposited at the landfill, it can be expected that these lifespans will be extended even further but it would be prudent to consider long term planning for residual management facilities within the updated SWMP.

### 4.5 Diversion Rates

There are two types of diversion programs undertaken in the RDKB – Extended Producer Responsibility (EPR) programs and RDKB implemented programs. EPR programs are provincially regulated and put the responsibility on the producer to manage the environmental impact of the item throughout its lifecycle, from selection of materials and design to the management of the product at

the end of its life. These programs are required for certain products and are typically funded by charging the consumer a non-refundable fee for the collection and management of that product.

The EPR programs are constantly being expanded upon, with 2025 seeing single-use fuel canisters, fire extinguishers, and medical sharps added to the program. However, the Province had also promised in the 2020 action plan to include mattresses by 2026, which has now been postponed. Mattresses are bulky items that take up a lot of space in landfills, and along with packaging and paper products from the industrial, commercial, and institutional sector place a large financial burden on regional districts. It will be important for the RDKB to continue to lobby the provincial government to implement and expand these stewardship programs to reduce the amount of waste landfilled in the region.

In addition to these EPR items, the RDKB requires the sorting and separation of specific materials at their disposal facilities where they are stockpiled prior to being marketed off-site and/or used beneficially within the landfill instead of soil, road building aggregate, or for composting. This includes the separation and chipping of clean wood and yard and garden waste, the collection and composting of food waste, and the separation and shipping off-site of scrap metal, including appliances, and propane tanks. Since record keeping of metal and food waste collected started in 2016, the amounts collected have continued to increase, with a clear increasing trend since 2022.

## 5. GARBAGE COLLECTION SERVICES

The collection of MSW in communities and the transportation to a regional landfill is a local service, whether managed by the local municipality or the RDKB for an unincorporated community. The RDKB has recently taken over the curbside collection service in the McKelvey Creek area (Trail, Rosland, Warfield, Fruitvale) with the implementation of the green bin program. In other parts of the Regional District where there are no curbside collection services, residents and businesses in the area must self-haul waste to a transfer station – this may also be undertaken by residents or businesses where curbside collection is offered if they have additional waste that is not covered under collection services.

**Error! Reference source not found.** Table 7 presents a summary of the local garbage collection services throughout the RDKB. Of note is that the RDKB operates all of the curbside collection services throughout the RDKB, following agreements with the municipalities during the implementation of the green bin program in the eastern portion of the District.

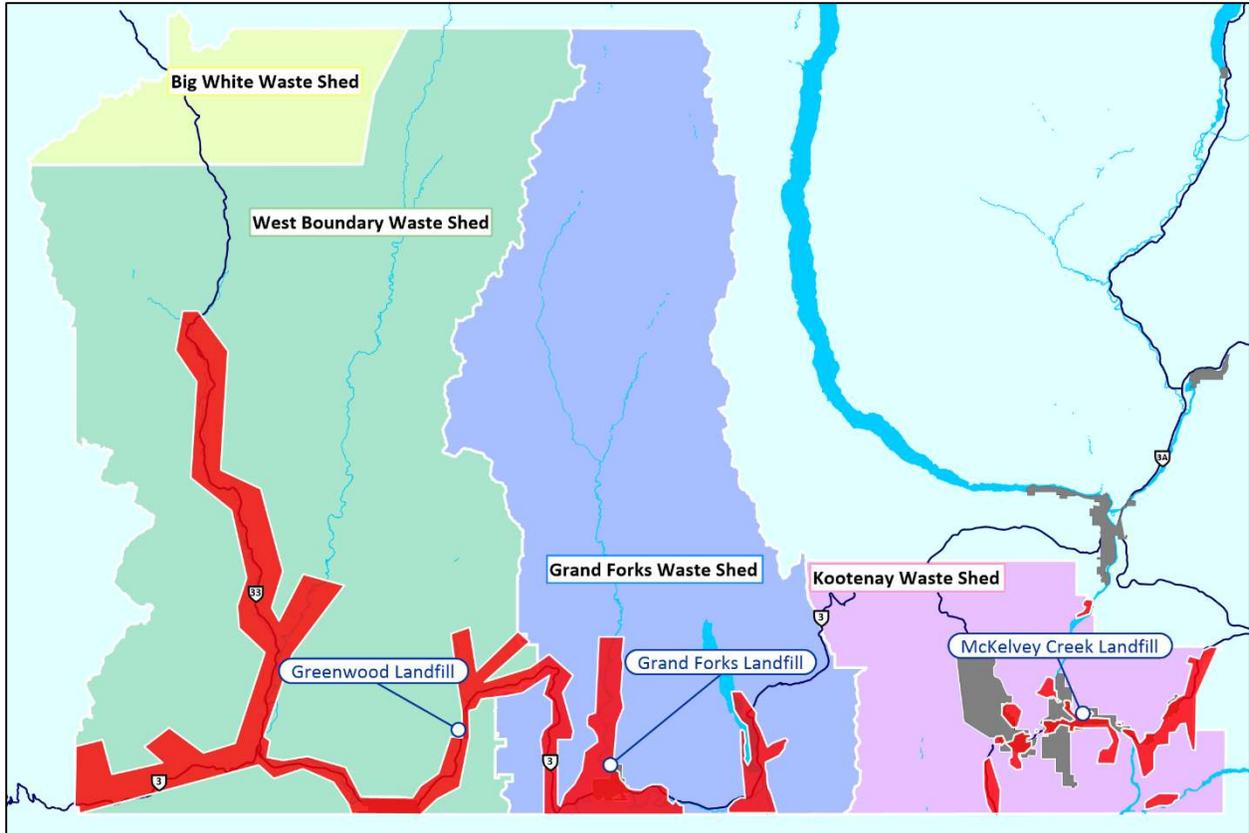
**Table 7: Garbage Collection Services in the RDKB**

Wasteshed	Location	Curbside Collection	Staffed Transfer Bin	Unstaffed Transfer Bin
Kootenay	Village of Fruitvale	RDKB – weekly	McKelvey Creek LF	
	City of Greenwood	RDKB – weekly	Greenwood LF	
	Village of Midway	RDKB – weekly	Greenwood LF	
	Village of Montrose	Village - Weekly	McKelvey Creek LF	
	City of Rosland	RDKB – weekly	McKelvey Creek LF	
	City of Trail	RDKB – weekly	McKelvey Creek LF	
	Village of Warfield	RDKB – weekly	McKelvey Creek LF	

