



Regional District of Central Kootenay
JOINT RESOURCE RECOVERY COMMITTEE
Open Meeting Agenda

Date: Wednesday, November 13, 2024
Time: 1:00 pm
Location: Hybrid Model - In-person and Remote

Directors will have the opportunity to participate in the meeting electronically. Proceedings are open to the public.

Pages

1. ZOOM REMOTE MEETING INFO

To promote openness, transparency and provide accessibility to the public we provide the ability to attend all RDCK meetings in-person or remote.

Meeting Time:

1:00 pm PST

2:00 pm MST

Join by Video:

<https://rdck-bc-ca.zoom.us/j/94759285589?pwd=3ClkL3ID6dW6v2LoC9pHDFVxk9p2yy.1&from=addon>

Join by Phone:

- +1 778 907 2071 Canada
- 833 958 1164 Canada Toll-free

Meeting ID: 947 5928 5589

Passcode: 249651

2. CALL TO ORDER & WELCOME

Chair Newell to call the meeting to order at _____ p.m.

2.1 Traditional Lands Acknowledgement Statement

We acknowledge and respect the Indigenous peoples within whose

traditional lands we are meeting today.

2.2 Adoption of the Agenda

RECOMMENDATION:

The agenda for the November 13, 2024 Joint Resource Recovery meeting be adopted as circulated.

2.3 Receipt of Minutes

5 - 14

The October 16, 2024 Joint Resource Recovery minutes, have been received.

3. TIPPING FEE ASSESSMENT & SYSTEM EFFICENCY STUDY

15 - 80

[All Areas]

The October 31, 2024 Committee Report from Heidi Bench, Projects Advisor presenting a summary of the results of the Resource Recovery System Efficiency Study and recommending moving forward with the closure of Riondel, Kokanee Park Marina, and Winlaw Recycling Depots, has been received.

RECOMMENDATION 1: Central Sub-Region

That the Board authorize Staff to not extend the existing lease agreement with Kokanee Creek Marine Ltd. for the lease of lands and operations associated with the Kokanee Park Marina Recycling Depot and permanently close the Kokanee Creek Marina Recycling Recycling Depot effective December 31, 2024.

RECOMMENDATION 2: East Sub-Region

That the Board authorize staff to plan the permanent closures of Riondel Recycling Depot in 2025.

RECOMMENDATION 3: West Sub-Region

That the Board authorize staff to plan the permanent closure of Winlaw Recycling Depot in 2025.

4. RECYCLE BC - NEW STATEMENT OF WORK AND MASTER SERVICE AGREEMENT

81 - 141

[All Areas]

The November 6, 2024 Committee Report from Akane Norimatsu, Resource Recovery Technician sharing key changes in the new Master Service Agreement and Scope of Work for Recycle BC, and seeking feedback and direction on these new agreements, has been received.

RECOMMENDATION:

That the Board approve the RDCK enter into a new Master Service Agreement and Scope of Work with MMBC Recycling Inc. for the period January 1, 2025 to December 31, 2029 for hosting and operating residential recycling depots, and that the Chair and Corporate Officer be authorized to sign the necessary documents.

5. HB REMEDIATION AND CLOSURE PROJECT - SHORT TERM BORROWING

142 - 146

AUTHORIZATION
[Central Sub-Region]

The October 28, 2024 Committee Report from Alayne Hamilton, HB Tailings Facility Technologist outlining a request for a short-term borrowing authorization for the 2024 costs for the HB Tailings Facility post-closure monitoring and assessment works, as outlined in the 2024 - 2028 Financial Plan, has been received.

RECOMMENDATION:

That the Board of the Regional District of Central Kootenay authorizes up to \$449,827 be borrowed, under Section 403 of the Local Government Act, from the Municipal Finance Authority, for the purpose of HB Remediation and Closure Project post-closure monitoring and assessment costs; and that the loan be repaid within 5 years, with no rights of renewal;

AND FURTHER, that the repayment costs be paid from Service S187 Central Sub-Region Resource Recovery.

6. STAFF REPORTS

6.1 Regulatory Reporting Requirements
[All Areas]

147 - 150

Amy Wilson, Resource Recovery Manager will provide a verbal report on the regulatory reporting requirements for resource recovery services. The Regulatory Reporting Requirement Schedule has been received.

7. CORRESPONDENCE FOR RECEIPT

151 - 157

- Response letter from the Ministry of Environment and Climate Change Strategy regarding Extended Producer Responsibility (EPR) programs in the RDCK dated October 22, 2024.
- Letter from RDCK to Ministry of Environment and Climate Change Strategy regarding Extended Producer Responsibility (EPR) programs dated August 20, 2024.

8. 2025 COMMITTEE MEETING SCHEDULE

The 2025 Joint Resource Recovery Committee meeting schedule is proposed as follows:

- January 15, 2025
- February 19, 2025
- March 19, 2025
- April 16, 2025
- May 14, 2025
- June 18, 2025

- July 16, 2025
- August 20, 2025
- September 17, 2025
- October 15, 2025
- November 12, 2025
- December 10, 2025

9. PUBLIC TIME

The Chair will call for questions from the public and members of the media at _____ p.m.

10. IN CAMERA

10.1 MEETING CLOSED TO THE PUBLIC

The Open meeting will be adjourned after In-Camera without reconvening back into the open session unless there is business that needs to be addressed.

RECOMMENDATION:

In the opinion of the Board and, in accordance with Section 90 of the *Community Charter* the public interest so requires that persons other than DIRECTORS, ALTERNATE DIRECTORS, DELEGATIONS AND STAFF be excluded from the meeting; AND FURTHER, in accordance with Section 90 of the *Community Charter*, the meeting is to be closed on the basis identified in the following Subsections:

90 (1)A part of a council meeting may be closed to the public if the subject matter being considered relates to or is one or more of the following:

- (c)labour relations or other employee relations;

10.2 RECESS OF OPEN MEETING

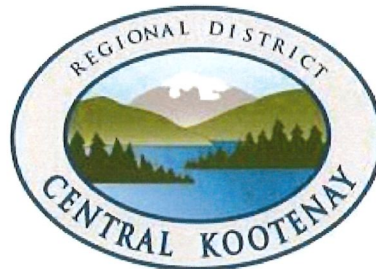
RECOMMENDATION:

The Open meeting be recessed at _____ p.m. in order to conduct the *In Camera* meeting.

11. ADJOURNMENT

RECOMMENDATION:

The Joint Resource Recovery Committee meeting adjourn at _____ p.m.



Regional District of Central Kootenay JOINT RESOURCE RECOVERY COMMITTEE MEETING Open Meeting Minutes

A Joint Resource Recovery Committee meeting was held on Wednesday, October 16, 2024
1:00 pm through a hybrid meeting model.

ELECTED OFFICIALS	Director G. Jackman	Electoral Area A	In-person
PRESENT	Director R. Tierney	Electoral Area B	In-person
	Director K. Vandenberghe	Electoral Area C	In-person
	Director A. Watson	Electoral Area D	In-person
	Director C. Graham	Electoral Area E	
	Director T. Newell	Electoral Area F	In-person
	Director H. Cunningham	Electoral Area G	In-person
	Director W. Popoff	Electoral Area H (Chair)	In-person
	Director A. Davidoff	Electoral Area I	
	Director H. Hanegraaf	Electoral Area J	
	Director T. Weatherhead	Electoral Area K	In-person
	Alt. Director B. Bogle	City of Castlegar	
	Director. A. DeBoon	Town of Creston	
	Director S. Hewat	Village of Kaslo	In-person
	Director T. Zeleznik	Village of Nakusp	
	Director K. Page	City of Nelson	In-person
	Alt. Director J. Fyke	Village of New Denver	
	Director D. Lockwood	Village of Salmo	In-person
	Director L. Main	Village of Silverton	
	Director E. Buller	Village of Slocan	
STAFF PRESENT	S. Horn	Corporate Administrative Officer	
	Y. Malloff	General Manager – Finance, ED, IT	
	A. Wilson	Resource Recovery Manager	
	A. Hamilton	Environmental Projects Lead	
	H. Bench	Resource Recovery Projects Advisor	
	N. Schilman	Environmental Technologist	
	A. Norimatsu	Resource Recovery Technician	
	L. Brown	Resource Recovery Operations Supervisor	
	M. Braithwaite	Purchasing Agent	
	E. Clark	Meeting Coordinator	

1. ZOOM REMOTE MEETING INFO

Join by Meeting Link:

<https://rdck-bcca.zoom.us/j/94912516710?pwd=q1P0nRbHDzk5d5kbNalkGo4IGWyyymO.1&from=addon>

Meeting ID: 949 1251 6710

Passcode: 384772

Join by Phone:

+1 778 907 2071 Canada

833 703 8985 Canada Toll-free

In-Person Meeting Location for Hybrid Meeting Model

The following location was determined to hold the in-person meetings for the Joint Resource Recovery Committee:

Location Name: RDCK Board Room

Location Address: 202 Lakeside Drive, Nelson, BC

2. CALL TO ORDER & WELCOME

Chair Popoff called the meeting to order at 1:00 pm.

2.1 Traditional Lands Acknowledgement Statement

We acknowledge and respect the indigenous peoples within whose traditional lands we are meeting today.

2.2 Adoption of the Agenda

Moved and seconded,
And resolved:

The Agenda for the October 16, 2024 Joint Resource Recovery Committee meeting be adopted as circulated.

Carried

2.3 Receipt of Minutes

The August 14, 2024 Joint Resource Recovery Committee Minutes have been received.

3. PURCHASE OF LOADER FOR CENTRAL SUB-REGION

[Central Sub-Region]

The October 11, 2024 Committee Report from Larry Brown, Resource Recovery Operations Supervisor seeking direction to purchase a new rubber tire wheel loader to be deployed within the Central Sub-region, has been received.

Moved and seconded,
And resolved that it be **recommended** to the Board:

That the Board authorize staff to purchase a Hyundai HL940A loader from Woodland Equipment Inc. up to a total cost of \$265,790 (excluding taxes);

AND FURTHER, that the Chair and Corporate Officer be authorize to sign the necessary documents;

AND FURTHER, that the costs be paid from Service S187 Central Waste.

Carried

4. NAKUSP LANDFILL HYDROGEOLOGY & HYDROLOGY CHARACTERIZATION REPORT
[West Sub-Region]

The September 27, 2024 Committee Report from Heidi Bench, Resource Recovery Projects Advisor presenting the findings of the Hydrogeology and Hydrology Characterization Report for the Nakusp Landfill, has been received for information.

Direction to Staff – That staff bring back answers to the questions posed by Directors, that will be sent via email, in the form of a verbal report at the November 13, 2024 JRRC meeting.

5. NAKUSP CLOSURE PLAN – CONSULTING CONTRACT INSURANCE MODIFICATION
[West Sub-Region]

The October 2, 2024 Committee Report from Nathan Schilman, Environmental Technologist proposing an insurance modification for Sperling Hansen Associates Inc. for the Nakusp Closure Planning Project, has been received.

DIRECTOR PRESENT Alternate Director Fyke joined the meeting at 1:53 pm.

DIRECTOR ABSENT Director Cunningham left the meeting at 2:08 pm.

Moved and seconded,
And resolved that it be **recommended** to the Board:

That the Board accept the insurance modification to the Professional Liability (Errors and Omissions) coverage for Sperling Hansen Associates Inc. for the Nakusp Landfill Closure Planning Project to reduce the in aggregate amount from \$10,000,000 to \$5,000,000.

Carried

6. CRESTON LANDFILL & COMPOST FACILITY OPERATING CONTRACTS
[East Sub-Region]

The September 25, 2024 Committee Report from Nathan Schilman, Environmental Technologist regarding the Creston Landfill and Creston Compost operations and maintenance contracts, has been received.

Moved and seconded,
And resolved that it be **recommended** to the Board:

That the Board direct Staff to issue a single Request for Proposal to combine the Creston Landfill and Creston Compost Facility operations contracts, with costs to be paid from Services S186 East Resource Recovery and A120 East Compost, respectively.

Carried

Moved and seconded,
And resolved that it be **recommended** to the Board:

That the Board approve the RDCK enter into a Service Agreement with GFL Environmental Ltd. for the operations and maintenance of the Creston Landfill for a six (6) month term starting April 1, 2025, at a total cost of up to \$218,034 not including GST;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service S186 East Sub-Region Resource Recovery Service.

Carried

Moved and seconded,
And resolved that it be **recommended** to the Board:

That the Board approve the RDCK extend the Service Agreement with GFL Environmental Ltd. for the operations and maintenance of the Creston Compost Facility for a five (5) month and twenty (20) day term starting April 10, 2025, at a total cost of up to \$86,659 not including GST;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service A119 East Compost.

Carried

7. HB TAILINGS FACILITY ENVIRONMENTAL MONITORING AND ENGINEERING CONSULTING CONTRACTS & REGULATORY UPDATE

[Central Sub-Region]

The September 17, 2024 Committee Report from Alayne Hamilton, Environmental Projects Lead outlining a regulatory update and proposing two direct award Consulting Service Agreements for environmental monitoring and engineering services for the HB Tailings Facility, has been received.

Moved and seconded,
And resolved that it be **recommended** to the Board:

That the Board approve the RDCK enter into a Consulting Services Agreement with SLR Consulting (Canada) Inc. for works associated with environmental support for the HB Tailings Facility for a three year term starting January 1, 2025, at a total cost of up to \$359,800 not including GST;

AND FURTHER, that the Consulting Services Agreement provide two optional one year extensions upon mutual agreement of both parties;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service S187 Central Sub-Region Resource Recovery.

Carried

Moved and seconded,
And resolved that it be **recommended** to the Board:

That the Board approve the RDCK enter into a Consulting Services Agreement with SRK Consulting (Canada) Ltd. for works associated with engineering consulting for the HB Tailings Facility for a two year term starting November 17, 2024, at a total cost of up to \$513,021 not including GST;

AND FURTHER, that the Consulting Services Agreement provide three optional one year extensions upon mutual agreement of both parties;

AND FURTHER, that the Board accept an insurance deductible modification for Professional Errors and Omissions Liability insurance to increase the deductible from \$50,000 to \$500,000;

AND FURTHER, that the Board accept a modification to the Professional Errors and Omissions Liability coverage to reduce the in aggregate amount from \$10,000,000 to \$5,000,000;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service S187 Central Sub-Region Resource Recovery.

Carried

8. LAKESIDE RECYCLING DEPOT LICENSE OF OCCUPATION
[Central Sub-Region]

Akane Norimatsu, Resource Recovery Technician will provide a verbal report regarding the Lakeside Recycling Depot License of Occupation.

The following has been received:

- Draft License of Occupation between City of Nelson and RDCK

Moved and seconded,
MOTION ONLY

That the Board authorize the renewal of the License of Occupation with the City of Nelson for Nelson Lakeside Recycling Depot for the term of January 1, 2024 to December 31, 2025 at the fees of \$58,308.27 per year;

AND FURTHER, that the costs be paid from Service No. A117 Central Sub-region Recycling.

Moved and seconded,
And resolved:

AMENDMENT TO THE MOTION

That the foregoing motion being:

That the Board authorize the renewal of the License of Occupation with the City of Nelson for Nelson Lakeside Recycling Depot for the term of January 1, 2024 to December 31, 2025 at the fees of \$58,308.27 per year;

AND FURTHER, that the costs be paid from Service No. A117 Central Sub-region Recycling.

Be amended to include that the Chair and Corporate Officer be authorized to sign the necessary documents, thus reading:

That the Board authorize the renewal of the License of Occupation with the City of Nelson for Nelson Lakeside Recycling Depot for the term of January 1, 2024 to December 31, 2025 at the fees of \$58,308.27 per year;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service No. A117 Central Sub-region Recycling.

Carried

Moved and seconded,
And resolved that it be **recommended** to the Board:
MAIN MOTION

That the Board authorize the renewal of the License of Occupation with the City of Nelson for Nelson Lakeside Recycling Depot for the term of January 1, 2024 to December 31, 2025 at the fees of \$58,308.27 per year;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service No. A117 Central Sub-region Recycling.

Carried

9. SALMO RECYCLING DEPOT LICENSE OF OCCUPATION

[Central Sub-Region]

Akane Norimatsu, Resource Recovery Technician will provide a verbal report regarding the Salmo Recycling Depot License of Occupation.

Moved and seconded,
And resolved:

That the following motion BE REFERRED to the November 13, 2024 Joint Resource Recovery Committee meeting:

That the resolution 68/24 being:

That the Board authorize the renewal of the Lease Contract with the Village of Salmo for the Salmo Recycling Depot for the term of July 1, 2020 to June 30, 2025 with proposed rental fees of \$566.80 (plus GST) per month; subject to renewal of insurance requirements;

AND FURTHER, that the costs be paid from Service No. A117 Central Sub-region Recycling.

Be amended to read:

That the Board authorize the renewal of the License of Occupation with the Village of Salmo for the Salmo Recycling Depot for the term of July 1, 2020 to June 30, 2025 with proposed rental fees of \$566.80 (plus GST) per month; subject to renewal of insurance requirements;

AND FURTHER, that the costs be paid from Service No. A117 Central Sub-region Recycling.

10. PUBLIC TIME

The Chair called for questions from the public and members of the media at 2:43 pm.

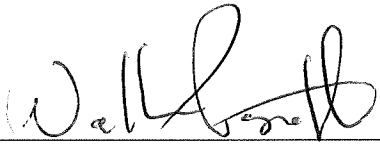
11. ADJOURNMENT

Moved and seconded,
And resolved:

The Joint Resource Recovery Committee meeting adjourned at 2:44 pm.

Carried

CERTIFIED CORRECT

A handwritten signature in black ink, appearing to read "W. Popoff", written over a horizontal line.

Director W. Popoff, Chair

October 16, 2024

Joint Resource Recovery Committee Meeting

BOARD RESOLUTIONS AS ADOPTED AT THE OCTOBER 16, 2024 JOINT RESOURCE RECOVERY COMMITTEE MEETING

RECOMMENDATION #1

That the Board authorize staff to purchase a Hyundai HL940A loader from Woodland Equipment Inc. up to a total cost of \$265,790 (excluding taxes);

AND FURTHER, that the Chair and Corporate Officer be authorize to sign the necessary documents;

AND FURTHER, that the costs be paid from Service S187 Central Waste.

RECOMMENDATION #2

That the Board accept the insurance modification to the Professional Liability (Errors and Omissions) coverage for Sperling Hansen Associates Inc. for the Nakusp Landfill Closure Planning Project to reduce the in aggregate amount from \$10,000,000 to \$5,000,000.