Wasteshed	Location	Curbside Collection	Staffed Transfer Bin	Unstaffed Transfer Bin
	Genelle	RDKB – weekly	McKelvey Creek LF	
	Rivervale	RDKB – weekly	McKelvey Creek LF	
	Oasis	RDKB – weekly	McKelvey Creek LF	
	Casino	RDKB – weekly	McKelvey Creek LF	
	Blackjack	RDKB – weekly	McKelvey Creek LF	
	South Belt	RDKB – weekly	McKelvey Creek LF	
	Sheep Creek		McKelvey Creek LF	
	Paterson	RDKB – weekly	McKelvey Creek LF	
Grand Forks	Christina Lake	RDKB – weekly	Christina Lake TS	
	Christina Lake – Boat Access		Christina Lake TS Staffed Truck at Select Boat Ramps	
	Grand Forks	RDKB – weekly	Grand Forks LF	
Big White	Big White		Big White TS	
	Idabel Lake			Idabel Lake TS
West Boundary	Christian Valley			Christian Valley TS
	Beaverdell	RDKB – weekly	Beaverdell TS	
	Rock Creek	RDKB – weekly	Rock Creek TS	
	Westbridge	RDKB – weekly	Rock Creek TS	
	Bridesville	RDKB – weekly	Rock Creek TS	
	Mt. Baldy			Mt. Baldy TS

The RDKB has excellent coverage of the region for curbside garbage collection, with the majority of addresses served by the program. This coverage area is presented in Figure 5, which has been derived from readily available RecycleBC maps and information provided by the RDKB. In addition to the coverage presented in the image, a commercial and multi-unit collection service is provided in the Big White area.



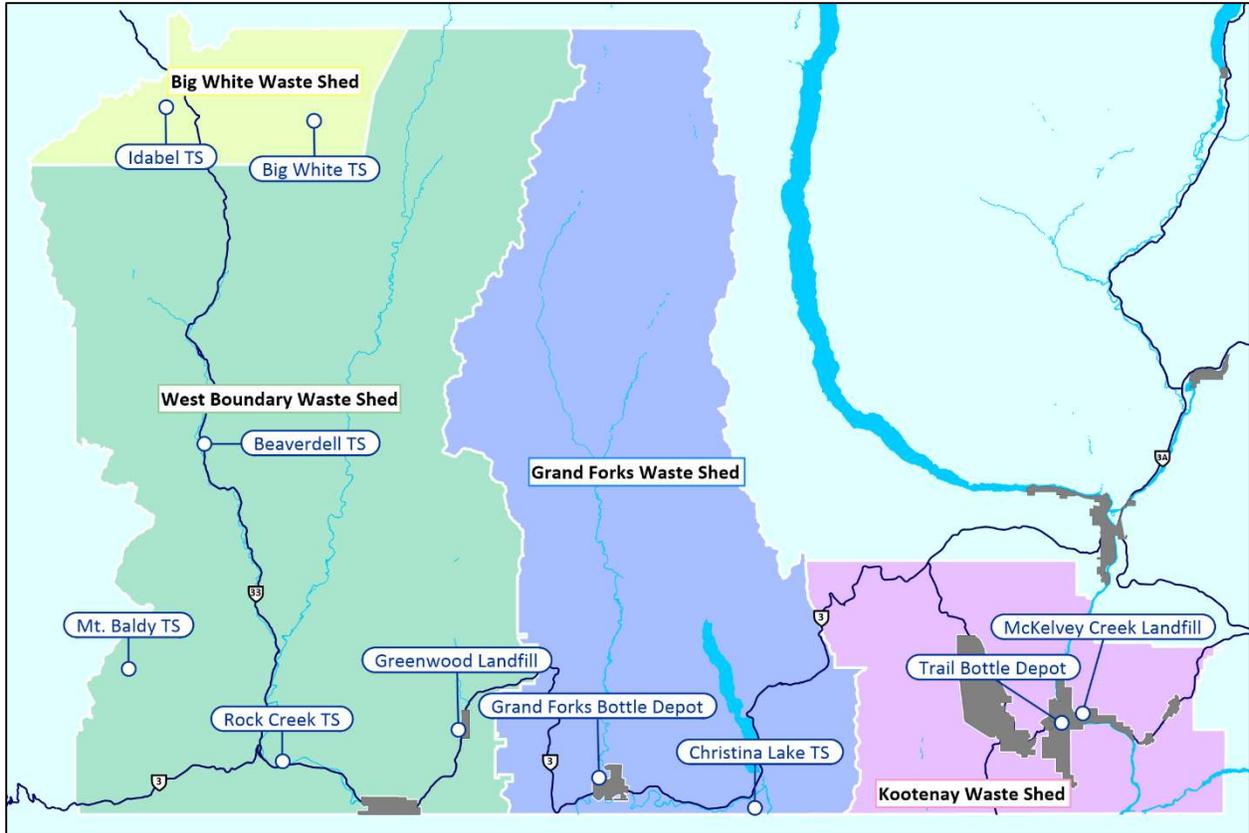


**Figure 5: Curbside Collection Areas Throughout the RDKB**

## 6. RECYCLING SERVICES

Curbside recycling of packaging and printed paper is offered throughout much of the region (approximately 95% of households) by RecycleBC along with the curbside garbage/organics collection programs offered by the RDKB and municipalities. <sup>[14]</sup> Recycling collected in the Big White waste shed is transferred to Kelowna, while the rest of the recycling collected in the region at RDKB facilities is transferred by contractor to appropriate facilities within the region. Recycling is collected once every two weeks and drop-off is available at the following facilities (shown in Figure 6):

- 1) Trail Bottle Depot
- 2) Grand Forks Bottle Depot
- 3) McKelvey Creek Landfill
- 4) Rock Creek Transfer Station
- 5) Christina Lake Transfer Station
- 6) Big White Transfer Station
- 7) Idabel Lake Transfer Station
- 8) Mount Baldy Transfer Station
- 9) Greenwood Landfill
- 10) Beaverdell Transfer Station



**Figure 6: Recycling Drop Off Facilities in the RDKB**

### 6.1 Extended Producer Responsibility Programs

In British Columbia, Extended Producer Responsibility (EPR) programs have been put in place as an industry-led approach, which include the responsibility for producers to collect items and facilitate their reuse or recycling. These programs are typically funded by charging the consumer a fee when the product is purchased, referred to as eco fees, container recycling fees, or environmental handling fees.<sup>[15]</sup> Table 8 shows the EPR programs and the take back locations within the RDKB for these products.

**Table 8: EPR Programs and Locations Within the RDKB**

Product Category	Program(s)	Take Back Locations in RDKB
Beverage Container	Return-It Beverage – non-alcoholic beverage containers, most glass alcohol containers	15 locations
	Brewers Recycled Container Collection Council – aluminum alcohol containers and refillable glass beer bottles	
Smoke and CO2 Alarms	ProductCare Recycling	3 locations

Product Category	Program(s)	Take Back Locations in RDKB
Thermostats	Thermostat Recovery Program – electrical and mechanical thermostats	4 locations
Medications	Health Products Stewardship Association	8 locations
Oil, Antifreeze, Oil Filters, Empty Oil and Antifreeze Containers	Interchange Recycling	7 locations
Paint and Household Hazardous Waste	Product Care Recycling	6 locations
Batteries	Canadian Battery Association – lead acid batteries	3 locations
	Call 2Recycle – household batteries	21 locations
Electronics	Outdoor Power Equipment Institute Canada (Electrical Outdoor Power Equipment)	2 locations
	Electronic Products Recycling Association	2 locations
	MARR (Major Appliance Recycling Roundtable) – large appliances	7 locations
Tires	Tire Stewardship BC	28 locations
Packaging and Printed Paper	Recycle BC	6 locations
Lighting Equipment	ProductCare Recycling – light bulbs, light tubes, and lighting fixtures	4 locations

In 2023 the waste composition study conducted by the RDKB included a concurrent study for the EPR characterization within the waste. This study found that the waste disposed of in the RDKB consists of approximately 15% EPR program items. The largest category of items within EPR program was the RecycleBC Packaging category, which includes both flexible and rigid plastic packaging.

## 7. ORGANIC WASTE COLLECTION SERVICES

The RDKB currently offers green bin (food waste) collection throughout the RDKB alongside the garbage collection program. This was most recently implemented in the eastern side of the District, with the greater Trail area receiving the service in 2023. Yard and garden waste is collected at most RDKB waste management facilities, and some of the municipalities offer seasonal curbside collection, as shown in Table 9. It should be noted that the municipal collection programs vary significantly from year to year and most of the yard and garden waste collected is through the drop-off locations at RDKB facilities.

**Table 9: Organics Collection Services Throughout the RDKB**

Wasteshed	Location	Yard & Garden Waste Collection	Green Bin and Kitchen Scrap Collection	Yard & Garden Waste Drop Off
Kootenay	Village of Fruitvale	Municipality – twice annually	RDKB – weekly	McKelvey Creek LF
	City of Greenwood		RDKB – weekly	Greenwood LF
	Village of Midway		RDKB – weekly	Greenwood LF
	Village of Montrose	Municipality - spring and fall	RDKB – weekly	McKelvey Creek LF
	City of Roseland		RDKB – weekly	McKelvey Creek LF
	City of Trail		RDKB – weekly	McKelvey Creek LF
	Village of Warfield	Municipality – Every two weeks, April to November	RDKB – weekly	McKelvey Creek LF
	Genelle		RDKB – weekly	McKelvey Creek LF
	Rivervale		RDKB – weekly	McKelvey Creek LF
	Oasis		RDKB – weekly	McKelvey Creek LF
	Casino		RDKB – weekly	McKelvey Creek LF
	Blackjack			McKelvey Creek LF
	South Belt			McKelvey Creek LF
	Sheep Creek			McKelvey Creek LF
	Paterson		RDKB – weekly	McKelvey Creek LF
Grand Forks	Christina Lake		RDKB – weekly	Christina Lake TS
	Christina Lake – Boat Access	Select drop off days at boat launches during the summer		Christina Lake TS
	Grand Forks	Municipality – Once per month, March to November	RDKB – weekly	Grand Forks LF
Big White	Big White			
	Idabel Lake			
West Boundary	Christian Valley			
	Beaverdell		RDKB – weekly	Beaverdell TS
	Rock Creek		RDKB – weekly	Rock Creek TS
	Westbridge		RDKB – weekly	Rock Creek TS
	Bridesville		RDKB – weekly	Rock Creek TS
	Mt. Baldy			

### 7.1 Composting in the RDKB

Since the 2005 SWMP, the RDKB has looked to organics diversion and composting as a priority to reduce the amount of waste landfilled. All food scraps and yard and garden waste collected in the



West Boundary region of the RDKB are brought to the compost facility at the Grand Forks Landfill, which composts these residential food scraps along with biosolids and yard and garden waste through a covered aerated static pile system. From the Kootenay sub-region, food waste has been collected since October of 2023 and is transferred to the Salmo composting facility in the Regional District of Central Kootenay.

In 2019 the RDKB completed an Organics Management Strategy, which considered several scenarios for organics diversion and found that upgrading the facility at the Grand Forks Landfill and transferring additional organic waste to the Regional District of Central Kootenay (RDCK) would offer an optimum balance of financial and social-environmental benefits. Upgrades to the Grand Forks facility were completed, and an extension to the existing transfer station at the McKelvey Creek Landfill was constructed to allow for the transfer of curbside collected food waste to the Salmo facility.

## 8. FINANCIAL CHANGES IN THE LAST DECADE

Since the 2005 Solid Waste Management Plan, the solid waste landscape within the RDKB has been changing based on new regulatory requirements and a cautious look to future requirements. This change has resulted in increased services which are accompanied by increased fees – both through taxation and tipping fees. Throughout the Regional District, solid waste services and infrastructure are funded through a combination of user fees, borrowing, reserves, grants, and taxation.

Variable user fees (tipping fees) are charged when residents deliver waste to an RDKB facility (transfer station or landfill) and are based on both the amount of waste and type of waste delivered. This means that the income from user fees is widely variable, depending on the higher priced material amounts (e.g., construction and demolition waste (C&D)) received and the success of diversion programs. Tipping fees have increased several times since the 2005 SWMP, with revisions made in 2009, 2012, 2016, and 2021, and are being evaluated in 2026. For major categories such as mixed waste, C&D, shingles, and organics these increases are represented in Table 10.

**Table 10: Historical Tipping Fees for Major Waste Categories in the RDKB Since 2009 (\$/tonne)**

Year	2004	2009	2012	2016	2021
Mixed Waste	60	80	95	110	120
Construction Demo/Land Clearing Waste	60	130	150	175	175
Tar & Gravel Roofing, Asphalt Shingles	30	35	50	60	60
Source Separated Organic Waste	n/a	n/a	40	40	55
Per Bag Charge (Three Bag Limit)	1	2	3	4	4

Projecting future costs for managing waste in the region is difficult in the current environment as there are several factors that contribute to their uncertainty, including:

- Increasing regulatory obligations and responsibilities of local governments in the delivery of waste management services.
  - 2009 – BC Landfill Gas Management Regulation creates additional administrative obligations, and requirements for landfill gas management at regulated landfills.



- 2016 – Updated Landfill Criteria create additional administrative and engineering obligations, and financial requirements for capital reserves.
  - For Landfills: 5-year DOCP updates, conformance reviews, environmental monitoring, annual reports, etc.
  - Planning: 10-year SWMP, 5-year SWMP effectiveness reviews, etc.
- 2025 – Federal regulations created additional obligations for landfill gas management, lowering the threshold for active gas management by approximately 40% from the provincial regulations.
- Increases in capital and construction related costs due to supply chain uncertainties, labour shortages, material cost escalations, tariffs, and increasing construction standards/requirements.
- Uncertainty around diversion program success, especially with respect to bulky waste such as demolition, land clearing, and construction waste, and the ‘low hanging fruit’ or higher percentage waste such as organics, and the effect this has on revenues, tipping fee projections, and landfill closure periods.

These uncertainties and increasing regulatory obligations create additional costs for the regional district, which must be managed through methods outlined in local government regulations such as taxation, user fees, reserves and grants). Increases over the last ten years in taxation and expenditures related to solid waste management within the RDKB are shown in Table 11.