RECOMMENDATION #3

That the Board direct Staff to issue a single Request for Proposal to combine the Creston Landfill and Creston Compost Facility operations contracts, with costs to be paid from Services S186 East Resource Recovery and A120 East Compost, respectively.

RECOMMENDATION #4

That the Board approve the RDCK enter into a Service Agreement with GFL Environmental Ltd. for the operations and maintenance of the Creston Landfill for a six (6) month term starting April 1, 2025, at a total cost of up to \$218,034 not including GST;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service S186 East Sub-Region Resource Recovery Service.

RECOMMENDATION #5

That the Board approve the RDCK extend the Service Agreement with GFL Environmental Ltd. for the operations and maintenance of the Creston Compost Facility for a five (5) month and twenty (20) day term starting April 10, 2025, at a total cost of up to \$86,659 not including GST;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service A119 East Compost.

RECOMMENDATION #6

That the Board approve the RDCK enter into a Consulting Services Agreement with SLR Consulting (Canada) Inc. for works associated with environmental support for the HB Tailings Facility for a three year term starting January 1, 2025, at a total cost of up to \$359,800 not including GST;

AND FURTHER, that the Consulting Services Agreement provide two optional one year extensions upon mutual agreement of both parties;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service S187 Central Sub-Region Resource Recovery.

RECOMMENDATION #7

That the Board approve the RDCK enter into a Consulting Services Agreement with SRK Consulting (Canada) Ltd. for works associated with engineering consulting for the HB Tailings Facility for a two year term starting November 17, 2024, at a total cost of up to \$513,021 not including GST;

AND FURTHER, that the Consulting Services Agreement provide three optional one year extensions upon mutual agreement of both parties;

AND FURTHER, that the Board accept an insurance deductible modification for Professional Errors and Omissions Liability insurance to increase the deductible from \$50,000 to \$500,000;

AND FURTHER, that the Board accept a modification to the Professional Errors and Omissions Liability coverage to reduce the in aggregate amount from \$10,000,000 to \$5,000,000;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service S187 Central Sub-Region Resource Recovery.

RECOMMENDATION #8

That the Board authorize the renewal of the License of Occupation with the City of Nelson for Nelson Lakeside Recycling Depot for the term of January 1, 2024 to December 31, 2025 at the fees of \$58,308.27 per year;

AND FURTHER, that the Chair and Corporate Officer be authorized to sign the necessary documents;

AND FURTHER, that the costs be paid from Service No. A117 Central Sub-region Recycling.



Committee Report

Date of Report: October 31, 2024
Date & Type of Meeting: November 13, 2024; Joint Resource Recovery Committee (JRRC)
Author: Heidi Bench, Projects Advisor
Subject: RESULTS OF THE RESOURCE RECOVERY SYSTEM EFFICIENCY STUDY
File: 12-6300-20
Electoral Area/Municipality All areas and municipalities

SECTION 1: EXECUTIVE SUMMARY

The purpose of this report is to present a summary of the results of the Resource Recovery System Efficiency Study (the Study) and to recommend moving forward with the closure of Riondel, Kokanee Park Marina, and Winlaw Recycling Depots.

SECTION 2: BACKGROUND/ANALYSIS

The 2021 Resource Recovery Plan (RRP) committed to the strategy of ensuring that the RDCK Resource Recovery system is financially sustainable and resilient. As part of this, the RDCK set an action item of undertaking an efficiency study of the Resource Recovery system. The purpose of the Study was to:

- 1) Assess cost recovery of tipping fees to:
 - a. Understand the costs of managing specific waste types and how much of these costs are currently covered by tipping fees versus taxation;
 - b. Ensure that the balance between tipping fees and taxation is fair and equitable;
- 2) Benchmark the system to determine if the RDCK is over or under-serviced, both internally (between sub-regions) and externally (comparing similar regional districts); and,
- 3) Identify options to recognize efficiencies and improve cost-effectiveness and equitability, while ensuring regulatory compliance.

The proposed scope of work to accomplish these goals was presented to the JRRC in July 2023. The RDCK received proposals from two proponents and in September 2023, GHD Limited (GHD) was procured to complete the Study. GHD created a data model to assess tipping fee cost recovery and completed a benchmarking assessment comparing service levels in the RDCK both internally and externally. The results of these assessments were used to evaluate the performance and efficiency of the system as a whole, as well as for each sub-region.

The following sections will further detail each of the assessments, as well as summarize GHD's recommendations and how Staff see these fitting into their work plan.

TIPPING FEE COST RECOVERY ASSESSMENT

GHD worked with RDCK Staff to develop a data model to analyze the cost recovery of the existing tipping fee structure by waste material. This was completed by incorporating resource recovery expense, tipping fee revenue, and waste tonnage data from three full fiscal years (2020-2022), as well as capital expense data from 2016 through 2022 and planned capital expense data from 2023-2027. This data was used to estimate the cost

per tonne to manage specific materials as well as the revenue from tipping fees per tonne, both at the sub-regional and regional level.

Expenses were organized by three distinct sub-categories: operations and maintenance (O&M) costs, capital costs, and administrative costs. Expenses were allocated to waste material types where possible, and where not (some capital and most administrative expenses), they were allocated equally across the material types such that the cost to manage each material was proportional to the tonnage of that material handled.

GHD noted that the three administrative sub-region model of the RDCK Resource Recovery system, and the variation in infrastructure and in how materials and finances are managed across these sub-regions, is akin to operating waste management systems for three separate regional districts, which added a significant level of complexity to the building of this model. Due to this complexity and nature of the data available, there were numerous assumptions and limitations in developing the model. As such, the cost to manage output values in the model are not exact and have an uncertainty of +/- \$10 per tonne for large throughput materials (those greater than 3% of waste stream by weight) and a higher level of uncertainty for smaller throughput materials (those less than 3% of waste stream by weight). Assumptions and limitations of the model include the following:

- Tonnage data:
 - As the RDCK does not have scales at all sites, conversion values were used to estimate total tonnages collected. Tonnage data for household hazardous waste, recycling, and tires was provided by the product stewardship organization or contractor collecting that material.
 - As the organics program for food waste had not yet been fully implemented in the assessment period, annual organics tonnages and associated tipping fee revenues were estimated based on tonnages received between January 2023 and July 2024.
- Expense data:
 - With the exception of salary-related expenses, expenses were averaged across the years of data available to determine average annual cost (2020-2022 for O&M and administrative expenses, 2016-2027 for capital expenses).
 - For salary-related expenses, the model used 2022 salary data as using an average would underestimate the salary burden of the resource recovery program. Salary-related expenses for positions that have been added since 2022 (Resource Recovery Projects Advisor, Field Supervisors, Compost Operator) were also added to reflect expenses as accurately as possible in the model.
 - Costs associated with HB Tailings Facility were not included in the model.
- Tipping fee revenue data:
 - To account for tipping fee increases that occurred since 2022 (10% in 2023 and a subsequent 10% in 2024), the 2020-2022 averaged tipping fee revenue values were increased to represent what the revenue would be based on 2024 tipping fees.

For each material in the study, the model generated a cost per tonne to manage and tipping fee revenue per tonne, for the RDCK as a whole and for each sub-region (Table 1). The cost to manage materials was generally lowest in the West due to having the largest throughput of waste, followed by East and then Central sub-regions. Costs were highest in the Central sub-region primarily due to significantly more hauling being required as there is no active landfill in this sub-region, yet Central still pays for a portion of landfill operations via an annual transfer to the West.

Table 1: Material Management Costs (\$/tonne)

MATERIAL	EAST	CENTRAL	WEST	RDCK
Mixed waste ¹	\$183	\$233	\$146	\$193
Asbestos ²	\$183	-	\$146	\$193
Biosolids	-	-	\$78	\$88 ³
Construction, demolition, renovation (CDR) ²	\$183	\$233	\$146	\$193
Organic waste	\$613	\$202		\$314
Scrap metal ¹	\$196	\$174	\$92	\$144
Septage	-	\$106	\$78	\$101
Soils	\$95	\$101	\$78	\$88
Tires ²	\$106	\$136	\$118	\$125
Wood	\$191	\$239	\$149	\$199
Yard and garden	\$135	\$166	\$168	\$163
Recycling	\$571	\$1,039	\$701	\$933
Household Hazardous Waste (HHW)	\$6,411	\$1,195	\$5,284	\$1,664

¹ Includes materials that are managed as mixed waste (bulky waste, land clearing, noxious weeds, rubble)

² The actual cost to manage these materials is underestimated in the model as it was not possible to estimate and model the exact costs associated with management of each and every material, especially for the smaller throughput materials that require additional handling or administrative support. For example, asbestos-containing materials require additional administrative support for permitting and scheduling, require more soil or borrow material for immediate cover, and due to these cover requirements, take up more space in the landfill than just the footprint of the disposed asbestos.

³ When administrative and capital costs are allocated across the entire region as a whole, they are slightly higher than those for just the West sub-region, resulting in a higher estimated cost to manage this material regionally than those estimated for the West sub-region to manage independently.

The cost/tonne and revenue/tonne values from the model were used to estimate the percent cost recovery from tipping fees for each material, for the RDCK as a whole and for each sub-region. Table 2 below summarizes the tipping fee cost recovery based on the results of the model.

Table 2: Tipping Fee Cost Recovery (%)

MATERIAL	EAST	CENTRAL	WEST	RDCK
Mixed waste	79%	78%	116%	87%
Asbestos	276%	-	231%	189% ²
Biosolids	-	-	77%	69% ²
Construction, demolition, renovation (CDR)	122%	112%	163%	122%
Organic waste	14%	63%		42%
Scrap metal ¹	49%	45%	75%	52%
Septage	-	54%	74%	57% ²
Soils	23%	22%	61%	50%
Tires	284%	260%	311%	275%
Wood	38%	33%	47%	41%
Yard and garden	17%	17%	18%	18%

¹ While the tipping fees for scrap metal do not recover the costs associated with managing it, once the revenues from scrap metal recycling are applied, costs are fully recovered (estimated 153% cost recovery for the RDCK as a whole).

² Cost recovery for the RDCK as a whole is slightly underestimated for this material. This is due to the fact that this material is not managed in all three sub-regions. When administrative and capital costs are allocated across the entire region in the

model, they are slightly higher than those for just the individual sub-regions, resulting in a higher estimated cost to manage and therefore lower cost recovery regionally.

The tipping fee cost recovery assessment indicated that the RDCK’s cost to manage most materials exceeds what is being recovered by current tipping fees, and that cost recovery varies significantly across sub-regions for some materials.

As per the 2021 RRP, the “user pay” model, where users who generate waste pay for its disposal, is something that the RDCK strives towards in its resource recovery system, where feasible. Based on this, tipping fees would ideally cover, at minimum, the cost to manage waste materials that end up in the landfill. User pay is also the goal of Extended Producer Responsibility programs such as RecycleBC; however, until stewardship organizations are able to establish rates that actually cover the cost to manage the materials they recycle, subsidization through taxation will be necessary for these programs.

According to GHD’s waste specialists, typically in regional solid waste operations, mixed waste tipping fees are set higher than the estimated cost to manage this material in order to incentivize diversion and to provide revenue to subsidize the costs to manage divertible materials, such as wood, yard and garden, and scrap metal. However, as diversion rates increase, the waste stream going into the landfill and associated tipping fee revenue typically decreases, which, in the absence of EPR programs that cover the full costs of diversion, means that taxation will always be needed to achieve the goal of increasing diversion.

Based on the cost recovery values identified by the model and guided by the user pay principle and capabilities of the current Resource Recovery system, GHD made the recommendations shown in Table 3 below.

Table 3: Summary of Tipping Fee Assessment Recommendations

MATERIAL	RECOMMENDATION(S)	RATIONALE
Mixed Waste	Increase the tipping fee to approximately \$193/tonne	Tipping fee should cover, at minimum, the regional cost to manage this material.
Wood	Increase the tipping fee for clean wood to 75% of the mixed waste tipping fee Increase the tipping fee for all other wood waste (i.e. painted wood, furniture, laminates, etc.) to match the rate for mixed waste and dispose of in the landfill without processing.	Clean wood and wood waste are currently accepted at a lower tipping fee to incentivize diversion, but the RDCK does not currently have an end market for the volume of wood being received, resulting in high processing costs (wood grinding), only for it to be stored at facilities taking up space or ending up in the landfill. Many beneficial end uses of wood, such as compost or biochar, are prevented by mixing clean wood with other wood waste.
Yard & Garden	Increase the tipping fee to 75% of the mixed waste tipping fee Consider the cost savings of discontinuing the free yard and garden drop-off months versus the community benefit (e.g. fire prevention)	Similar to wood waste, yard and garden materials are costly to manage due to processing and hauling, and the RDCK currently receives far more than it is able to use (in compost, mixed with dried septage at landfill sites). Greater than 50% of the yard and garden materials collected are received during the free yard and garden events. Due to low/lack of tipping fees, this service is substantially paid for through taxation.
Soil	Increase the tipping fee for clean soil to 75% of the mixed waste tipping fee	Soil is needed for landfill cover material, but not in the amounts that were received during the timeframe of the study. Accepting too much soil

MATERIAL	RECOMMENDATION(S)	RATIONALE
	Increase the tipping fee for contaminated soil to match the tipping fee for CDR	<p>consumes valuable landfill airspace. As regulations regarding the relocation of clean soil have become more stringent, there are few options for clean soil disposal and a low tipping fee is not necessary to incentivize soil disposal at landfills. If additional clean soil is needed, a lower rate could be provided on a case-by-case basis.</p> <p>The environmental containment structure of a landfill is necessary to manage the potential impacts from contaminated soil, similar to any other landfill materials, therefore the tipping fee for this should at minimum, recover the life cycle costs of a landfill, as reflected in the tipping fee for mixed waste.</p>
Rubble	Eliminate this waste category and include as CDR	Rubble is not received in significant amounts across the region, but a decent amount was received in the East sub-region during the timeframe of the study. Rubble was likely incentivized with a lower tipping fee such that the material could be stockpiled and used at facilities for road building; however it currently is disposed of as mixed waste (i.e. landfilled). As such, it should be charged to reflect this cost to manage as CDR to reflect the additional challenges associated with landfilling larger materials until an end use that allows for diversion is developed.
Septage	Implement planned increase to \$90/tonne in 2025	The septage bylaw dictates that the tipping fee will increase by \$20/tonne in 2025, bringing this tipping fee to \$90/tonne. This will allow for slightly higher than cost recovery in the West sub-region, where the most septage is received, and close to cost recovery in Central, where minimal septage is received. Cost recovery for Septage in the East sub-region was not calculated as part of this study as significant changes are currently underway for septage management in the East sub-region, so detailed analysis of the current system did not have much value.
Organics	Allow time for full implementation of the program and evaluate cost recovery again in a few years	The organics program is still getting off the ground and increasing tipping fees at this point might discourage participation in this program. It would be best to re-assess cost recovery for this material in a few years once the tonnages going into the facility have stabilized more and the pilot for biosolids composting is completed.

MATERIAL	RECOMMENDATION(S)	RATIONALE
-	Aggregate system costs and revenues across the RDCK instead of by sub-region	Tipping fees are currently the same across all sub-regions, with the exception of the per container rate for mixed waste in the Central sub-region. As tipping fee revenue currently remains in the sub-region where it was collected, while the cost to manage materials varies across sub-regions, this results in significant variation in the level of taxation required across the three sub-regions. The taxation for waste management services in the Central sub-region is more than four times the taxation in the West sub-region, while taxation in the East is about triple that in the West. Aggregation of costs and revenues at the regional level would result in a more equitable and efficient Resource Recovery system for RDCK residents.

BENCHMARKING ASSESSMENT

GHD completed a jurisdictional scan to identify regional districts with similar characteristics and demographics to the RDCK for the external benchmarking assessment. From the list of twenty-seven (27) regional districts in BC, seven (7) regional districts were identified as similar to the RDCK. Service level and financial benchmarking criteria were set based on conversations between GHD and Staff, and public availability of data. Service level and financial data was collected, tabulated, and analyzed for the selected regional districts, as well as for the three RDCK sub-regions for internal benchmarking. Tables summarizing these detailed analyses are in Section 4 of the Study, included as Attachment A.

Comparison to Other Regional Districts

Of the seven regional districts, the RDCK ranked second in both the service level and cost benchmarking, indicating that the RDCK Resource Recovery system provides residents with a high level of service compared to the other regional districts in the Study, alongside a relatively high cost per capita to pay for the system and this level of service. Of the regional districts in the Study, the RDCK had the highest tipping fee for mixed waste.

Equitability in the balance between tipping fee revenue and taxation to cover the costs of the Resource Recovery system is a subjective measure. There is no correct or perfect amount, it depends on the values and goals of the governing body. GHD completed a simplified costing exercise to benchmark this balance across the regional districts in the Study. Based on this crude analysis, the RDCK ranked second for cost recovery via tipping fees, which is reflective of its higher tipping fees, indicating that the user pay principle is being applied more strongly in the RDCK than in other regional districts.

GHD notes that as diversion has been prioritized and growing over the past 15 years, solid waste systems are increasingly leaning on taxation as opposed to tipping fees for funding, due to loss of tipping fee revenue as materials are increasingly diverted from landfills. The results of the simplified costing exercise show that of the regional districts in the Study, on average 40% of waste system costs are being funded through tipping fees, with the remaining 60% through taxation. This excluded the RDEK who has limited tipping fees at landfills only and therefore relies almost exclusively on taxation for funding. Based on this simplified analysis, the RDCK was funded slightly more through tipping fees than average, with 45% tipping fee cost recovery and 55% funded through taxation.

Comparison between RDCK Sub-Regions

Based on the service level benchmarking analyses, GHD deemed the system to provide an equitable level of service across the RDCK, with slight variations. The East sub-region has the most facilities per capita and by area, but also the highest proportion of rural population without access to curbside services, while the Central sub-region has the highest service level with the most operating hours per capita and access to a year-round eco-depot, but accepts fewer materials than the other sub-regions due to not having an active landfill (i.e. asbestos, biosolids, bulky waste, and land clearing waste).

To further investigate where the Resource Recovery system might be under or over-operating internally, GHD completed a benchmarking analysis at the RDCK facility level by using the weekly number of summer operating hours and tonnage collected at each site to determine an estimated average weight collected per hour of operation at each site.