**Table 11: Solid Waste Taxation and Expenditure Increases in the RDKB (2015-2024)**

Year	Taxation	Increase	Expenditures	Increase
2014	\$1,255,457	0%	\$4,883,750	
2015	\$1,255,457	0%	\$8,669,257	78%
2016	\$1,255,457	0%	\$4,899,683	-43%
2017	\$1,255,457	0%	\$5,476,084	12%
2018	\$1,255,457	0%	\$4,984,084	-9%
2019	\$1,310,420	4%	\$4,705,420	-6%
2020	\$1,402,108	7%	\$5,706,828	21%
2021	\$1,428,775	2%	\$7,799,779	37%
2022	\$1,566,955	10%	\$6,787,375	-13%
2023	\$1,920,810	23%	\$10,624,805	57%
2024	\$2,308,154	20%	\$7,938,522	-25%

The increased costs and expenditures reflect infrastructure and capital expenditures, several new programs and administrative requirements that have been implemented within the RDKB. This includes:

- 2012/2013 – The RDKB completed a financial assessment of closure and post-closure costs for landfills and was required to establish/contribute to a substantial reserve fund.
- 2013 – Grand Forks composting facility established.
- 2020 – Upgraded the Grand Forks Composting Facility through a CleanBC Organics Infrastructure Program grant.



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- 2022 – Expanded the green bin program to households in Greenwood. Total number of households in Boundary receiving green bin service approximately 5,900 households.
  - 2023 – Expanded the green bin program to approximately 8,300 households in the McKelvey Creek waste shed, supported by a grant through the CleanBC Organics Infrastructure Program.

## 9. OPPORTUNITIES AND GAPS

As part of this initial technical memo to give an overview of the solid waste management system within the RDKB, SHA has identified some preliminary areas, or gaps that if filled, may allow for greater waste diversion. The areas identified are described below.

**Organics:** To complement the current residential organics diversion program, the RDKB could look to implement an organics disposal ban that would require residents and businesses to separate organics from the regular waste stream. The Regional District of North Okanagan currently has such a policy to regulate commercial organics and the Regional District of Central Kootenay has also recently announced a program to start organic waste diversion from industrial, commercial, and institutional sources. Strategies of this nature would pair well with targeting commercial organics diversion, which is currently not collected throughout the RDKB.

**Plastic:** The 2023 waste composition study conducted for the RDKB identified that the largest EPR program category landfilled within the RDKB is the plastic packaging covered by RecycleBC including both flexible and rigid plastics. This could feasibly be reduced by targeting these products in a collection program. Currently the commercial sector is exempt from the Recycling Regulation with respect to packaging.

**Landfill Capacity Planning:** As landfill capacity at Grand Forks Landfill is expected to expire just beyond the timeline of the updated SWMP, it is important to undertake an expansion assessment of the site as soon as possible. Inclusion of this planning work in this SWMP update will ensure regulatory and funding processes can be met in a timely manner. If capacity cannot be found at current RDKB landfill facilities, planning for new residual waste management facilities will need to be undertaken. Siting new waste disposal facilities can take a significant amount of time and in the end may not be successful.



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## 10. LIMITATIONS

This report has been prepared by Sperling Hansen Associates (SHA) on behalf of the Regional District of Kootenay Boundary in accordance with generally accepted engineering practices to a level of care and skill normally exercised by other members of the engineering and science professions currently practicing under similar conditions in British Columbia, subject to the time limits and financial and physical constraints applicable to the services.

The report, which specifically includes all tables and figures, is based on an engineering analysis by SHA staff of data compiled during the course of the project. Except where specifically stated to the contrary, the information on which this study is based has been obtained from external sources. This external information has not been independently verified or otherwise examined by SHA to determine its accuracy and completeness. SHA has relied in good faith on this information and does not accept responsibility for any deficiency, misstatements or inaccuracies contained in the reports as a result of omissions, misinterpretation and/or fraudulent acts of the persons interviewed or contacted, or errors or omissions in the reviewed documentation.

The report is intended solely for the use of the Regional District of Kootenay Boundary. Any use which a third party makes of this report, or any reliance on, or decisions to be made based on it, are the responsibilities of such third parties. SHA does not accept any responsibility for other uses of the material contained herein nor for damages, if any, suffered by any third party because of decisions made or actions based on this report. Copying of this intellectual property for other purposes is not permitted.

The findings and conclusions of this report are valid only as of the date of this report. The interpretations presented in this report and the conclusions and recommendations that are drawn are based on information that was made available to SHA during the course of this project. Should additional new data become available in the future, Sperling Hansen Associates should be requested to re-evaluate the findings of this report and modify the conclusions and recommendations drawn, as required.

We trust the data and information presented in this report meet your expectations. Should you have any questions or require clarification regarding the methodology, assumptions, or findings, please do not hesitate to contact the undersigned.

Kind regards,

**SPERLING HANSEN ASSOCIATES**

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# ATTACHMENTS

Table 6 – Status of the RDKB 2005 SWMP

# APPENDICES

Appendix A – Diversion Statistics in the Regional District of Kootenay  
Boundary

## ATTACHMENT 1

### Table 6 – Status of the RDKB 2005 Solid Waste Management Plan

Table 6: Status of the RDKB 2005 SWMP

Category	Strategy #	Strategy Name	Description	Status					Comments
				In Progress	Not Started	Ongoing	Completed	Abandoned	
REDUCE	2.1.1	Education	The RDKB shall direct its staff to prepare, publish and disseminate educational material stressing the benefits and methods of reducing waste.			x			The RDKB produced a large amount of educational materials for the green bin implementation, and continually provides information to the public about waste reduction on their website.
			The RDKB shall make available to businesses and local government a manual on how to perform internal waste audits. The RDKB shall on request, provide staff to assist businesses and local government with internal waste audits. The RDKB shall on request, provide staff to govt in conducting waste audits. Methods to encourage and reward businesses and local govt for successful waste reduction will be instituted.			x			The RDKB has not conducted waste audits for specific businesses, but have reached out to commercial locations to assist in setting up organics diversion programs. In addition to these, the RDKB has created a 'zero waste event guide' and worked with 2026 BC Winter Games to provide guidance on waste avoidance.
	2.1.2	In-House Waste Reduction	The RDKB shall manage its in-house operations with the intent of minimizing waste.			x			The RDKB has now transitioned to digital files, and both offices (Grand Forks and Trail) have implemented waste diversion programs for containers, fibre, and beverage containers.
	2.1.3	Political Initiatives	The RDKB urges the Province to demonstrate leadership in the area of waste reduction. The RDKB shall allocate funds to establish and maintain contacts with Provincial and Federal government officials. The RDKB will support existing government programs and suggest new ones that may be of application and benefit to the RDKB. Failure on the part of the Provincial and Federal governments to implement effective waste reduction policies, guidelines or regulations will affect the ability of the RDKB to reach waste reduction goals.			x			The RDKB continues to support EPR programs and their expansion within the RDKB boundaries.
			The RDKB shall continue the liaison with the school districts and hospital districts to promote and encourage waste reduction.			x			School tours of RDKB solid waste facilities are provided upon request to promote waste reduction.
	2.1.4	Waste Reduction Initiatives	The RDKB may make funds available to private groups or individuals to promote or implement waste reduction initiatives and/or to educate the public on how to reduce waste.					x	The RDKB no longer has a fund set aside for private groups to promote waste reduction.
			The RDKB shall encourage the participation of community groups and individuals in waste reduction initiatives.			x			The RDKB keeps an updated list of local reuse and reselling groups on their website, and encourages a 'Trash to Treasure' week throughout the region. The RDKB has also provided presentations to the Rotary Club and recreation programs regarding RDKB waste diversion programs.
REUSE	2.2.1	Storage Facilities for Reusable Materials	The RDKB shall provide for the separation and storage of reusable materials at its regional residual management facilities.				x		The RDKB collects more than just waste at all but one of their solid waste facilities, including EPR program materials and organic waste. Previously, reuse 'share sheds' were included at sites but the program was discontinued.
			The RDKB will make reusable materials salvaged at its residual management facilities available to the general public and may charge a nominal fee.					x	Salvaging is not permitted at RDKB facilities for safety reasons.
	2.2.2		The RDKB shall provide information on reuse opportunities to all residents and shall encourage reuse.				x		The RDKB keeps an updated list of local reuse and reselling groups on their website, and continues to promote Trash to Treasure days in coordination with the RDCK. <a href="https://rdkb.com/Utilities-Waste/Garbage-Organics-and-Recycling/Waste-Reduction">https://rdkb.com/Utilities-Waste/Garbage-Organics-and-Recycling/Waste-Reduction</a>
	2.2.3	Political Initiatives	The RDKB shall encourage the initiatives of senior levels of government that promote reuse.			x			The RDKB provides comments to senior levels of government regarding expansion of EPR programs to include re-use of materials.
	2.2.4	Wood Waste Chipping	The RDKB shall separate and chip wood waste at its regional residual management facilities. The product may be made available for use by the public, municipalities, business and industry or composted for use as final cover in landfills.			x			Clean wood waste is chipped and is utilized for compost or for operational material within the RDKB landfills.
	2.2.5	Materials Exchanges	The RDKB shall encourage and support the use of the B.C. Materials Exchange, the Pacific Materials Exchange, the Industrial Materials Exchange and other similar organizations.		x				These material exchanges do not seem to be operating any longer.
RECYCLE	2.3.1	Residential Recycling	Until EPR programs are established by the Province of British Columbia, the RDKB shall provide recycling opportunities to all residents.			x			EPR programs continue to be established and expanded by the province, which are being encouraged by the RDKB. In addition to this, the RDKB collects propane tanks for recycling which are not currently covered under the EPR.
			The RDKB shall target marketable, recyclable materials such as paper fibres, plastic resins, glass, and metal containers in its residential recycling programs.			x			These are covered under EPR programs within RecycleBC, which is operated by the RDKB.

Table 6: Status of the RDKB 2005 SWMP

Category	Strategy #	Strategy Name	Description	Status					Comments
				In Progress	Not Started	Ongoing	Completed	Abandoned	
			The RDKB shall periodically review, which materials are collected, the scope of curbside collection programs, the number and location of drop-off points and the frequency of collection.			x			The RDKB has expanded the curbside collection programs, and is actively expanding services at transfer stations.
			The RDKB shall encourage implementation of curbside recycling programs wherever possible.			x			The RDKB conducts curbside collection even throughout more rural areas, something that is somewhat rare in British Columbia.
			The RDKB may provide recycling opportunities for specific products not covered by EPR programs if there is a demonstrated need.		x				The RDKB has not found that there is a demonstrated need for many non-EPR products other than mattresses, but these are not collected by the RDKB for recycling.
	2.3.2	Commercial Recycling	The RDKB shall not provide commercial recycling collection programs but shall make its processing facilities available to the commercial sector at no cost.				x		Recycling depots are free to use for recycling materials across the RDKB, with the exception of metals or non-EPR materials.
	2.3.3	Scrap Metal Recycling	Until EPR programs are established by the Province of British Columbia, the RDKB shall operate scrap metal recycling programs, and shall provide programs and/or facilities to encourage the proper recovery of Ozone Depleting Substances.			x			The RDKB collects scrap metal at its solid waste facilities for recycling, and encourages the EPR program for small and large appliances.
	2.3.4	Administration	The RDKB shall operate its recycling programs utilizing the most cost effective methods as determined by the Board of Directors. The operation will be monitored by RDKB administrative staff.			x			RDKB staff update their operations at their solid waste management facilities regularly (recently Big White).
			The RDKB shall encourage member municipalities to adopt recycled product procurement policies similar to that of the RDKB.		x				While not directly encouraging, the member municipalities can use RDKB policies as guidelines for their own.
			The RDKB supports the cooperative marketing of recyclables with other Regional Districts, provided such arrangements are cost effective.				x		Recyclables from the Big White waste shed are brought to recycling facilities in Kelowna.
	2.3.5	Education	The RDKB shall develop and disseminate educational and promotional material designed to encourage participation in recycling and composting programs.				x		Composting and recycling information is readily available on the RDKB website.
	2.3.6	EPR	The RDKB believes that all non organic waste should be subject to Extended Producer Responsibility Programs and that all product waste should be recovered at no cost to local governments.			x			The RDKB continues to offer EPR programs at no cost to residents or local governments. Propane tanks are the only non-EPR item collected by the RDKB for recycling.
			The RDKB shall support, encourage and promote the operation and expansion of Extended Producer Responsibility Programs. The RDKB believes that no cost should be incurred by local government in the implementation of EPR programs.			x			The RDKB continues to promote and support EPR programs and operates recycling collection facilities funded by RecycleBC.
			The RDKB may provide space at its residual management facilities for the storage of materials included in Extended Producer Responsibility Programs provided the private sector does not or cannot provide adequate facilities.			x			The RDKB provides space for EPR programs at their solid waste management facilities for those EPR products that are not accepted at private sector locations.
			The RDKB shall promote adoption of the "Extended Producer Responsibility Model" to ensure that the true costs of waste management are allocated appropriately. The RDKB believes that the industries which generate waste must internalize the cost of recycling programs in the cost of their products and either pay for operating municipally delivered programs or operate them themselves.			x			As mentioned previously, the RDKB continues to support and promote the diversion of EPR products from the waste stream through education/promotion, space at RDKB facilities, and agreements with Stewards.
	2.3.7	Composting	The RDKB shall encourage backyard composting. If a need is identified for further backyard composters in the Region, the RDKB may make these available to its residents at cost.					x	Backyard composting is still encouraged but is no longer financially supported. To provide composting facilities, the RDKB has implemented a centralized composting facility at the Grand Forks Landfill along with curbside collection programs.
			The RDKB will chip and/or compost all yard and garden waste at its McKelvey Creek and Grand Forks Landfill sites and compost all non-woody yard and garden waste at its other landfills or staffed transfer stations. When economically feasible the wood chipping program may be expanded to other RDKB residual management facilities.			x			Wood is chipped at all RDKB facilities that receive the material. Treated and painted wood is used as landfill cover and operational material, while clean brush is composted.
			The RDKB will pursue centralized composting if it is economically feasible and will monitor its effectiveness if implemented. The RDKB may also consult with industry when investigating composting potential.				x		The RDKB began centralized composting in 2012 at the Grand Forks Landfill through a pilot program, and has since established and expanded the facility to produce Class A compost. In 2019 the RDKB contracted a consultant to complete an organics management strategy for the region.
			The RDKB will separate all construction/demolition/renovation wood waste for chipping and composting with sewage sludge at the McKelvey Creek and Grand Forks Landfill sites.	x					This wood is combined with septage sludge to produce a material better suited for landfill cover.
			If and when centralized composting is accepted by the Board for implementation, the RDKB may establish facilities as proposed in the Organics Recovery Study of 2005. Such facilities would be operated by the most cost effective means as determined by the Board of Directors of the Regional District of Kootenay Boundary.				x		The RDKB has moved on from the 2005 Organics Recovery Study and is now working under the 2019 Organics Management Strategy.