As expected, the landfills receive the highest weight of waste per hour of operation, while the standalone recycling depots receive the lowest. One exception to this is Grohman Narrows Transfer Station, which receives more waste than the Nakusp Landfill. There were three (3) facilities that received less than 50kg of material per hour of operation:

- Riondel Recycling Depot
- Kokanee Park Marina Recycling Depot
- Winlaw Recycling Depot.

GHD identified that these three facilities represent potential opportunities to reduce system costs as each is in close proximity (less than 20 minute drive) to other RDCK recycling facilities. As these facilities are satellite recycling depots, they only accept a portion of recyclable materials and residents must access nearby transfer stations/core depots for disposal of flexible plastics, foam, and other waste materials. Even at low weekly hours of operation, the costs of operating, maintaining, and hauling materials from these three facilities is approximately \$120,000 per year, which is about 10% of the budget for recycling services.

An additional four (4) facilities only received between 50 and 100 kg per hours of operation:

- Salmo Recycling Depot
- Crescent Valley Recycling Depot
- New Denver Recycling Depot
- Yahk Recycling Depot and Transfer Station

GHD proposed that the Salmo, Crescent Valley, and New Denver facilities' hours of operation could be reduced to 12 hours or less per week to reduce operating costs and bring the efficiency of these sites more in line with other RDCK facilities. The Yahk facility is open only four (4) hours per week and there are no nearby RDCK facilities, so no changes were recommended here.

Core and Satellite Recycling Depot Comparison

GHD also completed a benchmarking of the distribution of core and satellite recycling facilities across the regional districts in the Study and across the RDCK. This identified that the RDCK operates the second highest number of recycling depots, and a high number of satellite depots compared to other regional districts, most of whom do not operate any. GHD states that even with the closure of the four satellite depots suggested above and some reduction in hours at the other depots listed, the RDCK would continue to provide its residents a reasonable to high level of service compared to most of the other regional districts in the Study.

SUMMARY

The Study identified that the RDCK Resource Recovery system is operated generally efficiently despite the complexities of the three sub-region administrative model. The RDCK provides a high level of service and accessibility to waste and recycling compared to similar regional districts and the cost to run the system reflects this. Internally, GHD deemed the system to provide an equitable level of service across the RDCK, with slight variations. GHD identified that efficiencies and cost savings could be recognized in several areas. Table 4 summarizes the recommendations made by GHD and how Staff propose to address these.

Table 4: System Efficiency Study Recommendations and Implementation Plan

Recommendation (GHD)	Proposed Plan (RDCK Staff)
Increase tipping fees for select materials	Tipping fee increases will be proposed for incorporation in an update to the Resource Recovery Facilities Regulatory Bylaw No. 2905, expected to be presented to the Board by the Environmental Coordinator in December 2024.
Change how select materials are accepted and stored (scrap metal, wood, yard and garden)	The Environmental Coordinator will conduct a review of end markets for scrap metal, wood, and yard and garden materials to guide/improve diversion strategies and reduce storage time at facilities (in-house).
Reduce the operating hours at three (3) facilities	The Resource Recovery Operations Coordinator will conduct a more thorough site hours review in early 2025 to determine if operating hours should be adjusted at RDCK facilities.
Closure of three (3) facilities	Staff seek authorization from the Board to plan the closure of at minimum, the Kokanee Park Marina Recycling Depot, as well as the Riondel and Winlaw Recycling Depots in 2025. This would be overseen by the Resource Recovery Technician .
Continue to optimize use of Strong scale software to track flow of materials across the RDCK	The Environmental Coordinator will continue to optimize use of the Strong scale software, including implementing tracking of source sector of waste (i.e. residential, commercial, CDR) in 2025.
Track waste hauling by material type to better understand that costs associated with each material	<p>The Operations Supervisor will request that waste material type be included on waste hauler invoices (East and West sub-regions) and implement internal tracking system for in-house waste hauling (Central sub-region) in 2025.</p> <p>The Resource Recovery Projects Advisor will compile and analyze this data after one year of collection to better understand the hauling costs associated with each material, to help guide further diversion strategy development.</p>
Continue to monitor the implementation of new extended producer responsibility (EPR) programs and evaluate how the RDCK should participate	The Resource Recovery Technician will continue to advocate for increased EPR programs, and monitor and plan for their implementation.
Conduct a regionalization study to assess the cost-benefit of operating from a single, centralized administrative system	<p>Option 1: The Resource Recovery Projects Advisor could conduct an equitability analysis using the 2025 budget to estimate the difference in tax allocation if all services were under one administrative sub-region, as well attempt to quantify potential efficiencies in staff time.</p> <p>Option 2: The Resource Recovery Manager and Technician could pilot regionalization by combining the allocation services for recycling (A116-A118) into one centralized service in 2025.</p>

Staff have provided further analysis and recommendations on the suggested recycling facility closures in the sections below. The remaining recommendations from the Study are provided for information only at this point in time. Staff will assess each of GHD’s recommendations and provide the JRRC with more fulsome analysis in coming months for those that require direction or authorization from the Board.

SECTION 3: DETAILED ANALYSIS

3.1 Financial Considerations – Cost and Resource Allocations:

Included in Financial Plan: Yes No **Financial Plan Amendment:** Yes No
Debt Bylaw Required: Yes No **Public/Gov’t Approvals Required:** Yes No

Tipping Fee Changes

Based on the results of the tipping fee cost recovery assessment, GHD recommended considering increases to tipping fees for mixed waste, clean wood, wood waste, clean (uncontaminated) soil, waste (contaminated) soil, rubble, and yard & garden waste. Table 5 shows the estimated increase in annual tipping fee revenue that could be expected based on GHD’s recommended tipping fee increases and the average waste tonnages from the period of the Study.

Table 5: Estimated Annual Tipping Fee Revenue Increase

Material	Current Tipping Fee (\$/tonne)	Proposed Tipping Fee (\$/tonne)	Estimated Additional Annual Tipping Fee Revenue (\$)¹		
			EAST	CENTRAL	WEST
Mixed waste	\$151.25	\$193.00	\$275,258	\$397,251	\$488,767
Clean wood waste²	\$78.75	\$144.75	\$4,158	\$6,290	\$6,065
Wood waste²	\$78.75	\$193.00	\$64,894	\$97,992	\$94,496
Uncontaminated soil³	\$21.75	\$144.75	\$41,414	-	\$254,899
Waste soil³	\$48.50	\$242.00	\$120,996	-	\$744,714
Rubble	\$43.00	\$193.00	\$38,400	\$10,350	\$33,300
Yard & Garden⁴	\$60.50	\$144.75	\$42,883	\$56,233	\$19,462
TOTALS			\$588,003	\$568,116	\$1,641,703

¹ Relative to the 2024 tipping fee revenue, based on 2020-2022 average waste tonnages.

² There is insufficient data to estimate the proportion of wood waste that is clean versus non-clean as, while the Bylaw differentiates these materials, it is not currently differentiated in the scale data system. Due to this, it was estimated that clean wood would make up 10% and waste wood would be 90% of the total wood waste.

³ The proportion of uncontaminated versus waste soil varies significantly from year to year; the proportion varied from 63-99% waste soil in the years since 2020. To provide a conservative estimate, the proportion of waste soil was assumed to be 65%.

⁴ Based on average tonnage of paid yard and garden waste (assumes continuation of bi-annual free yard & garden collection months).

These estimates do not account for fluctuations in tonnage that would likely occur due to changes in tipping fees and/or material management. When updating tipping fees, consideration should be given to the balance between the user pay (tipping fee) and taxation-based system models. GHD noted that while the RDCK strives to have a user-pay system, as diversion rates grow, increased taxation becomes necessary to fund waste systems, as tipping fee increases cannot be made in perpetuity. If tipping fees are too high, they will discourage proper disposal and diversion. Maintaining the use of tipping fees satisfies the RRP guiding principle to incorporate the user-pay model, where feasible, to reduce the amount of taxation required. While cost recovery is a helpful guide, it should not be the only factor in setting tipping fees. For comparison, Table 6 shows the range of per tonne tipping fees for these materials in neighbouring regional districts.

Table 6: 2024 Tipping Fees in Neighbouring Regional Districts (\$/tonne)

Material	RDCK	Columbia Shuswap Regional District	Regional District of East Kootenay	Regional District of Kootenay Boundary
Mixed waste	\$151.25	\$90	free	\$120
Clean wood waste	\$78.75	\$50	free	\$50
Wood waste	\$77.75	\$50	\$0-\$200	\$120-\$175
Uncontaminated soil	\$21.75	\$10	\$0-\$40	\$10-\$20
Waste soil	\$48.50	\$40	\$100	\$20-\$40
Rubble	\$43.00	\$90	free	\$50
Yard & Garden	\$60.50	\$0-\$90	free	\$50 ¹

¹ Tipping fee for woody plant waste. Grass clippings and leaves are \$5/load.

Of these regional districts, the RDCK already has the highest tipping fees for mixed waste, clean wood waste, and uncontaminated soil. It is unlikely that other regional districts are recovering the full costs to manage these materials through tipping fees, indicating that they are likely leaning towards more taxation-based waste management strategies, or simply haven't quantified the cost of managing different waste types. This data will be considered in the development of formal recommendations relating to tipping fee and material management changes, to be made as part of an upcoming bylaw amendment.

While the recommended tipping fee increases and material management changes would increase cost recovery, under the current administrative model the distribution of added tipping fee revenue would not be even across the three sub-regions and would result in further discrepancies in taxation levels. The West sub-region would see the greatest benefit as it receives the greatest proportion of the high throughput materials (mixed waste, soil, septage), yet has the lowest cost to manage these materials. As GHD points out in the Study, the West sub-region waste services are likely being subsidized with tipping fee revenues from material generated in the Central sub-region, as the West hosts the primary receiving landfill for both sub-regions. This provides additional justification to consider evaluating centralizing system administration through a regionalization study.

In addition to increased equitability for residents across the RDCK, potential financial benefits of regionalization would also include cost savings related to administrative and operational efficiency. Both GHD and the consultants overseeing the RRP (Maura Walker Environmental Consultants Ltd. and Carey McIver and Associates Ltd.) pointed out that the current Resource Recovery system operates similar to three separate regional districts. While there are some cost savings compared to the operation of three independent regional districts in having staff that oversee programs across all three, administration and management of the three sub-regions is far more complex than operating as a single regional district. The cost benchmarking in GHD's Study identified that the RDCK had one of the highest costs per capita of the regional districts in the study. While part of this is likely related to the relatively high level of service provided by the RDCK, operating with three administrative sub-regions also results in increased staff, staff time, and associated cost. Further analysis would be required to quantify the cost savings of regionalizing waste services.

Changes to Service Levels

It is anticipated that the new RecycleBC incentive rates proposed for 2025 will cover close to 60-65% of the RDCK's current cost to manage recycling. The recommended facility closures and hours reductions would help to close the gap between recycling system costs and the incentive received from RecycleBC, further reducing the amount of subsidization required from taxes. Similar to the facilities GHD recommended for closure, the Ymir

Transfer Station and Recycling Depot is also located less than 20 minute drive from other RDCK facilities. The Ymir facility is currently only open 6 hours per week, so there would not be much cost savings in reducing hours at this site, but closure of this facility would result in cost savings for the Central sub-region, which currently has the highest tax burden of the three sub-regions.

Even with the closure of these four facilities, the RDCK would have above average facility density and operating hours per capita compared to other regional districts in the Study, indicating that the RDCK would still be providing a high level of service to its residents. The Central sub-region would still have the highest facility hours of operation per capita of the three sub-regions, but would have the lowest facility density.

The closure of these facilities would result in the cost savings shown in Table 8. The values in this table do not include costs related to administrative and managerial staff time for these facilities. The Study indicated that the cost per tonne for the RDCK as a whole to manage recycling is \$933/tonne and to manage mixed waste is \$193/tonne.

Table 8: Facility Operating Costs

Facility	Annual Operating Cost (2023)	Operating Cost per Tonne of Recycling
Winlaw Recycling Depot	\$33,382	\$2,384/tonne
WEST SUB-REGION TOTAL	\$33,382	
Kokanee Park Marina Recycling Depot	\$68,562	\$1,459/tonne
Ymir Transfer Station and Recycling Depot	\$45,304	\$612/tonne ¹
CENTRAL SUB-REGION TOTAL	\$113,866	
Riondel Recycling Depot	\$17,552	\$1,463/tonne
EAST SUB-REGION TOTAL	\$17,552	

¹ Costs and tonnages are for waste and recycling combined, so this value reflects the combined cost per tonne for all materials accepted at this site (mixed waste and recycling).

Reductions in operational hours at other low volume facilities would also result in cost savings; however staff would need to conduct an operational hours review to determine what hours reductions would be reasonable and to quantify cost savings. It should be noted that, while it is not anticipated that this change would deter residents from continuing to separate recyclable materials from their waste, any reductions seen would result in a reduction to the incentive received from RecycleBC to fund this program.

3.2 Legislative Considerations (Applicable Policies and/or Bylaws):

Tipping fee changes will require an amendment to the Resource Recovery Facilities Regulatory Bylaw No. 2905.

Staff recommend that further in-house evaluation be completed to assess the costs and benefits of regionalization of the Resource Recovery system, and recognize that any changes related to allocation of expenses and cost recovery would require amendments to the following bylaws:

- Creston and Electoral Areas A, B & C Refuse Disposal Local Service Area Bylaw No. 924 (1992), as amended by Bylaw No. 1072 and Bylaw No. 1148;
- Central Waste Management Subregion Refuse Disposal/Recycling Local Service Area Establishment Bylaw No. 1071, as amended by Bylaw No. 1149; and,
- West Waste Management Subregion Refuse Disposal/Recycling Local Service Area Establishment Bylaw No. 1070, as amended by Bylaw No. 1140.

3.3 Environmental Considerations

The Study and its recommendations focus on efficiency primarily from an equitability and financial perspective; however decisions regarding how to implement the recommendations need to also take into account the related environmental impacts which can be difficult to quantify.

Changes to tipping fees and practices in material acceptance could result in increases in illegal dumping or reductions in diverting materials from the landfill. In particular, the environmental impacts related to the recommendation to landfill non-clean wood waste are unclear. Environmental benefits include reducing greenhouse gas (GHG) emissions associated with wood grinding and reducing on-site fire hazard from storage of chipped materials at facilities. However, this would also result in an increased amount of waste hauling (and associated GHGs), increased landfill airspace consumption, and increased organic material in the landfill resulting in increased GHG emissions related to anaerobic decomposition. Similarly, elimination of the biannual free yard and garden months could result in increased community fire risk. Further analysis would be required to quantify the cost-benefit of recommended changes to wood and yard and garden material management.

Closure or hours reductions at recycling facilities may lead to more recyclable materials being landfilled. As residents using the Winlaw, Kokanee Park Marina, and Riondel satellite recycling depots need to use the nearby transfer stations/core depots to dispose of other waste materials anyways, it is not anticipated that this change would deter residents from continuing to separate recyclable materials from their waste, nor should it incur significantly more GHG emissions related to transportation. The supplemental waste composition study, scheduled for 2028, will help to quantify the impact of these changes in the waste stream (if implemented).

3.4 Social Considerations:

Tipping fees have generally been set at the same rate across all three sub-regions to promote user equitability between sub-regions and to prevent excessive transportation of waste (i.e. users seeking cheapest disposal option). The revenue from these tipping fees currently stays in the sub-region in which it was collected. Where cost recovery is less than 100%, the balance is covered primarily through taxation, with some amounts covered by grants and/or incentives. The discrepancies in cost to manage materials across sub-regions, while having a single tipping fee structure to promote user equitability, results in inequitable tax subsidization for residents across the RDCK. Based on this structure, residents in the Central sub-region pay more than four times those in the West, while residents in the East pay almost three times those in the West in taxation for the same level of service. Regionalization is an option that would improve equitability in taxation across the Resource Recovery system.

The potential closure of satellite recycling facilities would reduce convenience for users of impacted facilities, requiring residents to store their core recycling materials for delivery along with their other waste and recyclables at the nearest transfer station/recycling depot. Potential reductions in facility operating hours would require users to adapt to new hours.

3.5 Economic Considerations:

No economic considerations at this time.

3.6 Communication Considerations:

Communication of plans to increase tipping fees by up to 10% for select materials was sent to all municipalities and account holders on October 18 and 30, respectively.

If recycling facility closures are authorized, communication of closures would need to be made to the public and facility staff/operators a minimum of thirty days in advance of proposed closure date. As the Ymir Transfer Station and Recycling facility provides more service than the other satellite recycling depots, more notice would be required if closure of this facility were pursued.

No additional communication considerations at this time.

3.7 Staffing/Departmental Workplace Considerations:

The works proposed based on the recommendations of the Study shall be completed by several members of the Resource Recovery team, as highlighted in Table 4 above. The Resource Recovery Projects Advisor will guide the implementation of these actions, with oversight and support from the Resource Recovery Manager and General Manager of Environmental Services.

3.8 Board Strategic Plan/Priorities Considerations:

The Tipping Fee Cost Recovery Assessment and System Efficiency Study aligns with the RDCK's strategic objectives to manage assets and service delivery in a fiscally responsible manner and to continue to innovate to reduce the impact of waste.

SECTION 4: OPTIONS & PROS / CONS

RECOMMENDATION 1: CENTRAL SUB-REGION

OPTION 1: That the Board authorize Staff to not extend the existing lease agreement with Kokanee Creek Marine Ltd. for the lease of lands and operations associated with the Kokanee Park Marina Recycling Depot and permanently close the Kokanee Creek Marina Recycling Depot effective December 31, 2024.

Pros:

- Reduces costs to the Central sub-region by approximately \$68,562 while still providing residents a reasonable to high level of service compared to other regional districts.
- Helps to close the gap between the operating cost of the RecycleBC program and the funding provided through RecycleBC incentives.

Cons:

- Residents who use this satellite depot will have less convenience for core recycling material disposal and will have to store these materials for delivery along with their other waste and recyclables at the nearest transfer station/recycling depot.
- May result in slight increases in recyclable materials being landfilled.

OPTION 2: That the Board authorize Staff extend the existing lease agreement with Kokanee Creek Marine Ltd. for the lease of lands and operations associated with the Kokanee Park Marina Recycling Depot.

Pros:

- Allows the RDCK to continue to provide a higher level of service than other regional districts.
- Residents who use Kokanee Park Marina Recycling Depot will continue to have convenient access for disposal of core recycling materials.