Table 6: Status of the RDKB 2005 SWMP

Category	Strategy #	Strategy Name	Description	Status					Comments	
				In Progress	Not Started	Ongoing	Completed	Abandoned		
RECOVER	2.4		The RDKB shall consider and review co-generation [energy] opportunities		x				Regulations in BC and the small quantity of MSW generated have made waste-to-energy options not feasible for the RDKB.	
RESIDUALS	2.5.1	Landfills	The RDKB shall operate all it's regional landfills in accordance with BC Environment's Landfill Criteria for Municipal Solid Waste			x			The RDKB conducted landfill conformance reviews in 2025 for the 3 facilities to determine what steps are required to continue moving towards this goal.	
			The RDKB shall periodically review the bylaw regulating the use of its residual management facilities and setting penalties for the contravention of said bylaw.			x			The Solid Waste Management Bylaw No. 1836 was last updated in 2020.	
			The RDKB shall require all operators of it's landfills to be certified.			x			All landfill operators have taken the required certifications, and many of the landfill staff have the Manager of Landfill Operations (MLO) designation.	
			The RDKB shall operate three Regional Landfills; at McKelvey Creek (for the Greater Trail Area), at Grand Forks (for Grand Forks, and Electoral Areas C & D), and at West Boundary (for Greenwood, Midway, and Electoral Area E).					x		Since the 2005 SWMP, the RDKB has closed all other landfills within the region and continued to operate these three landfills.
			The RDKB shall convert to transfer station, or require to be closed, the landfills at Rock Creek, Midway and Christina Lake, when operationally mandatory or financially feasible, as originally detailed in the Solid Waste Management Plan of 1995.	x						2 of these landfills have been closed and are now operated as transfer stations to bring waste to one of the three regional landfills. The Midway Landfill is still operated by the Village of Midway, but the exact status of operation is unknown due to limited information.
			The RDKB shall only accept waste that originates within the RDKB at its residual management facilities with the exception of contaminated soils that meet the criteria established by the Board. The McKelvey Creek Regional Landfill will serve only the Greater Trail Area, the Grand Forks Regional Landfill will serve only Grand Forks, and Electoral Areas C and D; the West Boundary Regional Landfill will serve only Greenwood, Midway, and Electoral Area E.					x		Contaminated soil generated outside the RDKB is only accepted upon approval of the General Manager of Environmental Services. The Landfills currently serve the areas as outlined in the 2005 SWMP.
			The RDKB shall maintain and operate septic sludge disposal facilities at Grand Forks, Beaverdell, and Rock Creek, and may consider establishing a facility at Christina Lake.					x		Septage pits are permitted and operated at Grand Forks, Beaverdell, Rock Creek, and the West Boundary (Greenwood) Landfill.
			The RDKB shall not accept special wastes, as defined by the Environmental Management act, except for those wastes for which handling and landfilling procedures are established in BC Environment's Landfill Criteria for Municipal Solid Waste.						x	Special waste is prohibited under RDKB Bylaw No. 1836
			The RDKB shall not accept biomedical waste at its residual management facilities, unless such wastes have been decontaminated and are in compliance with the "Guidelines for the Management of Biomedical Waste in Canada"						x	Biomedical waste is prohibited under RDKB Bylaw No. 1836
			The RDKB may prohibit from disposal at its residual management facilities such materials for which alternative management facilities exist and which may, from time to time, be designated reusable, recyclable, and/or compostable.						x	Recyclable materials are banned from disposal at RDKB facilities under Bylaw No. 1836
			The RDKB shall maintain a schedule of tipping fees.						x	This schedule of tipping fees is kept under Bylaw No. 1836 and is regularly updated.
			The RDKB shall develop and amend from time to time operational plans for the Grand Forks landfill site, the McKelvey Creek landfill site and the West Boundary landfill site.						x	The DOCPs for the regional landfills are updated every 4 years as required under the 2016 Landfill Criteria for Municipal Solid Waste. West Boundary has a fairly recent DOCP, however the other two sites are in need of updated Plans in the near future.
			The RDKB shall maintain space at its staffed waste management facilities for the drop-off and recycling collection of white goods, tires, and wood waste unless sufficient alternative facilities exist locally. The RDKB shall maintain space at the Grand Forks landfill site and the West Boundary landfill site for the drop off and collection of vehicle bodies for recycling, unless alternative facilities exist locally.						x	White goods and wood waste are collected at RDKB facilities. Auto hulks are not accepted at RDKB facilities, but those materials are directed to be dropped off to an auto wrecking facility for recycling. Tires are not accepted at RDKB facilities, but are accepted by many private retailers under the EPR program with Tire Stewardship BC program.
			The RDKB shall schedule the operation of its residual management facilities to minimize operational costs, while providing an acceptable level of service.						x	Facilities are operated based on the number of people serviced by the facility, but hours of the facilities may need to be updated.
			The RDKB shall monitor the closed landfill sites at Rock Creek, Beaverdell, Midway, and Christina Lake in compliance with BC Environment's Landfill Criteria for Municipal Solid Waste and/or the Regional Manager's directives	x					Rock Creek and Beaverdell have been closed and are covered by environmental monitoring programs. Midway Landfill is still operated by the Village of Midway under permit PR-02985 and the overall status is unknown, with limited available information. Christina Lake was closed in 2005, but it is unknown if still monitored.	

Table 6: Status of the RDKB 2005 SWMP

Category	Strategy #	Strategy Name	Description	Status					Comments
				In Progress	Not Started	Ongoing	Completed	Abandoned	
	2.5.2	Transfer Stations	Prior to closing landfills, the RDKB shall develop transfer stations and/or transportation systems to service the affected areas.				x		Transfer Station facilities have been developed throughout the RDKB to service the population.
			The RDKB shall upgrade existing transfer stations to harmonize with any new transfer systems.				x		The RDKB has reviewed which transfer stations should be satellite depots for recyclables and which should be primary depots. MSW is transferred to the three regional landfills (except from Big White and Idabel that goes to Kelowna) as has been done for several years.
			The RDKB shall design and construct transfer stations to minimize conflicts with wildlife and to provide convenient service to users.			x			As much as possible, the RDKB has and continues to construct transfer stations to minimize these conflicts.
			The RDKB shall continue to transport waste from the Big White Transfer Station and locations within the resort for disposal in Kelowna.				x		Waste from Idabel TS and Big White TS continue to be disposed of at Glenmore Landfill in Kelowna.
			The RDKB may consider restricting access to, and staffing transfer stations.			x			4 of 7 transfer stations are staffed, with Mt. Baldy, Idabel Lake, and Christian Valley transfer stations remaining unattended.
	2.5.3	Closure Plans	The RDKB shall consult with the residents through public meetings in affected communities regarding the contents of Closure Plans for landfills.				x		These Closure Plans have been completed and the landfills closed, except for Midway about which no information was available. It is understood that public consultation was undertaken at the time the other landfills were closed.
	2.5.4	Extended Producer Responsibility (EPR)	The RDKB will support the establishment and operation of Extended Producer Responsibility programs.			x			The RDKB has taken continuous measures to support and expand the EPR programs within the region.
			The RDKB shall promote adoption of the "Extended Producer Responsibility Model" to ensure that the true costs of waste disposal are internalized in the cost of products and that municipalities receive proportional funding from industry for the operation of residual management facilities.			x			The RDKB operates EPR collection and processing facilities which costs are offset by the EPR program.
	2.5.5	Financial Assistance	Following approval of the 1995 SWMP, RDKB embarked on an expensive program to modernize their waste management system with the understanding that financial assistance would be available from the Province. In 1996 the provincial government cancelled all financial assistance programs for SWMP implementation. The 2005 SWMP insisted that the Province establish new funding programs to assist Regional Districts in taking the following actions to improve the resource recovery system. The Province may choose to do this by supporting the inclusion of types of projects in the Green Infrastructure funding program.				x		The province provides funding for green infrastructure through the Green Infrastructure Program.
	2.5.6	Education	The RDKB shall provide information to all users regarding the operation of landfills and transfer stations.			x			Information for facility hours and the materials accepted at each facility are provided on the RDKB website.

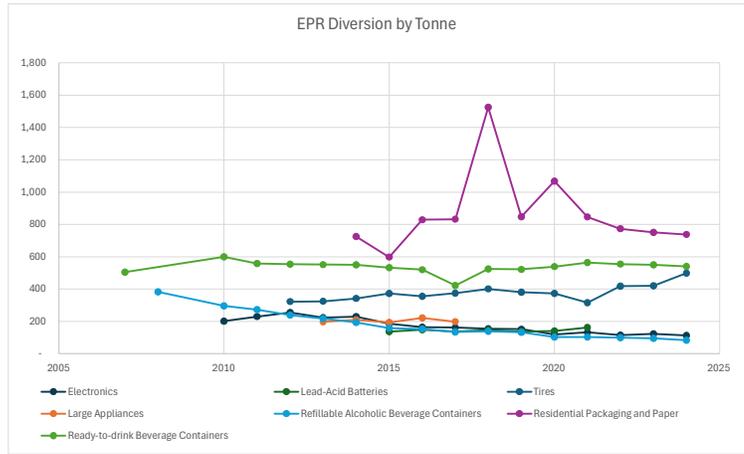
## APPENDIX A

### **Diversion Statistics in the Regional District of Kootenay Boundary**

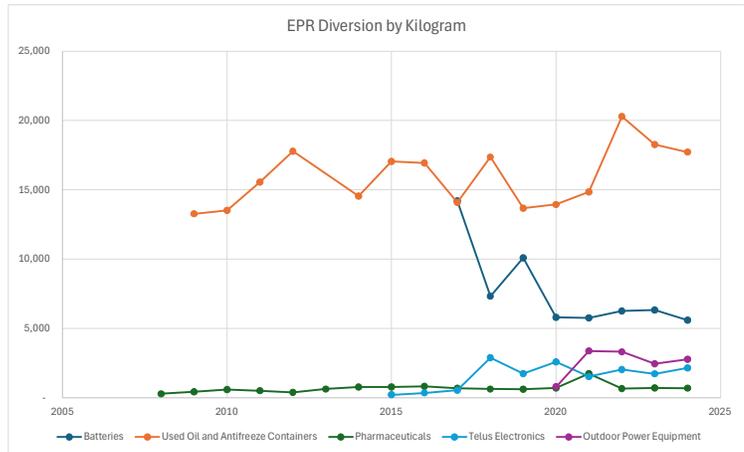


### Diversion Programs Within the Regional District of Kootenay Boundary

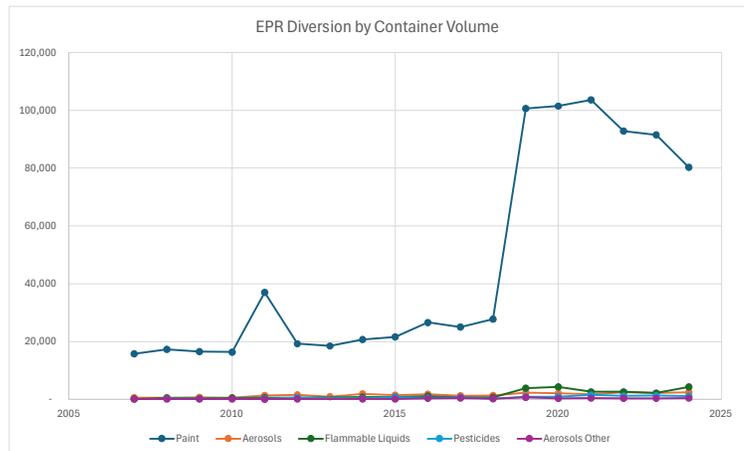
	Tires	Large Appliances	Lead-Acid Batteries	Refillable Alcoholic Beverage Containers	Residential Packaging and Paper	Ready-to-Drink Beverage Containers	Electronics
	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
2007						504	
2008				383			
2009							
2010				296		599	201
2011				273		559	230
2012	323			238		554	255
2013	324	198		217		551	223
2014	342	209		193	725	550	230
2015	373	193	136	159	598	533	187
2016	355	222	148	153	829	519	164
2017	374	199	136	134	833	422	161
2018	402		147	138	1,525	524	155
2019	380		136	132	847	522	152
2020	373		142	102	1,068	539	119
2021	316		163	103	846	564	132
2022	418			99	773	555	115
2023	420			95	750	549	123
2024	498			83	738	540	112