Cons:

- Does not result in any cost savings or help to close the gap between the operating cost of the RecycleBC program and the funding provided through RecycleBC incentives.

RECOMMENDATION 2: EAST SUB-REGION

OPTION 1: That the Board authorize staff to plan the permanent closure of Riondel Recycling Depot in 2025.

Pros:

- Reduces costs to the East sub-region by approximately \$17,552, while still providing residents a reasonable to high level of service compared to other regional districts.
- Helps to close the gap between the operating cost of the RecycleBC program and the funding provided through RecycleBC incentives.

Cons:

- Residents who use this satellite depot will have less convenience for core recycling material disposal and will have to store these materials for delivery along with their other waste and recyclables at the nearest transfer station/recycling depot.
- As this site would no longer be staffed, this would eliminate the oversight for the current collection of waste in the same location through the site staff. This may either increase disposal without bag tag (resulting in revenue loss) or require additional staffing and therefore cost under service S189 Refuse Transfer Area A.
- May result in slight increases in recyclable materials being landfilled.

OPTION 2: That the Board does not authorize staff to plan the permanent closure of Riondel Recycling Depot in 2025.

Pros:

- Allows the RDCK to continue to provide a higher level of service than other regional districts.
- Residents who use Riondel Recycling Depot will continue to have convenient access for disposal of core recycling materials.

Cons:

- Does not result in any cost savings or help to close the gap between the operating cost of the RecycleBC program and the funding provided through RecycleBC incentives.
- Continues to provide the oversight for the current collection of waste in the same location through the recycling site staff.

RECOMMENDATION 3: WEST SUB-REGION

OPTION 1: That the Board authorize staff to plan the permanent closure of Winlaw Recycling Depot in 2025.

Pros:

- Reduces costs to the West sub-region by approximately \$33,382, while still providing residents a reasonable to high level of service compared to other regional districts.
- Helps to close the gap between the operating cost of the RecycleBC program and the funding provided through RecycleBC incentives.

Cons:

- Residents who use this satellite depot will have less convenience for core recycling material disposal and will have to store these materials for delivery along with their other waste and recyclables at the nearest transfer station/recycling depot.
- May result in slight increases in recyclable materials being landfilled.

OPTION 2: That the Board does not authorize staff to plan the permanent closure of Winlaw Recycling Depot in 2025.

Pros:

- Allows the RDCK to continue to provide a higher level of service than other regional districts.

- Residents who use Winlaw Recycling Depot will continue to have convenient access for disposal of core recycling materials.

Cons:

- Does not result in any cost savings or help to close the gap between the operating cost of the RecycleBC program and the funding provided through RecycleBC incentives.

SECTION 5: RECOMMENDATIONS

RECOMMENDATION 1: CENTRAL SUB-REGION

That the Board authorize Staff to not extend the existing lease agreement with Kokanee Creek Marine Ltd. for the lease of lands and operations associated with the Kokanee Park Marina Recycling Depot and permanently close the Kokanee Creek Marina Recycling Recycling Depot effective December 31, 2024.

RECOMMENDATION 2: EAST SUB-REGION

That the Board authorize staff to plan the permanent closures of Riondel Recycling Depot in 2025.

RECOMMENDATION 3: WEST SUB-REGION

That the Board authorize staff to plan the permanent closure of Winlaw Recycling Depot in 2025.

Respectfully submitted,
Heidi Bench, Projects Advisor

CONCURRENCE

Resource Recovery Manager – Amy Wilson
General Manager of Environmental Services – Uli Wolf
Corporate Administrative Officer – Stuart Horn

ATTACHMENTS:

Attachment A – Tipping Fee Cost Recovery Assessment & Resource System Efficiency Study



Tipping Fee Cost Recovery Assessment & Resource System Efficiency Study

Regional District of Central Kootenay

November 5, 2024

→ The Power of Commitment



Project name		Tipping Fee Cost Recovery Assessment and Resource Recovery System Efficiency Study				
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1. Introduction

The Regional District of Central Kootenay (RDCK) is undertaking a tipping fee cost recovery assessment and resource recovery system efficiency study (Study) to gain an understanding of the current costs, cost recovery structure and overall efficiency of the resource recovery system.

The RDCK's goal is to develop a resource recovery system that is financially sustainable, resilient, and supported by balanced funding mechanisms. The distribution of urban and rural residents, governed by three sub-regions, has resulted in a complex network of solid waste infrastructure to provide varying levels of waste management services for RDCK residents and the commercial sector. This Study analyses the current cost structure, allocates costs by material and operation type, and recommends potential opportunities to reduce costs and increase system efficiency.

1.1 Scope and Limitations

This report has been prepared by GHD for Regional District of Central Kootenay.

GHD has prepared this report on the basis of information provided by Regional District of Central Kootenay and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

2. Background and Current System Review

The RDCK updated their Resource Recovery Plan (RRP) in 2021 to guide waste management programs, services, policies and procedures to reflect the region's current needs and support a zero-waste philosophy. The RRP gained approval by the BC Minister of Environment and Climate Change Strategy in 2023. The RRP identified actions for the RDCK to pursue which included a tipping fee cost recovery assessment and a resource recovery system efficiency analysis to ensure the resource recovery system is financially sustainable and resilient and supports waste reduction and diversion. This Study supports this RRP action. As part of the Study, a detailed background and current system review was completed to understand the RDCK resource recovery system.

2.1 RDCK Sub-Region Administrative Model

Located in the southern interior of British Columbia (BC), the RDCK consists of eleven unincorporated electoral areas (Central Kootenay A – K) and nine member municipalities (Castlegar, Creston, Kaslo, Nakusp, Nelson, New Denver, Salmo, Silverton and Slocan). The RDCK covers an area of approximately 22,000 km². The RDCK operates under three separate sub-regional service areas to manage resource recovery (West sub-region, Central sub-region, and East sub-region). Each sub-region operates independently regarding their waste management facilities, recycling programs, and service methods (i.e., contracted vs in-house operations). Each sub-region also completes separate annual budgets and tax requisitions with governance provided by sub-regional Resource Recovery Committees.

2.2 Population

The 2021 Census reported a total RDCK population of 62,509 (Statistics Canada¹). Table 2.1 summarizes the 2021 population breakdown for each member municipality and electoral area within each of the three sub-regions. The overall population density for the RDCK is 2.8 people per square kilometre. A total of 28,006 private dwellings were occupied by permanent residents, which equates to an average household size of 2.2 people.

¹ Statistics Canada, 2021 Census of Population.

Table 2.1 2021 Population Statistics per Member Municipality and Electoral Area

West Sub-Region		Central Sub-Region		East Sub-Region	
Municipality / Electoral Area	Population	Municipality / Electoral Area	Population	Municipality / Electoral Area	Population
Central Kootenay H	5,045	City of Nelson	11,106	Central Kootenay A	2,241
Central Kootenay I	2,607	Village of Salmo	1,140	Central Kootenay B	4,802
Central Kootenay J	3,517	Village of Kaslo	1,049	Central Kootenay C	1,475
Central Kootenay K	1,784	Central Kootenay D	1,462	Town of Creston	5,583
City of Castlegar	8,338	Central Kootenay E	3,897	Creston First Nation	93
Village of New Denver	487	Central Kootenay F	4,116		
Village of Silverton	149	Central Kootenay G	1,650		
Village of Nakusp	1,589				
Village of Slocan	379				
West Sub-Region Total	23,895	Central Sub-Region Total	24,420	East Sub-Region Total	14,194
RDCK Total Population					62,509

The Central sub-region contains the largest population of 24,420 people and covers a total area of approximately 8,830 km², equating to a population density of 2.77 capita/km². The West sub-region has a population of 23,895 people and covers a total area of approximately 9,970 km², equating to a population density of 2.40 capita/km². The East sub-region has the smallest population of 14,194 people but covers the smallest total area (4,350 km²), equating to the highest population density of 3.26 capita/km². The RDCK is a unique regional district with over half (52%) of its population residing in electoral areas outside of municipal boundaries.

Population growth estimates were published by BC Stats and expect a population of 84,956 in the year 2046. This equates to an average growth rate of 1.1% annually (calculated with the 2021 census data). This growth rate is similar to the historic growth rate of 5% over the five-year period between the 2016 and 2021 census results.

2.3 Overview of Solid Waste Management & Facilities

The RDCK does not currently provide curbside collection services for garbage, recycling or organics. Member municipalities provide these programs to their residents to varying degrees:

- All nine member municipalities provide curbside collection of garbage, while only five provide curbside recycling collection (City of Castlegar, Village of Nakusp, City of Nelson, Village of Kaslo, and Town of Creston).
- Organic curbside collection is provided by the City of Castlegar and Town of Creston. City of Nelson is currently piloting a self-haul pre-treated organics program.
- Portions of Electoral Areas H, I, and J are the only electoral areas to have curbside recycling services provided by Recycle BC (RBC).

To increase program accessibility, the RDCK operates a network of 24 public-facing waste facilities to manage various waste and recyclable materials and contributes funding to one eco-depot (Nelson Leafs Recycling Centre). The network consists of a mixture of landfills, transfer stations, and recycling depots. All facilities are attended during opening hours, and inaccessible to the public outside of operating hours. The RDCK operates three landfills, two composting facilities, 13 transfer stations, and 22 recycling depots. The two composting facilities and 13 of the recycling depots are located at waste transfer stations or landfill sites. The RDCK partners with the Nelson Leafs Recycling Centre to provide the only full-service eco-depot in the regional district, located in the Central sub-region.

The RDCK identifies each of the 22 recycling depots as either a “core depot” or a “satellite depot” based on the Recycle BC funding approach. Each type provides a different level of service according to the designation. At all depots, the RDCK manages the costs for depot infrastructure, maintenance, staffing, and operations, while Recycle BC provides financial incentives based on the quantity and quality of residential recyclable materials received. Recycle BC also provides the collection bins for residential paper and containers at core depots and funds all post-collection costs, which includes the hauling, processing and marketing of recyclables from the 12 core depots. This allows core depots to accept all Recycle BC material categories (residential recyclables only). Satellite depots accept limited recyclable materials (paper, cardboard, plastic and metal containers and glass) as the RDCK pays for the post-collection hauling for consolidation at the nearest core depot or Recycle BC consolidation point. Although they are not directly funded by Recycle BC, satellite depots were integrated into the waste management network to maintain most of the historical level of local recycling services. As required by Recycle BC, all recycling depots are staffed to assist with proper sorting to reduce contamination of materials.

Transfer station sites accept similar waste materials throughout all sub-regions, including, but not limited to mixed waste (MSW), wood waste, scrap metal, tires and propane tanks. Smaller transfer stations (Boswell, Yahk, and Ymir) accept limited waste types due to collection and storage capacity.

The Organic Waste Diversion Strategy released in 2017 has driven organics initiatives throughout the RDCK focused on diverting organic materials from landfill. RDCK initiatives included the construction of two new composting facilities at the Creston Landfill and the Central (Salmo) Landfill. It also included upgrades to the Grohman Narrows transfer station and Ootischenia Landfill transfer area, allowing the sites to receive residential and commercial organic waste.

Table 2.2 summarizes the facilities operating in each sub-region. Table 2.2.3 summarizes the materials accepted at each facility².

Table 2.2 RDCK Solid Waste Facilities

Sub-Region		Facility Type
East		
1	Boswell Transfer Station	Satellite Recycling Depot & Transfer Station
2	Crawford Bay Transfer Station	Core Recycling Depot & Transfer Station
3	Creston Depot	Core Recycling Depot
4	Creston Landfill	Satellite Recycling Depot, Landfill & Compost Facility
5	Yahk Transfer Station	Satellite Recycling Depot & Transfer Station
6	Riondel	Satellite Recycling Depot
Central		
7	Balfour Transfer Station	Core Recycling Depot & Transfer Station
8	Kaslo Transfer Station	Core Recycling Depot & Transfer Station
9	Marblehead (Meadow Creek) Transfer Station	Satellite Recycling Depot & Transfer Station
10	Grohman Narrows (Nelson) Transfer Station	Satellite Recycling Depot & Transfer Station
11	Central (Salmo) Transfer Station	Transfer Station & Composting Facility
12	Ymir Transfer Station	Satellite Recycling Depot & Transfer Station
13	Salmo	Core Recycling Depot
14	Nelson - Lakeside	Core Recycling Depot
15	Kokanee Park Marina Satellite Depot	Satellite Recycling Depot

² Regional District of Central Kootenay. 2023. Waste & Resource Recovery. Accessed online from <https://www.rdck.ca/EN/main/services/waste-recycling.html>

Sub-Region		Facility Type
16	Nelson Leafs Recycling Centre	Eco-Depot (Private – Public Partnership)
West		
17	Burton Transfer Station	Satellite Recycling Depot & Transfer Station
18	Crescent Valley	Core Recycling Depot
19	Edgewood Transfer Station	Core Recycling Depot & Transfer Station
20	Nakusp Landfill	Core Recycling Depot & Landfill (landfill closing in 2025 and transfer station will be constructed)
21	Ootischenia (Castlegar) Landfill	Core Recycling Depot & Landfill
22	Rosebery Transfer Station	Transfer Station
23	Slocan Transfer Station	Core Recycling Depot & Transfer Station
24	Winlaw	Satellite Recycling Depot
25	New Denver	Core Recycling Depot

Table 2.3 Materials Accepted at RDCK Facilities

Facility	Household Garbage	Commercial Garbage	EPR (i.e. Used Oil and Antifreeze, Paints, etc.)	Recycle BC - Household glass, plastic, and paper products	Recycle BC - Household foam and flexible plastics	Commercial Cardboard & Recycling	Wood	Metal	Yard & Garden Waste	Organics	Tires	MARR Appliances	Propane Tanks	Vehicle Batteries	Mattresses	Construction, Demolition & Renovation (CDR)
East Sub-Region																
1 Boswell Transfer Station	X	X		X			X	X	X		X		X	X		X
2 Crawford Bay Transfer Station	X	X		X	X		X	X	X		X	X	X	X		X
3 Creston Depot				X	X	X										
4 Creston Landfill	X	X		X			X	X	X	X	X	X	X	X	X	X
5 Yahk Transfer Station	X			X												
6 Riondel Satellite Depot				X												
Central Sub-Region																
7 Balfour Transfer Station	X	X		X	X		X	X	X		X	X	X	X		X
8 Kaslo Transfer Station	X	X		X	X	X	X	X	X		X	X	X	X		X
9 Marblehead (Meadow Creek) Transfer Station	X	X		X			X	X	X		X	X	X	X		X
10 Grohman Narrows (Nelson) Transfer Station	X	X		X			X	X	X	X	X	X	X	X		X
11 Central (Salmo) Transfer Station	X	X					X	X	X	X	X	X	X	X		X
12 Ymir Transfer Station	X			X												
13 Salmo Core Depot				X	X	X										
14 Nelson – Lakeside Core Depot				X	X	X										
15 Kokanee Park Marina Satellite Depot				X												
* Nelson Leafs Recycling Centre			X											X		
Western Sub-Region																
16 Burton Transfer Station	X	X		X			X	X			X	X	X	X		X
17 Crescent Valley Core Depot				X	X	*paused										
18 Edgewood Transfer Station	X	X		X	X		X	X	X		X	X	X	X		X
19 Nakusp Landfill	X	X		X	X	X	X	X	X		X	X	X	X	X	X
20 Ootischenia (Castlegar) Landfill	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X
21 Rosebery Transfer Station	X	X					X	X	X		X	X	X	X		X
22 Slocan Transfer Station	X	X		X	X		X	X	X		X	X	X	X		X
23 Winlaw Satellite Depot				X												
24 New Denver Core Depot				X	X	X										

* Nelson Leafs Recycling Centre/Bottle Depot is operated by the Nelson Leafs. The RDCK provides financial support for the collection of non-EPR HHW at this site.

Curbside Collection

The rural curbside collection feasibility study completed in 2020 suggests that a regional curbside collection program was feasible for implementation in select electoral areas. The RDCK undertook public engagement to gain feedback on expanding collection services. In July 2023, the RDCK Board of Directors directed staff to prepare a service establishment bylaw for three-stream collection in portions of Electoral Area F and H, and two-stream collection services in portions of Electoral Area J. In November of 2023, after third readings, the RDCK board directed Staff to submit the Service Establishment Bylaws to the BC Provincial Inspector of Municipalities for approval. This service would expand curbside collection services to an additional 3,350 homes and 7,700 people. The program was required to pass a public referendum, which was not supported, and therefore will not be considered further.

2.4 Waste Flow Mapping

Waste flow was mapped to demonstrate the movement of garbage, recyclables and metal throughout the regional district. Tonnage data for the year 2022 was analysed to identify the initial disposal facility for each sub-region. The analysis included MSW on both a scale and volume basis, other landfilled wastes (asbestos, construction, demolition and renovation (CDR), land-clearing, noxious weeds, rubble, bulky waste and septage), Recycle BC materials, Industrial, Commercial and Institutional (ICI) recyclable materials, biosolids, organic waste, scrap metal, uncontaminated soil, wood waste, and yard and garden waste.

Figures mapping the material flow within each sub-region are provided in Appendix B. The Central sub-region does not have an active landfill, therefore waste materials collected in this sub-region are transferred to Ootischenia Landfill for disposal.

2.5 2023 Waste Composition Study

The RDCK undertook a waste composition study in August of 2023 to evaluate the MSW composition received at the Ootischenia Landfill and Creston Landfill. The waste composition study evaluated MSW originating from residential curbside collection, ICI sector, transfer station and residential drop-off bins, and CDR activities.

The primary waste categories observed in the overall garbage composition from all sectors were compostable organics (24%), followed by paper (14%), plastic (14%), non-compostable organics (11%) and building materials (11%). The overall analysis for all sectors combined determined that approximately 67% of MSW disposed could be diverted from landfill through an existing diversion program, managed either by the RDCK or Extended Producer Responsibility (EPR) organization.

The audit found that approximately 28% of the RDCK’s garbage was made up of paper and plastics combined, however, only 14% of the waste stream was considered recyclable (including glass and metal), due to gaps in Recycle BC’s EPR programming. This 14% also assumes that ICI materials are accepted, which is currently funded 100% by the RDCK as Recycle BC does not accept recyclable materials from this sector. Figure 2.1 highlights the RDCK overall garbage composition (materials ending up in landfill) and Figure 2.2 highlights the diversion potential of the landfilled waste stream.

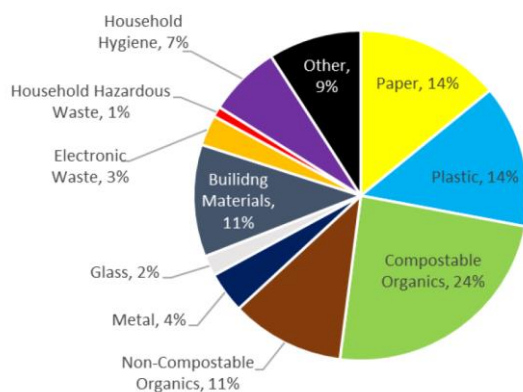


Figure 2.1 RDCK Overall Landfilled Waste Composition

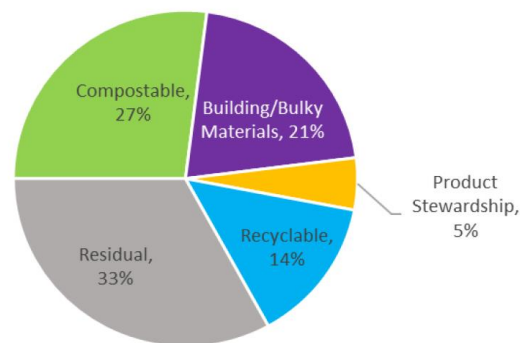


Figure 2.2 RDCK Diversion Potential of Landfilled Waste Stream

The highest diversion potential categories from each sector is summarized below:

- Single family residential: compostable materials represented 35% of the waste composition.
- ICI sector: compostable materials represented 39% of the waste composition.
- Transfer station self-haul: building/bulky materials represented 35% of the waste composition, followed by compostable materials at 12%.
- CDR sector: building/bulky materials represented 89% of the waste composition.

2.6 Waste Reduction and Diversion Initiatives

RDCK waste reduction and diversion programs, services and initiatives apply to all sub-regions and are summarized in Table 2.4.

2.6.1 Recycling

The RDCK's extensive network of 22 recycling depots provide varying levels of services for residential and ICI recycling of Packaging and Paper Products (PPP). This network provides primary PPP recycling services for 52% of the RDCK population living in rural areas and 4% of the urban population living in smaller municipalities without curbside recycling collection. The network provides secondary service for the remaining 44% of the RDCK population living in urban settings, who receive curbside recycling collection through their respective municipality.

Some EPR and product stewardship programs are available at RDCK transfer stations and landfills to provide residents with access to additional diversion programs. This includes materials such as tires, propane tanks, vehicle batteries and major appliances. The waste composition study indicated that product stewardship materials comprise 5% of overall disposed waste. This consisted of 3% electronic waste, 1% deposit beverage containers, and 1% household hazardous waste (HHW). To increase access to HHW disposal, the RDCK coordinates free annual HHW roundups in six locations across the region to collect non-EPR HHW. These events also collect non-PPP EPR materials (such as paint, motor oil, electronic equipment, lighting, small appliances, etc.) in areas with reduced access to EPR programs. The RDCK also supports the year-round collection of residential non-EPR HHW at the Nelson Leafs Centre. The RDCK plans to establish similar eco-depots in Creston, Castlegar and Nakusp in 2025.

2.6.2 Organics Diversion

The RDCK is in the process of implementing a robust organics waste diversion strategy which includes the commissioning of two new organics facilities and four organics drop-off locations. The 2023 waste composition study can be used as a baseline to track the performance of this system over time with the goal to lower the composition of compostable food waste and paper currently present in single family and ICI sector garbage. The RDCK plans to undertake another waste audit in 2028, in which composition can be compared and program performance evaluated.

The RDCK promotes backyard composting on their website to increase diversion where curbside collection or self haul of organics is not feasible.

2.6.3 Waste Reduction and Reuse

The Region may consider partnerships with local non-profits, organizations and municipalities to enhance and leverage education, awareness and services within the region. This may be done through securing additional recycling depot partnerships, much like the Nelson Leafs Recycling Center, and partnering with non-profit organizations such as Ocean Ambassadors Canada, who can provide programs such as zero waste coaching for small businesses (made available with regional funding support).

Regulatory approaches may include exploring amendments to the Resource Recovery Facilities Regulatory Bylaw to include landfill bans on recyclable materials or mandating three stream collection within the ICI sector. The RDCK currently incentivizes diversion from landfill by charging lower rates for materials such as wood and metal, compared

to garbage. Assessing tipping fees over time to ensure they align with diversion goals and best practices will continue to promote the user pay approach and may increase waste diversion, reduction and reuse.

2.6.4 Education and Awareness

The RDCK's public engagement platform is a system strength, that allows for community led solutions by enabling robust public feedback and input to improve current systems and future programs and services.

Table 2.4 RDCK Waste Reduction and Diversion Initiatives

	Initiative	Description	Performance & Recommendations
Recycling	Recycling Facilities for Packaging and Paper Products (PPP)	<ul style="list-style-type: none"> Of the 22 RDCK recycling depots, the 12 Core Depots collect all Recycle BC items. The 10 Satellite Depots collect only glass, paper and plastics. Commercial recycling (cardboard) is currently collected at seven facilities (one is currently on hold). 	<ul style="list-style-type: none"> The 2023 waste audit indicated 14.5% of single-family garbage was recyclable paper and plastic. Of this 14.5%, 9% are accepted for recycling at all 22 RDCK recycling facilities, while 5.5% (foam, plastic film and flexible packaging) are only accepted at the 12 core depots. Of the overall garbage landfilled, foam, plastic film and flexible packaging made up 3.8%. Enhanced public education and awareness should be implemented to increase diversion rates. Continued advocacy for fair and equitable access to Recycle BC programs to rural populations should be undertaken on a Regional and Provincial level. Ensure facilities have clear educational signage and prompts to direct users to appropriate bins and reduce contamination. Signage should direct users to other facilities where applicable to encourage recycling or reuse.
	Other Extended Producer Responsibility (EPR) and Product Stewardship Programs	<ul style="list-style-type: none"> The Nelson Leafs Recycling Centre (open year-round), collects EPR materials such as paint, used motor oil, electronics, batteries, lighting products, small appliances etc. Product Stewards collect automotive batteries, tires, propane tanks, and major appliances directly from 13 RDCK transfer stations and landfills. 	<ul style="list-style-type: none"> The 2023 waste audit indicated that 5% of garbage going to landfill was EPR materials. Continue the partnership service model as demonstrated with the Nelson Leafs Recycling Centre into the future and to additional locations throughout the region. Advocate for increased EPR presence at events to collect expanded list of materials for increased diversion. Enhanced promotion of disposal options for these materials may increase diversion. Conduct a cost analysis or pilot program to include new EPR materials such as mattresses, electric vehicle batteries and other compressed canisters³ (such as fire extinguishers as propane canisters are already accepted at 13 RDCK facilities).
	Household Hazardous Waste (HHW) Collection	<ul style="list-style-type: none"> Annual HHW collection events hosted in six communities around the region provide an opportunity to dispose of up to 35 different residential HHW materials for free. Some EPR materials, such as electronics, batteries, lighting, small appliances, etc. are also collected at these events. The RDCK partners with the Nelson Leafs Recycling Centre for increased access to non-EPR HHW recycling services. Commercial HHW is not accepted at the eco-depot or the events. 	<ul style="list-style-type: none"> The 2023 waste audit indicated that 1% of garbage going to landfill was HHW. In 2022, the RDCK collected 0.31 kg per capita of HHW at the events and 2.76 kg per capita at the eco-depot. Continue with annual HHW collection events which provide access to disposal programs to the regions under serviced areas. Advocate for increased EPR presence at events to collect expanded list of materials for increased diversion.
Organics Diversion	Compost Facilities	<ul style="list-style-type: none"> Two composting facilities have been constructed to accept organics from the residential, agricultural, and ICI sectors (Creston facility launched in 2022 and Central facility launched in 2023). Customers will be able to drop off organics at four waste facilities. 	<ul style="list-style-type: none"> In 2023, 27% of the overall garbage landfilled was compostable materials (organics and food soiled paper). A follow-up waste composition study is planned for 2028 to evaluate program performance. Monitor incoming organics tonnage and service costs at each location annually to observe disposal trends by source, type and location. Increase collection points to improve access where capacity is required and economically feasible. Continue to undertake periodic waste audits and composition studies to understand diversion trends, challenges and opportunities for increased organics and recyclables diversion. A large portion of organics in the garbage stream comes from ICI sources. Landfill bans or surcharges on ICI organics in the garbage stream is a common practice throughout Canada and may provide as an effective incentive to divert this material stream to composting.
	Backyard and Small-Scale Composting Promotion	<ul style="list-style-type: none"> The RDCK provides online educational resources via their website to the public to promote backyard composting to increase organics diversion. This supports organics diversion in areas where customer drop off is not feasible or desirable. The RDCK has supported small-scale composting in the Villages of Silverton and New Denver since 2021 by partially funding the development of a pilot program that uses Joracans. 	<ul style="list-style-type: none"> Educational workshops facilitated by the RDCK or local partners (in person and online) providing instruction on backyard composting. RDCK distribution of animal resistant backyard composters to households at subsidized cost. Jora composters are animal resistant self-contained units commonly used in communities with active bear populations. The RDCK could explore grant funding programs such as the Clean BC Organics Infrastructure and Collection Program to support subsidies.
	Free Yard and Garden Waste Events	<ul style="list-style-type: none"> Annually, in April and October, three East sub-region waste facilities accept yard and garden waste at no charge to the resident. Annually, in May and October, 11 of the West and Central sub-region waste facilities accept yard and garden waste at no charge to the resident. 	<ul style="list-style-type: none"> Consider discontinuation of the free yard and garden waste collection. Yard and garden waste has a cost to manage and is not at risk of being landfilled. The tipping fee for yard and garden waste could be increased to align with the cost of providing the service.
Waste Reduction & Reuse	Diversion Incentives	<ul style="list-style-type: none"> To encourage diversion, tipping fees were increased 10% on March 1, 2023, and an additional 10% on January 1, 2024 at all RDCK landfills and transfer stations. Each sub-region has its own Fee Schedule. The Resource Recovery Facilities Regulatory Bylaw doubles tipping fees for loads containing more than 10% recyclable materials. 	<ul style="list-style-type: none"> The RDCK had a 32% diversion rate in 2022. Continue to promote diversion through user pay approach. Review of tipping fees every five years to consider adjustments to mixed waste and recyclables.

³ https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/extended_producer_five_year_action_plan.pdf

	Initiative	Description	Performance & Recommendations
		<ul style="list-style-type: none"> – Recycling depots have no tipping fees to encourage recycling. – The RDCK has 13 transfer stations and landfills in which materials such as scrap metal, wood, and soil (landfills only) are accepted for diversion or repurposing. These materials as well as food waste have lower tipping fees than mixed waste to encourage separation and diversion. 	<ul style="list-style-type: none"> – Explore updates to the Resource Recovery Facilities Regulatory Bylaw to systematically divert additional materials from Landfill, such as landfill bans on recyclable and compostable materials. Bans along with revised tipping fee schedules will generate additional revenue from incoming waste and fines.
	Trash to Treasure Events	<ul style="list-style-type: none"> – The RDCK and Regional District of Kootenay Boundary host Trash-to-Treasure days annually in April and October. – The one-day event allows residents to swap unwanted items on the roadside to promote reuse and circular behaviours. 	<ul style="list-style-type: none"> – Continue this initiative to promote reuse within the community. – Events can be supplemented with promotion of educational resources on other zero waste initiatives such as textile waste reduction.
	Resource Recovery Plan	<ul style="list-style-type: none"> – The RDCK Board has directed staff to incorporate zero waste as a long-term goal in the Resource Recovery Plan. – This philosophy is the foundation of the Resource Recovery Plan and guides future actions and policies. 	<ul style="list-style-type: none"> – The RDCK has fulfilled and/or is pursuing key commitments within the RRP such as consultation and study on regional curbside collection, waste audits, organic waste diversion and system efficiency and equitability studies. – Continue to prioritize and integrate zero waste initiatives throughout all RDCK operations and departments.
	Reuse Centres	<ul style="list-style-type: none"> – There are currently six reuse centres at RDCK waste facilities, with one additional centre pending implementation. – This allows for the exchange and reuse of household items in good working condition to promote reuse and landfill diversion. 	<ul style="list-style-type: none"> – Continue to expand and promote this service to additional waste facilities where economically feasible.
Education & Awareness	Resource Recovery Education Program	<ul style="list-style-type: none"> – The program employs year-round “waste spotters” at all scaled facilities. – Waste spotters screen loads of waste arriving at various disposal facilities for prohibited, controlled and recyclable items. – They also educate and inform customers on resource recovery policy and initiatives, waste diversion and zero waste practices and answer questions. 	<ul style="list-style-type: none"> – Continue this program throughout the RDCK. – Monitor common materials contaminating recyclables or being landfilled to support education and awareness initiatives or development of new recycling programs.
	Waste Diversion Education & Promotion	<ul style="list-style-type: none"> – Promotion of recycling and reuse via distribution of Recycle BC and RCBC resources online. 	<ul style="list-style-type: none"> – Continue promotion of these resources online via the RDCK website, at events and within distributed household materials. – Develop ICI specific recycling resources to provide businesses and institutions with guidance and contacts to increase recycling and composting. – Explore partnerships with non-profits to provide local businesses with zero waste coaching, education, training and operational support, such as the Ocean Ambassadors Canada Zero Waste Coaching for Small Businesses program.
	Wildsight Beyond Recycling program	<ul style="list-style-type: none"> – The RDCK supports the classroom based Beyond Recycling education program developed and delivered by Wildsight in the Columbia Basin. The program provides environmental education in local elementary schools, consisting of 25 lessons, projects, and field trips, as well as additional student and teacher resources and extension activities. – A minimum of five classrooms in the RDCK participate in the program every year. A key component of the program is the “waste field trip” in which students tour an RDCK landfill with RDCK staff highlighting solid waste management practices and key waste diversion messages. 	<ul style="list-style-type: none"> – Continue with this program as a key learning opportunity for youth within the region.
	Public Engagement	<ul style="list-style-type: none"> – The RDCK engagement website provides an opportunity to gain feedback and input on various waste diversion programs. – Currently, the RDCK has engaged the public on ICI organics, ICI used cooking oil, and organic waste diversion initiatives. 	<ul style="list-style-type: none"> – Continue to engage residents with this platform as an avenue to gain valuable feedback and input on challenges and barriers and new programs and services.

2.7 Waste Metrics

Metrics for various waste categories were prepared with facility scale data and volume data provided by the RDCK. The metrics outline waste generation and diversion rates throughout the respective sub-regions and overall RDCK on a tonnage and per capita basis.

It should be noted that the Central sub-region is the only sub-region without a landfill. Therefore, materials that are only accepted at landfills (e.g. soils, biosolids, asbestos, etc.) generated by residents and the ICI sector within the Central sub-region are transported to the Ootischenia Landfill in the West sub-region for disposal. As a result, some values within the tables below may be artificially low in the Central sub-region and higher in the West sub-region.

In addition, the recycling data reported only includes Recycle BC data collected from RDCK Recycling Depots. This does not include curbside recycling collection data from municipalities and rural areas that operate under Recycle BC contracts (Castlegar, Nakusp, Nelson, Kaslo, Creston, portions of Areas I and J) or privately hauled ICI recycling. As a result, the calculated diversion rates below are underestimated.

Table 2.5 Annual RDCK Tonnage Disposed and Diverted (2022)

Material	West Sub-Region	Central Sub-Region	East Sub-Region	RDCK (Total)
MSW (Scale)	10,332	7,087	5,733	23,152
MSW (Volume)	986	2,289	490	3,765
Other Waste Landfilled ¹	2,391	1,178	946	3,585
Recycling, Diversion and Re-use ²	6,592	2,379	4,219	13,190
Tires	11	18	15	44
Organics (Food, Yard & Garden) ³	314	1,604	1,009	2,927
Total Landfilled (tonnes)	13,709	9,625	7,168	30,502
Total Diverted or Repurposed (tonnes)	6,917	4,001	5,243	16,161
Total Generated (tonnes)	20,626	13,626	12,411	46,663
Diversion Rate (%)	34%	29%	42%	35%
Septage ⁴	5,395	1,217	0	6,612

1. Includes asbestos, construction, demolition and renovation (CDR) waste, land-clearing waste, noxious weeds, biosolids, rubble, and bulky waste.

2. Includes wood, Recycle BC materials, metal, soil, and HHW.

3. Includes mostly yard and garden materials, as the collection of food waste started in the East in mid-2022, and food waste collection had not yet started in the Central and West as of 2022.

4. Septage is reported separately as it is managed as a different waste stream.

Waste generation and diversion metrics were developed on a per capita basis for each material type using Statistics Canada 2021 Census of Population, shown in Table 2.6 below.

Table 2.6 Per Capita Metrics by Waste Type (2022)

Waste Type	West Sub-Region (kg/person)	Central Sub-Region (kg/person)	East Sub-Region (kg/person)	RDCK (kg/person)
Asbestos	7 ¹	0 ¹	3	3
Biosolids	1 ¹	0 ¹	<1	<1
Construction, Demolition and Renovation Waste (CDR)	91 ¹	10 ¹	64	53
Household Hazardous Waste (HHW)	<1	7	<1	3
MSW or Mixed Waste	475 ¹	384 ¹	439	431
Food Waste ²	0	0	10	2
Residential and Commercial Recycling	28 ³	46 ³	37 ³	37
Scrap Metal	16	10	4	11
Soils	200 ¹	<1 ¹	202	122
Tires	<1	<1	1	<1
Wood Waste	32	35	54	38
Yard and Garden Waste	13	66	61	45
Total Landfilled	574	394	505	488
Total Diverted	290	118	333	222
Total Generated	863	512	838	710
Septage ⁴	208	38	0	94

1. Values in the West sub-region are artificially high and values in the Central sub-region are artificially low as most soils, all biosolids and asbestos, as well as some CDR and mixed waste generated in the Central sub-region are collected in the West sub-region where they are landfilled or used in operations at the Ootischenia Landfill.

2. Food waste values are low as collection had not yet started in the Central and West as of 2022 and the collection of food waste started in the East in mid-2022.

3 This excludes recycling data from municipalities and rural areas with Recycle BC curbside collection programs, as well as any privately collected ICI recycling; therefore, these values will be underestimated.