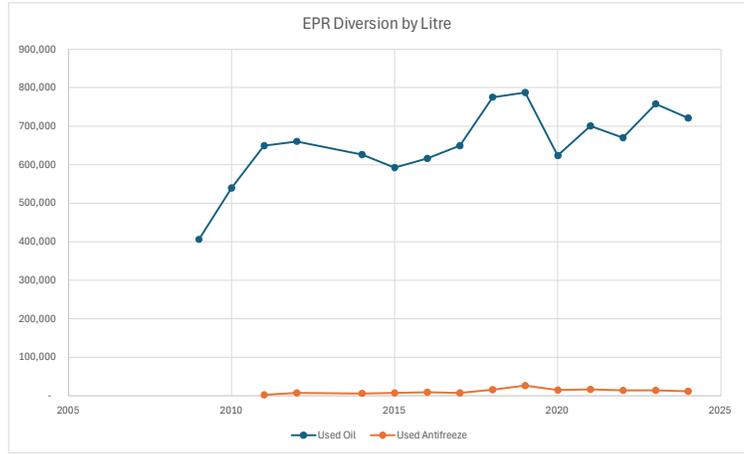
	Batteries	Used Oil and Antifreeze Containers	Pharmaceuticals	Telus Electronics	Outdoor Power Equipment
	kg	kg	kg	kg	kg
2007					
2008			287		
2009		13,268	425		
2010		13,518	589		
2011		15,565	506		
2012		17,778	395		
2013			631		
2014		14,543	771		
2015		17,047	778	215	
2016		16,945	829	346	
2017	14,204	14,090	691	546	
2018	7,329	17,359	630	2,896	
2019	10,090	13,672	624	1,738	
2020	5,796	13,941	703	2,580	788
2021	5,761	14,853	1,744	1,522	3,380
2022	6,262	20,295	663	2,035	3,314
2023	6,327	18,273	719	1,735	2,457
2024	5,604	17,724	694	2,148	2,775



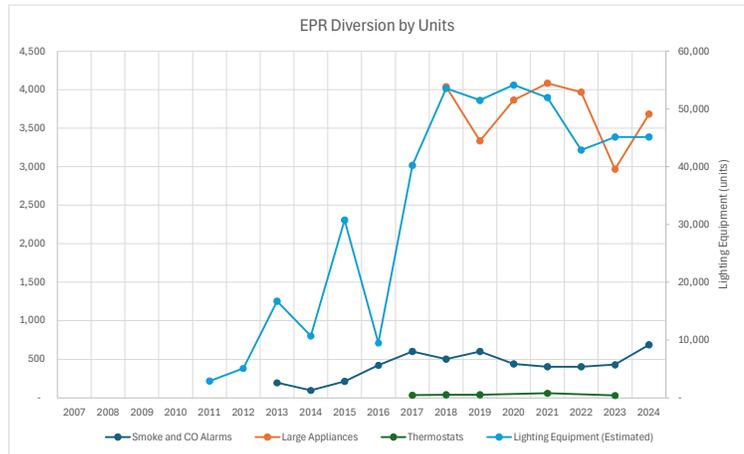
	Paint	Aerosols	Flammable Liquids	Pesticides	Aerosols Other
	L	L	L	L	L
2007	15,709	557	111		100
2008	17,269	590	446	334	111
2009	16,489	668	334	223	145
2010	16,377	557	446		111
2011	36,988	1,337	557	223	67
2012	19,274	1,560	557	557	111
2013	18,494	925			
2014	20,722	1,894	780	334	111
2015	21,614	1,448	780	780	111
2016	26,627	1,783	1,114	557	379
2017	25,067	1,226	668	668	446
2018	27,741	1,337	668	195	251
2019	100,656	2,275	3,888	864	656
2020	101,520	2,056	4,320	864	306
2021	103,680	1,706	2,592	1,512	438
2022	92,880	2,363	2,592	1,188	350
2023	91,584	2,188	2,160	1,296	350
2024	80,352	2,406	4,320	1,080	394



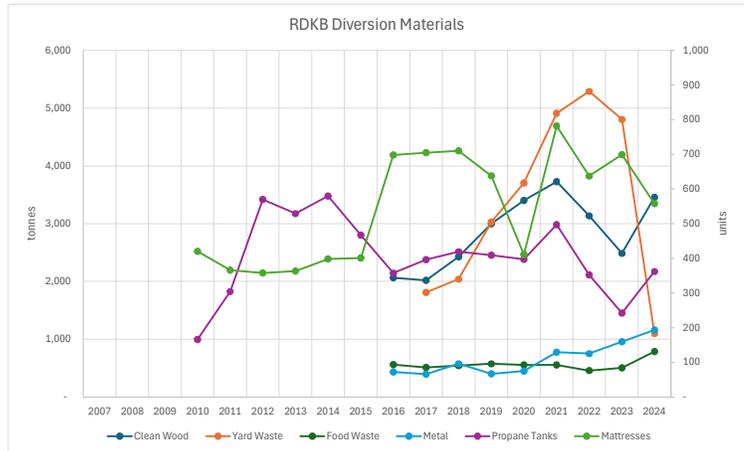
	Used Oil	Used Antifreeze
2007		
2008		
2009	406,199	
2010	539,483	
2011	648,973	2,503
2012	660,567	7,566
2013		
2014	626,297	6,254
2015	592,425	7,416
2016	615,977	9,291
2017	649,072	7,384
2018	775,228	16,101
2019	787,292	26,641
2020	623,364	14,800
2021	700,732	16,304
2022	669,995	13,899
2023	757,821	14,088
2024	720,800	11,726



	Smoke and CO Alarms	Large Appliances	Thermostats	Lighting Equipment (Estimated)
	units	units	units	units
2007				
2008				
2009				
2010				
2011				2,910
2012				5,081
2013	196			16,736
2014	96			10,703
2015	215			30,776
2016	423			9,492
2017	602		33	40,230
2018	504	4,039	40	53,565
2019	602	3,337	40	51,501
2020	440	3,866		54,146
2021	405	4,085	60	51,989
2022	405	3,967		42,892
2023	430	2,969	30	45,144
2024	688	3,683		45,144



	Clean Wood	Yard Waste	Food Waste	Metal	Propane Tanks	Mattresses
	Tonne	Tonne	Tonne	Tonne	Units	Units
2007						
2008						
2009						
2010					166	420
2011					304	366
2012					570	358
2013					529	363
2014					580	398
2015					467	401
2016	2,065		560	430	357	698
2017	2,020	1,809	513	394	396	705
2018	2,424	2,040	540	574	419	710
2019	2,999	3,028	574	401	409	638
2020	3,405	3,705	555	448	397	411
2021	3,728	4,911	557	775	497	782
2022	3,135	5,289	457	750	352	637
2023	2,485	4,805	503	954	242	699
2024	3,457	1,097	786	1,159	362	558



Notes

- Clean wood is chipped and used as landfill cover or in the Grand Forks composting operations
- Yard waste is chipped and used beneficially on site. 2024 was the first year that loads were weighed with a scale, prior to that loads were visually estimated by landfill attendants.
- Mattress data is missing from McKelvey Creek site. Mattresses are landfilled, but this information is provided as an indicator of potential EPR diversion.