4 Septage is reported separately as it is managed as a different waste stream and is neither landfilled nor diverted.

The largest category of material managed in the RDCK is mixed waste, followed by soil, septage, yard and garden, CDR and wood waste. It is anticipated that as organics diversion programs mature, food waste diversion will increase significantly, potentially above 100 kg/person, with a corresponding reduction in mixed waste.

Bulking agents, such as yard and garden waste and chipped clean wood, are required to facilitate the composting process of food waste. As a new composting system is implemented, the volume of bulking agents required is high. However, as the program matures, the bulking agents ('overs') are recycled through the process, and the volume of bulking agents required is expected to decline. Yard waste, in addition to the minimum needed as a bulking agent, requires processing and storage requirements, resulting in additional costs.

The large volume of septage in the West sub-region is indicative of the high number of rural houses using septic tanks, and the low hours of operation at the Central landfill which results in many septage haulers from the Central sub-region disposing at Ootischenia landfill.

It should be noted that the relatively low tonnage of recyclables presented is not necessarily reflective of a low recycling rate. Recyclable materials generally have a low bulk density (e.g. cardboard, containers, etc.) and significant volumes of material may be diverted from landfill.

The large volume of soil reported may be a result of the low tipping fee for this material. Soil is required for landfill operations, and typically for small landfills a 1:6 to 1:8 soil ratio is used. The current soil acceptance ratio of approximately 1:5 indicates that the volume of soil currently accepted is slightly higher than needed for landfill operations. It also indicates that the tipping fee could be increased. It should be noted that a portion of the soil received in 2020-2022 is from RDCK projects and was accepted to alleviate a past deficit. The amount of soil received by landfills is not as sensitive to the tipping fee, as it is related to the capital projects in the immediate vicinity, and the ease of access for contractors. It is likely that if the tipping fee for soil was increased to match that of mixed waste, and the quantity of soil accepted would be closer to 1:6 to 1:8.

3. Tipping Fee Cost Recovery Assessment

The RDCK is committed to establishing a user pay system, in which users who generate waste pay for its disposal, and tipping fees cover a significant portion of the cost to manage most materials. The RDCK resource recovery system is funded through both tipping fees collected at waste facilities and taxation based on assessed property value. This is done as existing tipping fees alone cannot cover the entirety of operating costs. Some materials, such as wood and metal, are subsidized through taxation such that tipping fees can be reduced to incentivize diversion. Tipping fee structures developed for each of the three sub-regions are based on waste material type, charging weight-based fees or volume-based fees as set out in the Resource Recovery Facilities Regulatory Bylaw No. 2905, 2023. Due to rising costs, tipping fees were increased 10% on March 1, 2023, and an additional 10% on January 1, 2024 at all RDCK landfills and transfer stations.

3.1 Tipping Fee Cost Recovery Model Development

A tipping fee cost recovery assessment model (the Model) was developed to analyse the cost recovery of the existing tipping fee structure. This was completed by determining the cost to manage each material and identifying any gaps between management costs and tipping fee revenue. This was evaluated for each sub-region, as costs to manage materials vary dependant on the facilities and infrastructure available in each sub-region. In addition, the annual budgets and tax requisitions are managed separate for each sub-region.

3.1.1 Inputs

To develop the model, the following data inputs were provided by RDCK:

- Operational and administrative expenses for fiscal years 2020, 2021 and 2022
- Tipping fee revenue for fiscal years 2020, 2021 and 2022
- Tonnages received for fiscal years 2020, 2021 and 2022
- Capital expenses from 2016 through 2022
- RDCK's capital plan for 2023 through 2027
- 10 Year Financial Plans for Resource Recovery

3.1.2 Methodology

Recognizing the complexity of RDCK's resource recovery system and the associated costs, a method for allocating and visualizing costs was determined in collaboration with the RDCK project team. The model incorporates the inputs in section 3.1.1 to provide enhanced insight into the cost of managing waste types across the RDCK.

As shown in Table 3.1, costs were assigned to three subcategories: Operations and Maintenance Costs, Capital Costs and Administrative Costs. This allocation method was chosen with input from the RDCK to articulate the various cost center expense data provided and to create a simple, yet informative visual for understanding associated material costs. The costs were represented as a cost per tonne.

It should be noted that costs related to the operations and maintenance of the HB Tailings Facility were provided by RDCK but excluded from the analysis.

3.1.2.1 Operations and Maintenance Costs

Operations and Maintenance (O&M) costs were derived from Resource Recovery expense data (Services S186-S188, A116-A120, and A102) provided by RDCK and organized into the following three categories:

Table 3.1 Operations and Maintenance Cost Category Definitions

Category	Definition
Direct Operations & Maintenance	Line-item costs that were allocated to individual materials ¹
Indirect Operations & Maintenance	Costs that were related to the operations and/or maintenance of the RDCK resource recovery, but not directly material related ²
Operations & Maintenance Related Salaries	Salaries, benefits and overtime costs incurred that were not considered administrative and were directly applicable to O&M related activities ³

¹ A vendor list derived from the expenses provided was reviewed by RDCK and where possible, costs were allocated to specific materials. This improves the model validity by assigning true costs to materials in lieu of a simple method of applying across all materials.

² Where direct material allocations were not possible, costs were allocated by three-year average tonnage percentages to produce a cost per tonne.

³ Through discussions with RDCK, an allocation matrix was developed to assign O&M-related salary costs to materials where possible. Salary expenses for six O&M employee classifications were allocated to specific materials based on the proportion of each material managed by the respective type of employee (% based on tonnage, only included materials that were greater than 0.5% of the waste stream).

3.1.2.2 Capital Costs

The RDCK provided two capital datasets, one representing capital expenditures from 2016 through 2022 and the capital plan from 2023 through 2027. In the original analysis, these costs were considered separate and reflected in the model as Past and Future Capital Costs. Upon discussion with RDCK, it was determined to consolidate capital into one cost as a reflection of what RDCK can anticipate the average annual capital burden to be over a forward-looking period of 10-years, including both past and future capital costs. Capital costs include expenses associated with all assets, infrastructure, and landfill development and closure costs.

RDCK Staff identified individual capital cost line items were determined to be paid for through either financing, reserves or grants, where applicable. Originally excluded from the capital considerations, capital expenses paid for by reserves were included to accurately capture the cost of RDCK capital projects. Line items that were financed used the Municipal Finance Authority of BC's Long Term Lending Rates to determine an expected borrowing cost, with 3.6% being used in the model.

Additionally, capital costs were allocated to a specific material type where possible or, where not possible, given an 'All' category where costs were allocated across all materials based on three-year average fraction of tonnage managed.

Each capital cost was then assigned two remaining categories to complete the analysis, lifespan and whether the cost was recurring. Lifespan was determined to be either a period of 10 or 25 years, and capital items to be recurring (i.e. vehicles or bins) were identified. For those items with recurring costs, costs were inflated at the end of their respective lifespan for the duration of analysis years in the model based on an estimated annual inflation rate of 2%.

3.1.2.3 Administrative Costs

Administrative costs were estimated based on expenses in the Resource Recovery Services (S186-S188, A116-A120, and A102) as well as expenses related to transfers to other Services (A100, IT, and General Admin) provided by the RDCK. These costs reflected both the administrative and technical salary expenses incurred by the RDCK associated with the facilitation of the resource recovery program, as well as the portion of salaries and expenses from IT and RDCK general administration allocated to Resource Recovery. It also includes expenses related to program communications, advertising, insurance, legal, licensing and permit fees, Director stipends, mileage and travel expenses, RDCK vehicles, staff education, training, and travel, etc.

Since administrative expenses are not directly tied to specific materials, for the purposes of the model administrative expenses were applied equally across all materials to determine a cost per tonne for each administrative category (salaries and benefits, other administration expenses). Based on this allocation, administrative costs are directly proportional to the tonnage of a material managed.

3.1.3 Assumptions and Limitations:

During the development of the model, data limitations were noted, and assumptions were made to deliver an efficient and reflective model for RDCK to understand associated costs.

Identified data limitations in the review phase were resolved through discussions with RDCK staff. Key assumptions used in development of the Model include:

- Tonnage: Based on three-year average of tonnage data from 2020-2022⁴.
 - Tires: The RDCK is provided with tire collection tonnage from Tire Stewardship BC.
 - Household Hazardous Waste (HHW): Some HHW data was converted from litres to tonnes using best estimates
 - Organic Waste: As the organics program (food waste) had not yet been fully implemented in the study period, annual organics tonnages (and associated revenues) were estimated based on monthly tonnages received in 2023 and in 2024 to date.
- Salaries: The model used 2022 salary data for RDCK, as using an average would underestimate the salary burden of the resource recovery program as salaries are expected to increase year over year. To reflect expenses as accurately as possible, the model also incorporated new salaries that did not exist in 2022 (i.e. projects advisor and three field supervisors).
- Revenue: Based on three-year average tipping fee revenues from 2020-2022.
 - Tipping fees increased by 10% in 2023 and an additional 10% in 2024, however full fiscal year financial data was not available for these years when the model was built. To analyze cost recovery for each material as accurately as possible, the model shows both the 2020-2022 revenue per tonne as well as the calculated revenue per tonne based on the 2024 tipping fees.
 - The model used a conversion factor to convert the revenue collected from volume-based tipping fees to tipping fee per tonne to develop an estimated revenue per tonne of material received.
- HB Tailings Facility expenses were removed as per discussions with RDCK.
- The scope of work was modified from the initial proposal due to the fact that differences in cost recovery between rural versus urban waste, container/volume versus scaled waste, compacted versus non-compacted waste, and chipped versus non-processed yard and garden and wood waste could not be determined with the data available.

⁴ Conversion factors were used to estimate tonnages of some materials, such as yard and garden and CDR as not all sites have scales.
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3.2 Model Results and Recommendations

The allocation of costs by material type are presented in the tables below. The Model outputs for the cost of managing 16 waste material types are broken down for each sub-region and the overall RDCK. The 16 waste material types and the estimated costs associated with managing each material are summarized. The cost to manage values in the tables below are estimates as several assumptions were made in the allocations of costs. However, these values can be considered accurate to +/- \$10/tonne for large throughput waste types (i.e. mixed waste, CDR, septage, wood, soil, yard and garden and recyclables).

These values were used to estimate the percent cost recovery from tipping fees. The cost recovery is slightly over estimated as the 2024 tipping fee revenue is compared to the costs from 2020-2022. Where tipping fee revenue covers less than 100% of the cost, the balance is currently covered through taxes. Some materials, such as recyclables and HHW, have no tipping fees and therefore are fully funded through taxation and/or other incentives, such as Recycle BC. Typically, in regional solid waste operations, revenue from mixed waste tipping fees is set higher than cost to manage to partially subsidize diversion costs for materials with lower or no tipping fees.

The model results are presented as follows:

- Table 3.3 – East Sub-Region Costs and Revenues per tonne per material
- Table 3.4 - Central Sub-Region Costs and Revenues per tonne per material
- Table 3.5 – West Sub-Region Costs and Revenues per tonne per material
- Table 3.6 - RDCK Overall Cost and Revenues Per Tonne Per Material

3.2.1 East Sub-Region Costs and Revenues

The cost to manage mixed waste, organic waste, rubble, scrap metal, wood, yard and garden, and soils is significantly higher than the revenue received, indicating that tipping fees are not recovering the cost of managing these materials in the East sub-region.

The cost of organics management is very high as compared to the revenue received. As engagement in the program increases (resulting in increased tonnage) the program is anticipated to increase the amount of tonnes processed which will decrease the cost per tonne to manage, but overall the program will be at a low scale due to the small population served by the facility and full cost recovery via tipping fees is not likely possible at this scale of operation.

The cost of managing mixed waste is higher than the tipping fee charged. This is due to the small population in the East sub-region resulting in lower economies of scale. The revenue from mixed waste in the East sub-region is approximately \$950,000 per year versus an estimated cost of \$1,220,000 to manage mixed waste.

Overall, the East sub-region recovers approximately 53% of system costs through tipping fees and the rest through taxation. On a per capita basis taxation is approximately \$77 per person.

Table 3.3 East Sub-Region Costs and Revenues per Tonne of Material

Waste Type	Cost to Manage (\$/tonne)	Tipping Fee Revenue (\$/tonne)	2024 Tipping Fee (\$/tonne)	Tipping Fee Cost Recovery (%)	% of Waste Managed (2020-2022 average)
Asbestos	\$183	\$505	\$302.50	276%	0.4%
Biosolids	\$-	\$-	\$60.50	-	-
Bulky Waste	\$183	\$246	\$151.25	135%	<0.1%
Construction, Demolition & Renovation Waste	\$183	\$222	\$242.00	122%	4.9%
Land Clearing	\$183	\$243	\$242.00	133%	0.2%

Waste Type	Cost to Manage (\$/tonne)	Tipping Fee Revenue (\$/tonne)	2024 Tipping Fee (\$/tonne)	Tipping Fee Cost Recovery (%)	% of Waste Managed (2020-2022 average)
Mixed Waste	\$183	\$144	\$151.25	79%	61.7%
Organic Waste	\$613	\$84	\$96.75	14%	0.4%
Rubble	\$183	\$31	\$53.25	17%	2.4%
Scrap Metal	\$196	\$97	\$48.50	49%	0.6%
Septage	\$-	\$-	\$-	-	-
Wood	\$191	\$73	\$78.75	38%	5.9%
Yard & Garden	\$135	\$23	\$60.50	17%	9.4%
Soils	\$95	\$22	\$21.75 (uncontaminated)/ \$48.50 (waste soil)	23%	9.0%
Tires	\$106	\$301	varies	284%	0.1%
Recycling	\$571	\$-	\$-	-	5.0%
Household Hazardous Waste	\$6,411	\$-	\$-	-	0.1%
Total	\$2,323,045	\$1,224,725	-	53%	-

3.2.2 Central Sub-Region Costs and Revenues

The costs to manage materials in the Central sub-region are generally higher as there is no active landfill in this sub-region, so all materials for disposal must be hauled to the Ootischenia Landfill in the West sub-region.

The tipping fees do not cover the cost to manage materials of a significant quantity (over 1%). The cost to manage mixed waste, organic waste, wood, yard and garden, soils, scrap metal and septage remains significantly higher than the revenue received indicating that tipping fees are low for these materials in the Central sub-region.

Overall, the Central sub-region recovers approximately 48% of system costs through tipping fees and the rest through taxation. On a per capita basis taxation is approximately \$96 per person.

Table 3.4 Central Sub-Region Costs and Revenues per Tonne of Material

Waste Type	Cost to Manage (\$/tonne)	Tipping Fee Revenue (\$/tonne)	2024 Tipping Fee (\$/tonne)	Cost Recovery (%)	% of Waste Managed (2020-2022 average)
Asbestos	\$-	\$-	\$-	-	-
Biosolids	\$-	\$-	\$-	-	-
Bulky Waste	\$-	\$-	\$-	-	-
Construction, Demolition & Renovation Waste	\$233	\$260	\$242	112%	0.8%
Land Clearing	\$-	\$-	\$242	-	-
Mixed Waste	\$233	\$180	\$151	78%	59%

Waste Type	Cost to Manage (\$/tonne)	Tipping Fee Revenue (\$/tonne)	2024 Tipping Fee (\$/tonne)	Cost Recovery (%)	% of Waste Managed (2020-2022 average)
Organic Waste	\$202	\$127	\$96.75 / \$142.00 ²	63%	7.8%
Rubble	\$233	\$57	\$ 53.25	25%	0.4%
Scrap Metal	\$174	\$78	\$48.50	45%	1.6%
Septage	\$106	\$57	\$70	54%	7%
Wood	\$239	\$78	\$78.75	33%	5.9%
Yard & Garden	\$166	\$28	\$60.50	17%	9.5%
Soils	\$101	\$22	\$21.75	22%	<0.1%
Tires	\$136	\$353	varies	260%	0.2%
Recycling	\$1,039	\$-	\$-	0%	6.6%
Household Hazardous Waste	\$1,195	\$-	\$-	0%	1%
Total	\$4,465,275	\$2,124,284	-	48%	-

¹This value is reflective of the Central and West Sub-Region organics service (not just Central).

² out of region rate

3.2.3 West Sub-Region Costs and Revenues

The West sub-region has the highest throughput facility and consequently the lowest overall costs per tonne for mixed waste and other landfilled materials. The revenue received for mixed waste is higher than the cost for managing it which could allow for subsidization of the regional system. However, it doesn't currently as tipping fee revenue cannot be transferred between sub regions.

The cost to manage wood, soils and septage, as well as biosolids, rubble, scrap metal, and yard and garden materials remains significantly higher than the revenue received indicating that tipping fees are low for these materials in the West sub-region.

The cost to manage soil is higher than the tipping fee received, and on average more soil was received than is necessary to meet landfill airspace utilization targets. A higher tipping fee that at least matches the cost to manage the material may result in less soil being received. A lower tipping fee could be considered for larger projects if additional soil is needed.

Overall the West sub-region recovers approximately 86% of system costs through tipping fees and the rest through taxation. On a per capita basis taxation is approximately \$23 per person. The West sub-region seems to be benefiting from hosting the regional landfill for the West and Central sub-regions through reduced hauling costs and through the collection of a large amount of the commercial tipping fees from both sub-regions.

Table 3.5 West Sub-Region Costs and Revenues per Tonne of Material

Waste Type	Cost to Manage(\$/tonne)	Tipping Fee Revenue (\$/tonne)	2024 Tipping Fee(\$/tonne)	Cost Recovery (%)	% of Waste Managed (2020-2022 average)
Asbestos	\$146	\$336	\$302.50	231%	1%
Biosolids	\$78	\$60	\$60.50	77%	1%
Bulky Waste	\$146	\$266	\$266.25	183%	0%
Construction, Demolition & Renovation Waste (CDR)	\$146	\$237	\$242.00	163%	7%
Land Clearing	\$146	\$244	\$242.00	168%	0%
Mixed Waste	\$146	\$170	\$151.25	116%	42%
Organic Waste	\$38	\$-	\$96.75	-	0%
Rubble	\$146	\$54	\$53.25	37%	1%
Scrap Metal	\$92	\$69	\$48.50	75%	1%
Septage	\$78	\$58	\$70.00	74%	20%
Wood	\$149	\$70	\$78.75	47%	3%
Yard & Garden	\$168	\$30	\$60.50	18%	1%
Soils	\$78	\$48	\$21.75 (uncontaminated)/ \$48.50 (waste soil)	61%	21%
Tires	\$118	\$367	varies	311%	0%
Recycling	\$701	\$-	\$ -	-	2%
Household Hazardous Waste	\$5,284	\$-	\$ -	-	0%
Total	\$3,772,110	\$3,234,943	-	86%	-

¹This value is included in the Central sub-region organics service.

3.2.4 Overall RDCK Costs and Revenue

The Table 3.6 below presents a regional perspective if tipping fee revenue was shared between the sub-regions. Based on the inputs and allocations in the model, overall, the cost of mixed waste management is slightly below the revenue received which indicates that mixed waste tipping fees are not covering the cost of managing mixed waste in addition to not subsidizing diversion of other materials.

It should be noted that incentives or rebates are received for scrap metal and recycling. Revenues from this incentive when added to the tipping fee revenue for scrap metal fully recovers the RDCK’s cost to manage this material. Recycle BC incentives do not cover the cost of recycling operations, therefore recycling is heavily subsidized through taxation. Recycle BC is currently in the process of reviewing its incentive structure.

Overall, the RDCK recovers approximately 52% of system costs through tipping fees and the rest through taxation. On a per capita basis taxation is approximately \$81 per capita although taxes are not calculated based on the RDCK as a whole but by sub-region.

Table 3.6 Overall RDCK Costs and Revenues per Tonne of Material

Waste Type	Cost to Manage (\$/tonne)	Tipping Fee Revenue (\$/tonne)	2024 Tipping Fee (\$/tonne)	Cost Recovery (%)	% of Waste Managed (2020-2022 average)
Asbestos	\$193	\$364	\$302.50	189%	0.4%
Biosolids	\$88	\$61	\$60.50	69%	0.4%
Bulky Waste	\$193	\$261	\$266.25	135%	0.0%
Construction, Demolition & Renovation Waste	\$193	\$235	\$242.00	122%	4.6%
Land Clearing	\$193	\$246	\$242.00	127%	0.1%
Mixed Waste	\$193	\$167	\$151.25	87%	51.5%
Organic Waste	\$284	\$118	\$96.75	42%	1.0%
Rubble	\$193	\$43	\$53.25	23%	1.0%
Scrap Metal	\$144	\$75	\$48.50	52%	1.3%
Septage	\$101	\$58	\$70.00	57%	12.3%
Wood	\$199	\$74	\$78.75	37%	4.6%
Yard & Garden	\$163	\$26	\$60.50	16%	5.3%
Soils	\$88	\$44	\$21.75 (uncontaminated)/ \$48.50 (waste soil)	50%	12.7%
Tires	\$125	\$345	varies	275%	0.1%
Recycling	\$933	\$-	\$ -	-	4.2%
Household Hazardous Waste	\$1,664	\$-	\$ -	-	0.3%
Total	\$10,573,784	-	\$6,583,952	62%	-

3.2.5 Tipping Fee Recommendations

Of the high throughput materials (those greater than 3% of the waste stream), the costs to manage mixed waste, septage, wood, yard and garden and soils are significantly higher than the tipping fee revenues and therefore changes to the tipping fee rates and category definitions should be considered for these materials. Potential changes are as follows:

Septage: It should be noted that the tipping fees for septage have been increasing biennially and are scheduled to increase to \$90/tonne in 2025, which brings the tipping fees close to cost recovery. As required by the Ministry as part of the approval of the 2021 RRP, the RDCK plans to transition away from managing this material at landfills. Staff are currently in the consultation phase with stakeholders and municipalities and planning for alternate future management of septage.

Mixed waste: Plan mixed waste tipping fee increases such that the tipping fee revenue meets the cost of managing mixed waste in all sub-regions. The average cost to manage mixed waste across the sub-regions is \$193/tonne and the tipping fees could be raised to this amount to cover costs and encourage diversion.

Wood: Wood is accepted at a lower tipping fee to incentivize diversion, but the majority is not diverted from landfill. Wood is currently chipped, with some being mixed with septage and used as landfill cover, and the remainder being stockpiled at sites across the RDCK with no foreseeable end use. Beneficial uses of wood waste, such as in compost or biochar, are prevented by allowing painted and other wood types that may be considered contamination by some end users. The current Bylaw distinguishes between Clean Wood and Wood Waste in the definitions; however these materials currently have the same tipping fee and management practices. Clean wood is wood without paint or glues that can be beneficially reused. Waste wood includes laminate, painted wood and other wood materials such as furniture. These 'dirty' wood-based materials should be charged the mixed waste tipping fee and landfilled directly, thus saving on storage and chipping costs. Increasing the tipping fee for clean wood to approximately 75% that of mixed waste would aid in recovering the costs to manage the material while still incentivizing diversion.

Yard and Garden: Yard and garden waste is costly to manage and approximately one third appears to be accepted during bi-annual free collection events. Due to the low tipping fee and free events, the management of yard and garden waste is substantially paid for through taxation. Tipping fee increases or elimination of the free events would increase the tipping fee cost recovery for managing this material, reducing tax subsidization. Although it is likely that less yard and garden waste would be received if the free events did not take place, managing yard and garden waste costs more than the posted tipping fee and therefore managing the material for free increases costs further. Alternatively, as the free yard and garden events are well-utilized and there is a benefit in fire prevention, a user pay system may not be the most suitable option for this material.

The cost in lost revenue from providing the free yard and garden events for the Central sub-region is approximately \$22,000 per year, equivalent to approximately 1% of the annual tipping fee revenue received, \$30,000 per year in the East sub-region and \$5,000 in the West sub-region. The cost in lost revenue for the RDCK as a whole as a result of the bi-annual free yard waste events is approximately \$57,000 per year.

Soil: The current tipping fee for soil is \$21.75 for uncontaminated soil and \$48.50 for waste soil

- **Waste soil:** There are few alternatives for disposing of waste soil and therefore the tipping fee for waste soil should match either CDR or at minimum, mixed waste. The landfill environmental containment infrastructure is necessary to manage the potential impacts from contaminated soil similar to CDR or mixed waste, and the full cost of designing, constructing, operating and closing the facility should be recovered.
- **Uncontaminated soil:** Uncontaminated soil is needed for landfilling but not in the quantity received from 2020-2022. Landfilling large quantities of uncontaminated soil consumes airspace and reduces landfill life. As regulations regarding the relocation of uncontaminated soil have increased, there are few options for uncontaminated soil disposal and a low tipping fee is not necessary to incentivize uncontaminated soil disposal at the landfills. The tipping fee for uncontaminated soil could be increased to 75% of the mixed waste rate and it is likely that the Creston and Ootischenia landfill sites would continue to receive sufficient uncontaminated soil for operations. If additional uncontaminated soil was needed for operations, a lower rate could be provided to larger projects, who could also be required to provide equipment to stockpile the soil on site, thus lowering the management cost for the RDCK.

The following recommendations are made for the lower throughput materials (less than 3% of the waste stream):

Organics: The cost of managing organics is currently much higher than the tipping fee revenue. This is partially due to low tonnages as a result of being in the early stages of program implementation. It is anticipated that the cost to manage organics will decrease as tonnage increases; however not likely to the point of cost recovery based on current tipping fees. The RDCK would like to use taxation to subsidize tipping fees for this material to incentivize diversion of food waste. However, a tipping fee increase is not recommended at this stage of the program. Tipping fees could be reviewed two to three years after program implementation once the program is established and tonnage inputs are normalized, to bring the tipping fee revenue closer to the cost to manage.

Rubble: A significant quantity of rubble is not received across the region, with the exception of the East sub-region. Historically, tipping fees for rubble was lower as the material was stockpiled and used on site for beneficial reuse. Currently, rubble is collected and disposed of as mixed waste (i.e. landfilled) and therefore the separate category for rubble could be eliminated or combined with CDR (to account for the additional challenges associated with landfilling larger materials), or categorized as mixed waste.

If rubble was included in the CDR category at current tipping fee rates, the RDCK as a whole could increase tipping fee revenue by approximately \$109,000 per year. If rubble was included in the mixed waste category at current tipping fee rates, the region could increase tipping fee revenue by approximately \$59,000 per year.

Including rubble in the CDR category at current tipping fee rates would allow the East sub-region to increase their tipping fee revenue by approximately \$54,000 per year, the Central sub-region by approximately \$13,000 and the West sub-region by approximately \$42,000. If rubble was included in the mixed waste category at current tipping fee rates, East sub-region to increase their tipping fee revenue by approximately \$31,000 per year, the Central sub-region by approximately \$6,500 and the West sub-region by approximately \$22,000.

Tipping Fee Revenue Allocation: Currently tipping fee revenue remains in the sub-region that collects the fee as they are governed under different bylaws and have separate budgets in the RDCK's Financial Plan. Many operations in the West and Central sub-region systems are integrated as they share landfill and compost facilities, but the cost recovery through tipping fees is significantly different between the two sub-regions. An example includes how tipping fees from commercial waste stay in the West sub-region even if the waste originates in the Central sub-region. This results in a per capita tax rate of \$22 in the West sub-region vs. \$96 per capita in the Central sub-region. The aggregating of costs and revenues across the sub-regions into one RDCK cost to manage the solid waste system would result in a more equitable and efficient system for all residents. Tipping fee increases and other recommended cost saving actions could be implemented to increase the overall tipping fee cost recovery and lower the average per capita tax rate for all.

3.3 Pro-Forma Annual Budget

Using cost allocations produced by the Model, a pro-forma annual budget was developed and presented in Table 3.7 below.

Table 3.7 Pro-Forma Annual Budget

Cost Category	2023 System Costs (with average capital costs from 2024 - 2033)	Proportion of Total Budget (%)	Notes
Operations	\$5,798,000	58%	-
Recycling Depots and Transfer Station	\$3,262,500	32%	Variable – hours of operation and hauling efficiency (fuel and driver/tonne)
Landfill	\$1,470,600	15%	Variable – hours of operation and hauling efficiency (fuel and driver/tonne)
Hauling	\$818,900	8%	-
Compost	\$247,100	2%	Low as facility is not at full capacity
Capital Costs	\$2,831,800	28%	-
Past Capital Costs	\$536,400	5%	-
Future Capital Costs	\$2,295,000	23%	-
Future Legacy Landfill	\$664,000	7%	West, Central, East Legacy Landfill and Closure Works
Future Operating Landfill	\$967,800	10%	-
Future Transfer Station	\$1,034,200	10%	-
Future Compost	\$165,400	2%	-
Administration / Management	\$1,427,000	14%	-
Total	\$10,055,800	100%	-

Based on the 2020 to 2022 fiscal data input in the model, the RDCK Resource Recovery system had an average annual budget of \$10,055,800. The items with the highest potential to reduce costs are the recycling depot/transfer station operations at 32% of the total budget, and future capital costs at 23%

Tipping fee revenue from this timeframe covered approximately 53% of the annual budget, with the remaining 47% paid for through taxation, grants, and other forms of revenue such as Recycle BC and scrap metal incentives. As tipping fees have increased since this timeframe (by 10% in 2023 and a subsequent 10% in 2024), the current cost recovery is estimated to be up to 62% in 2024, with 38% recovered through taxes.

4. System Efficiency Study

A service level benchmarking assessment was conducted to identify the following:

- If the RDCK is over or underserved internally, comparing the three sub-regions, as well as externally (compared to other similar regional districts).
- Potential opportunities to recognize financial and administrative efficiencies.
- Limitations on realizing or implementing efficiencies.

4.1 Service Level Benchmarking Assessment

4.1.1 Research and Data Collection

A jurisdictional scan was completed to identify BC regional districts with similar characteristics and demographics to the RDCK for use in the benchmarking assessment. The jurisdictional scan was conducted as per the following steps:

1. **Selection Criteria:** The following criteria were chosen to identify regional districts comparable to the RDCK: population, land area (km²), and population density (capita per km²).
2. **Long-List Development:** All regional districts in BC were included in the long-list and further researched to determine the population, area (km²), and population density (population/km²).
3. **Long-List Evaluation and Short-List Development:** The 27 regional districts in the long-list were compared against the selection criteria values for the RDCK. A short list of seven regional districts was developed based on similarity to the RDCK:
 - Cariboo Regional District (CRD)
 - Columbia Shuswap Regional District (CSRD)
 - Regional District of East Kootenay (RDEK)
 - Regional District of Fraser Fort George (RDFFG)
 - Regional District of Kootenay Boundary (RDKB)
 - Regional District of Okanagan-Similkameen (RDOS)
 - Thompson Nicola Regional District (TNRD)

GHD provided the RDCK with a long list of potential criteria for benchmarking service levels. Based on discussions between GHD and RDCK Staff, criteria for the service level benchmarking assessment were narrowed down to the following:

- Types of materials accepted at each facility,
- Proportion of population residing in urban (municipality) and rural (electoral area) areas (%),
- Proportion of population with curbside collection or self-haul as reported by the regional district or member municipalities (%),
- Number of facilities (total and by facility type, i.e. landfill, recycling depot, transfer station),
- Facility density (per km² and per 10,000 residents), facility hours of operation (total and per 10,000 residents),
- Number of administrative sub-regions,
- Number of core and satellite recycling depots System costs per tonne waste generated and per capita (where available).

The above information, where available, was gathered and tabulated for each sub-region within the RDCK, for the RDCK as a whole, and for each of the short-listed regional districts as summarized in the next section.

4.1.2 Benchmarking

The service level criteria were evaluated for the RDCK, each of its sub-regions, and each of the seven short-listed regional districts. Upon beginning the data collection and compilation, the following changes were made to the above criteria based on data availability, complexity, and suitability:

1. **Facility type:** Standardization of facility type was a challenge due to significant variation in the operations of facilities across the regional districts (e.g. regional vs. RBC recycling depots, engineered vs. non-engineered landfills, transfer stations with recycling depots, standalone transfer stations or recycling depots, etc). Upon discussion between RDCK and GHD, it was decided that facilities would instead be categorized by estimated service population. However, since geographic waste sheds around each of the

161 facilities in the assessment are not defined, and data on populations for these waste sheds is not available, it was difficult to estimate service populations. It was subsequently decided to categorize facility type based on whether they were attended or unattended, as described in Table 4.1 below.

- Types of material accepted at each facility: Table 2.3 in this report documents materials accepted at the various sites across the RDCK. However, based on the large number of different materials handled, the high number of facilities included in the assessment (161), and the high frequency in which the types of materials accepted change, this criterion was not included in the benchmarking.

Table 4.1 Facility Type Classifications

Facility Type	General Characteristics
Unattended	<ul style="list-style-type: none"> Typically, small transfer stations and/or regional-run recycling stations that only accept limited materials. Unstaffed sites cannot collect recyclable materials under contract with Recycle BC⁵. Service small populations (up to 2000, but majority service populations under 500). Accessible 24 hours, seven days a week. Unable to collect tipping fees. Costs associated with maintenance, repair, and clean up tend to be high due to higher risk of contamination, illegal dumping, vandalism and other health and safety hazards.
Attended	<ul style="list-style-type: none"> Facility type varies from small transfer stations and/or standalone recycling depots all the way to full-service landfills with transfer stations and recycling depots on-site. Service level and associated staffing costs vary significantly but tend to increase with size of facility/population served. More materials accepted than at unattended sites.

Table 4.2 below outlines population and geography benchmarking, comparing each region’s population, area, population density, proportion of population in urban and rural settings, proportion of residents with access to curbside collection versus self-haul, and the number of administrative sub-regions. Table 4.3 benchmarks the sub-regions by facility and by operating hours.

A detailed summary of all waste facilities within each regional district showing the facility name, facility type, size classification (estimated population served), and number of hours of operation per week in summer (where available) is provided in Appendix A.

⁵ RecycleBC Collectors Qualifications Standards require that an RBC recycling depot must be staffed when open to residents and securely fenced and locked when closed to residents (<https://recyclebc.ca/wp-content/uploads/2023/01/2023-Recycle-BC-Collector-Qualification-Standards.pdf>)

Table 4.2 Regional Characteristic Benchmarking

Regional District	Population (2021)	Area (km ²)	Population Density (per km ²)	Urban Capita (%)	Rural Capita (%)	Curbside Collection (MSW & Recycling)	Self-haul	Administrative Sub-Regions
Regional District of Central Kootenay	62,509	23,150	2.83	48%	52%	44%	56%	3
West Sub-Region	23,895	9,969	2.40	46%	54%	43%	57%	1
Central Sub-Region	24,420	8,830	2.77	54%	46%	55%	45%	1
East Sub-Region	14,194	4,351	3.26	39%	61%	33%	67%	1
Cariboo Regional District	62,931	80,373	0.78	40%	60%	45%	55%	1
Columbia Shuswap Regional District	57,021	28,885	1.97	60%	40%	60%	40%	1
Regional District of East Kootenay	65,896	27,514	2.39	73%	27%	59%	41%	3
Regional District of Fraser Fort George	96,979	50,580	1.92	84%	16%	79%	21%	1
Regional District of Kootenay Boundary	33,152	8,080	4.10	67%	33%	54%	46%	1
Regional District of Okanagan-Similkameen	90,178	10,406	8.67	75%	25%	100%	0%	1
Thompson Nicola Regional District	143,680	44,347	3.24	88%	12%	70%	30%	1
Thompson Nicola Regional District (without Kamloops)	45,778	44,049	1.04	63%	37%	5%	95%	1

Table 4.3 Facility and Operating Hours Benchmarking

Regional District	Facility Analysis						Operating Hours Analysis			
	Total Number of Facilities ¹	Attended Facilities	Unattended Facilities	Facility Density (per 10,000km ²)	Rank	Facility Density (per 10,000 residents)	Rank	Total Attended Facility Operating Hours per week	Attended Facility Operating Hours per 10,000 residents	Rank
RDCK	24	24	0	10.4	2	3.8	2	519	83	2
RDCK (West Only)	9	9	0	9.0	-	3.8	-	182	76	-
RDCK (Central Only)	9	9	0	10.2	-	3.7	-	227	93	-
RDCK (East Only)	6	6	0	13.8	-	4.2	-	110	77	-
Cariboo Regional District	30	13	17	3.7	8	4.8	1	677	107	1*
Columbia Shuswap Regional District	19	19	0	6.6	4	3.3	4	353	62	4
Regional District of East Kootenay	23	8	15	8.4	3	3.5	3	63	10	7*
Regional District of Fraser Fort George	21	17	4	4.2	7	2.2	6	647	67	3*
Regional District of Kootenay Boundary	10	6	4	12.4	1	3.0	5	186	56	6*
Regional District of Okanagan-Similkameen	5	4	1	4.8	6	0.6	8	134	15	8*
Thompson Nicola Regional District	29	29	0	6.5	5	2.0	7	845	59	5
Average	20	15	5	7.1		2.9		428	57	

¹ Public solid waste facilities include transfer stations, core or satellite recycling depots, and eco-depots (some facilities may provide more than one of these services)

*This regional district also has unattended facilities. Hours for unattended facilities were not included in this analysis.

Benchmarking Between Regional Districts (External)

The regional characteristic benchmarking highlights which regional districts are most similar in operation to the RDCK. Overall, the RDEK is the most comparable to the RDCK, having similar regional district population, area, population density, and number of administrative sub-regions. The RDEK has a greater urban population of 73% compared to the RDCK's 48% and as such, has a higher proportion of residents with curbside collection services. The CRD is most similar to the RDCK in terms of overall population and proportion of rural to urban residents, with over 50% percent of residents residing in a rural setting. The CRD and RDCK both have 44-45% of the population receiving curbside collection of garbage and recycling, and 55-56% required to self-haul these materials.

The facility benchmarking indicates that the RDCK operates higher than the average number of facilities operated by the regional districts in the study (24 compared to the average of 20). When the total number of facilities in each regional district is normalized by its area and population (facility density per 10,000 km² and per 10,000 residents), the RDCK ranks second and was above average in both categories.

The hours of operation benchmarking indicates that the RDCK's total operating hours at attended facilities (all RDCK facilities) is above the average number of total operating hours and when normalized by population, ranks second amongst the regional districts in the assessment. It should be noted that the analysis did not include operating hours for unattended facilities (24 hours, seven days a week) as these were not considered comparable in level of service to attended facilities. These observations indicate that the RDCK provides a high level of service, both in terms of facility locations and operation hours, compared to similar regional districts.

Benchmarking Between Sub-Regions (Internal)

The facility benchmarking in Table 4.3 indicates that the density of facilities based on population and area in all three of the RDCK's sub-regions is higher than the average for the regional districts in the assessment, with the East sub-region being the highest served in both metrics. The operating hours per 10,000 residents in all three sub-regions is higher than the average from the benchmarking group and second only to the CRD. The Central sub-region is the highest at 93-hours per 10,000 residents which is significantly higher than the average of 57-hours per 10,000 residents. The West and East sub-regions have similar hours of operation of 76 to 77-hours per 10,000 residents.

To highlight individual facilities where the RDCK may be under or over-operating internally, further benchmarking analysis was completed at the facility level. Table 4.4 ranks the value of the facilities within each sub-region based on the tonnage of waste (both garbage and recycling) received at these sites for each hour of operation.

Table 4.4 RDCK Facility Benchmarking

Facility	Type	No. Weekly Operating Hours in Summer (#)	Annual Tonnage Collected (2022)	Weight Collected per Hour of Operation (kg)	Rank
East Sub-Region					
Boswell Transfer Station	Transfer Station/Satellite Depot	8	119	286	3
Crawford Bay Transfer Station	Transfer Station/Core Depot	18	356	380	2
Creston Depot	Core Depot	40	397	191	4
Creston Landfill	Landfill/Satellite Depot	35	11,422	6,276	1
Yahk Transfer Station	Transfer Station/Satellite Depot	4	17	81	5
Riondel Recycling Depot	Satellite Depot	5	12	46	6
Central Sub-Region					
Balfour Transfer Station	Transfer Station/Core Depot	28	1,016	698	3
Kaslo Transfer Station	Transfer Station/Core Depot	18	395	422	4
Marblehead (Meadow Creek) Transfer Station	Transfer Station/Satellite Depot	8	111	266	5
Grohman Narrows (Nelson) Transfer Station	Transfer Station/Satellite Depot	54	10,684	3,805	1
Central (Salmo) Transfer Station	Transfer Station	12	1,488	2,384	2
Ymir Transfer Station	Transfer Station/Satellite Depot	6	74*	237	6
Salmo Recycling Depot	Core Depot	24	86	69	8
Nelson - Lakeside	Core Depot	54	544	194	7
Kokanee Park Marina Satellite Depot	Satellite Depot	23	47	40	9
West Sub-Region					
Burton Transfer Station	Transfer Station/Satellite Depot	4	52	249	5
Crescent Valley Recycling Depot	Core Depot	35	141	78	7
Edgewood Transfer Station	Transfer Station/Core Depot	8	71	170	6
Nakusp Landfill	Landfill/Core Depot	21	2,237	2,048	2
Ootischenia (Castlegar) Landfill	Landfill/Core Depot	54	21,599	7,692	1
Rosebery Transfer Station	Transfer Station	12	160	256	4
Slocan Transfer Station	Transfer Station/Core Depot	18	800	855	3
Winlaw Recycling Depot	Satellite Depot	12	14	22	9
New Denver Recycling Depot	Core Depot	18	72	77	8

* Annual waste tonnage data from Ymir is from October 2023 to October 2024 as 2022 tonnage data was not available.

As expected, the landfills receive the highest weight of waste per hour of operation, while the standalone recycling depots receive the lowest. One exception to this is Grohman Narrows Transfer Station, which receives more waste than the Nakusp Landfill. There were three facilities that received less than 50 kg of waste per hour of operation: Riondel Recycling Depot, Kokanee Park Marina Recycling Depot, and Winlaw Recycling Depot. These three facilities represent potential opportunities to reduce costs as each is in close proximity to other RDCK recycling facilities. Riondel Recycling Depot is approximately 13 km from the Crawford Bay Transfer Station and Core Recycling Depot. Kokanee Park Marina Recycling Depot is approximately 11 km from the Balfour Transfer Station and Core Recycling Depot and approximately 28 km from the Grohman Transfer Station and Core Recycling Depot. The Winlaw Recycling Depot is approximately 19 km from the Slocan Transfer Station and Core Recycling Depot. Even at low weekly hours

of operation, the costs of maintaining and operating these three facilities is over \$100,000 per year which is significant considering that only 73 tonnes of materials were collected from these three facilities in 2022.

The Salmo Recycling Depot, Crescent Valley Recycling Depot, New Denver Recycling Depot, and Yahk Recycling and Transfer Station accept between 50 and 100 kg per hours of operation. The Yahk facility is also open only four hours per week and there are no nearby RDCK facilities. The Salmo, Crescent Valley and New Denver facilities hours of operation could be reduced to less than 12 hours or less per week to bring the level of service more in line with other RDCK facilities.

Core and Satellite Recycling Depot Benchmarking

A Core Depot is a recycling facility in which Recycle BC funds all post collection costs including hauling, processing and marketing of the recyclables. A Satellite Depot is a facility in which a regional district funds the costs associated with hauling materials to the next Core Depot or another consolidation point before Recycle BC collection. Typically, a Satellite Depot accepts fewer materials than a Core Depot due to transportation costs and space restrictions. As per Recycle BC Statement of Work requirements, depots where materials collected will be processed under Recycle BC cannot be unattended and must be securely fenced and/or locked when closed to customers⁶. Recycle BC uses a service standard based on distance and minimum population to identify the number of Core Depots Recycle BC will fund in each regional district. Regional districts may choose to operate satellite depots at their own discretion. The RDCK supplements their 12 Core Depots with 10 Satellite Depots to maximize recycling accessibility to their rural residents.

Regional Recycle BC depot information was gathered for the regional districts within the scan from Recycle BC's 2023 Annual Report⁷, which lists all Recycle BC Core Depots. Table 4.5 summarizes the number and proportion of types of recycling depots in the regional districts that were part of this assessment, as well as for the RDCK's three sub-regions.

Table 4.5 Core and Satellite Depot Benchmarking

Regional District	Total Recycle BC Depots	Core Depots ⁸ (#)	Satellite Depots (#)	Core Depots (%)	Satellite Depots (%)
Regional District of Central Kootenay	22	12	10	55%	45%
West Sub-Region	8	6	2	75%	25%
Central Sub-Region	8	4	4	50%	50%
East Sub-Region	6	2	4	33%	67%
Cariboo Regional District	16	15	1	94%	6%
Columbia Shuswap Regional District	18	17	1	94%	6%
Regional District of East Kootenay	7	7	0	100%	0%
Regional District of Fraser Fort George	3	2	0 ⁹	100%	0%
Regional District of Kootenay Boundary	6	6	0	100%	0%
Regional District of Okanagan-Similkameen	9	9	0	100%	0%

⁶ <https://recyclebc.ca/wp-content/uploads/2020/11/Recycle-BC-Depot-SOW-SAMPLE-2023.08.01.pdf>

⁷ Accessed online from https://recyclebc.ca/wp-content/uploads/2024/06/Recycle-BC_Annual-Report_2023_F.pdf

⁸ Accessed from https://recyclebc.ca/wp-content/uploads/2024/06/Recycle-BC_Annual-Report_2023_F.pdf. Some Core Depots listed may not be operated by the Regional District, but are included as they contribute to the regions recycling accessibility.

⁹ Number of future satellite depots are currently in the process of being determined by RDIFFG

Regional District	Total Recycle BC Depots	Core Depots ⁸ (#)	Satellite Depots (#)	Core Depots (%)	Satellite Depots (%)
Thompson Nicola Regional District	27	14	13	52%	48%

The RDCK operates a high number of Satellite Depots compared to other regional districts. Apart from the TNRD, all other jurisdictions in the scan do not supplement their Core Depots with formal Satellite Depots. Some, such as the RDEK, operate regionally run recycling programs at their own expense to supplement the Recycle BC program in place. Satellite depots can also be informal and not reported publicly. For example, many First Nation communities in the CRD, RDEK and TNRD collect recycling curbside in mobile eco-depots (cube vans) which operate as satellite depots by consolidating recycling at regional district facilities.

The RDCK and TNRD are similar in that during the transition from a regional district run recycling system to a Recycle BC funded system not all of the historical locations met the service standard to become Core Recycle BC funded Depots. Both regional districts are choosing to continue providing a higher level of service than the service standard that Recycle BC uses. The RDCK could reduce three satellite depots and continue providing a high level of access and service.

Further analysis was completed to evaluate the distribution of Core Depots across regional districts. The number of Core Depots in each regional district was normalized by the number of residents who rely on these depots for recycling services (i.e. those who do not have access to curbside recycling programs), and by the total area of the regional district. Table 4.6 outlines the results of this analysis.

Table 4.6 Core Depot Distribution Analysis

Regional District	Population (2021)	Area (km ²)	Core Depot Analysis						
			Population w/o curbside recycling (%)	Population w/o curbside recycling (2021)	Core Depots (#)	# Core Depots per 10,000 residents ¹	RANK	# Core Depots per 10,000km ²	RANK
RDCK	62,509	23,150	55%	34,380	12	3.5	5	5.2	4
RDCK (West Only)	23,895	9,969	57%	13,620	6	4.4	-	6.0	-
RDCK (Central Only)	24,420	8,830	45%	10,989	4	3.6	-	4.5	-
RDCK (East Only)	14,194	4,351	67%	9,510	2	2.1	-	4.6	-
Cariboo Regional District	62,931	80,373	55%	34,612	15	4.3	4	1.9	7
Columbia Shuswap Regional District	57,021	28,885	40%	22,808	17	7.5	2	5.9	3
Regional District of East Kootenay	65,896	27,514	41%	27,017	7	2.6	7	2.5	6
Regional District of Fraser Fort George	96,979	50,580	21%	20,366	2	1.0	8	0.4	8
Regional District of Kootenay Boundary	33,152	8,080	34%	11,272	6	5.3	3	7.4	2
Regional District of Okanagan-Similkameen	90,178	10,406	0%	0	9	-	1 ²	8.6	1
Thompson Nicola Regional District	143,680	44,347	30%	43,104	14	3.2	6	3.2	5
Average	61,350	26,953	40%	20,698	9	3.8		4.6	

¹ Residents without access to curbside recycling programs.

² RDOS is ranked first as they have nine core depots while 100% of their residents have access to curbside recycling services.

Increased access to curbside recycling programs results in lower hours of operations needed for Core Depots; however Core Depots are still required to receive materials that are not collected in curbside programs (e.g. glass, flexible plastics, foams).

Several regional districts with higher proportions of populations with curbside collection services still have a high concentration of Core Depots. The highest-ranking regional district (RDOS) had the lowest number of residents without curbside collection and one of the lowest total land areas. The RDCK ranks in the middle for both metrics. It has slightly below the average number of Core Depots per 10,000 residents without access to curbside service, and slightly more than average for Core Depots by total area. This data may be skewed based on the fact that the dataset only includes eight regional districts and not the entire Recycle BC service area but this dataset indicates that areas without curbside collection programs (i.e. rural areas) may be underserved by Recycle BC.

Total System Costs

Total system costs were identified for each benchmarked regional district, reported in public financial planning and solid waste related documents as annual waste management expenditures. The total system costs were calculated on a per capita basis and are shown in Table 4.7 below.

Total system costs per capita are estimates have the following limitations:

- Annual capital costs are not distributed evenly. The RDCK, RDKB, RDOS, and TNRD have varying degrees of capital investment costs reported, creating variability among the Regional Districts, and potentially skewing the results.
- Not all expenditures were available as historical actuals, therefore, in some cases budgets have been reported as total system cost.
- The make up of reported waste tonnage from regional jurisdictions is unclear, and either under-represents or over-represents the total tonnage used in the analysis.

Overall, the RDCK's total system cost per capita is slightly higher than the regional district average of \$168 per capita. The RDCK ranks as the third highest total system cost per capita among the regional districts in the scan, after the TNRD with the City of Kamloops excluded, and the RDKB. Considering the data limitations as described above, generally, the analysis indicates that the RDCK's cost per capita is aligned with the regional districts included in the scan, at \$10 per capita higher than the average, potentially supporting that the RDCK is providing a high level of service.

The total system costs for each regional district were compared to a simplified estimate of tipping fee revenue using tonnes landfilled multiplied by the mixed waste tipping fee. The total system costs and tipping fee revenue are estimates for comparison purposes, considering the limitations to the total system costs as described above. In addition, the corresponding year for data used in the annual mixed waste tonnage and tipping fee may not align, as tipping fees current as of 2024 were used in the estimates.

Overall, the RDCK has the highest tipping fees of all regional districts in the scan. With the RDEK removed, as they do not charge tipping fees for residential mixed waste, the average for mixed waste tipping fees is \$97/tonne as compared to the \$151/tonne in the RDCK.

On average, an estimated 40% the regional districts total system costs are funded by tipping fees (excluding the RDEK), compared to 45% by the RDCK. Based on the cost model and current tipping fee analysis, the RDCK is currently recovering up to 62% of cost through tipping fees. Both 45% and 62% cost recovery through tipping fees rank the RDCK higher than most regional districts in the scan on cost recovery through tipping fees. This potentially indicates that solid waste systems are increasingly being funded through taxation and less by tipping fees. This trend is consistent with regional districts over the last 15-years, as more materials are diverted from high tipping fee waste categories such as mixed waste, to lower tipping fee categories such as organics or recycling to incentive diversion. The overall cost of solid waste systems are increasing while the tonnage assigned a tipping fee decreases. To fund solid waste systems which are incentivising diversion, a model funded more through taxation than tipping fees becomes necessary.

Table 4.7 Total System Cost Comparison with Simplified Tipping Fee Revenue

Regional District	Estimated Tonnage Landfilled (2021) ¹	Mixed Waste Tipping Fee/Tonne ⁶	Simplified Tipping Fee Estimate for Comparison Purposes (2021 Tonnage X Mixed Waste Tipping Fee)	Total System Cost (Expenditures) (2022)	Estimated Total System Cost per Capita	% of Total System Costs Funded by Simplified Tipping Fee Estimate
Regional District of Central Kootenay	29,920	\$151	\$4,525,400	\$ 10,488,840 ⁴	\$178	45%
Cariboo Regional District	42,737	\$80	\$3,418,960	\$ 8,035,775 ²	\$128	43%
Columbia Shuswap Regional District	36,900	\$90	\$3,321,000	\$ 7,588,255	\$133	44%
Regional District of East Kootenay	48,648	\$0	\$0	\$ 9,164,169 ³	\$139	0%
Regional District of Fraser Fort George	82,740	\$98	\$8,108,520	\$12,164,001	\$125	67%
Regional District of Kootenay Boundary	21,772	\$120	\$2,612,640	\$ 7,617,530 ⁴	\$230	34%
Regional District of Okanagan-Similkameen	51,808	\$110	\$5,698,880	\$15,735,840 ⁴	\$174	36%
Thompson Nicola Regional District (City of Kamloops + TRND Systems)	94,757	\$90	\$8,528,130	\$23,015,298 ⁵	\$160	37%
Thompson Nicola Regional District Only System (excluding City of Kamloops Facilities)	24,308	\$90	\$2,187,720	\$11,534,492 ^{3,4}	\$252	19%

- 2021 tonnage calculated based on the disposal rate reported on the BC Sustainability Website – Municipal Solid Waste Disposal in B.C from <https://www.env.gov.bc.ca/soe/indicators/sustainability/municipal-solid-waste.html>. This includes waste from the residential and ICI sector, light industrial sources and CDR materials.
- Total system cost budgeted for year 2024.
- Total system cost for reported year of 2021.
- Includes one-time capital investment cost (cost varies per regional district).
- Based on TNRD SWMP Forecasts: A.-TNRD-Regional-Solid-Waste-Management-Plan-Final-draft-No-Appendices-reduced-size.pdf
- Tipping fees are current as of 2024.

4.1.3 Summary of Benchmarking Assessment Findings

Overall, the RDCK is providing a high level of service compared to other regional districts based on the hours of operation and the number of facilities per capita. To maximize system efficiency, the RDCK should consider closing facilities which collect less than 50 kg of recycling per hour of operation and are located less than a 20-minute drive from other RDCK facilities as residents are already using the neighbouring facilities for disposal of waste and core recyclable materials. There are other facilities that collect less than 100 kg of recycling per hour which are not near

other RDCK facilities where the hours of operation could be reduced while access is maintained. The recommendations by sub-region are as follows:

- East sub-region
 - Close Riondel Satellite Depot
- Central sub-region
 - Close Kokanee Park Marina Satellite Depot
 - Reduce the hours of operation at the Salmo Recycling Depot
- West sub-region
 - Close the Winlaw Satellite Depot
 - Reduce the hours of operation at the Crescent Valley and New Denver Recycling Depots

4.2 Current System Assessment

A current system assessment has been completed identifying current strengths, challenges and barriers, using the background review data and the service level benchmarking assessment.

4.2.1 Strengths

Organics Infrastructure: Recent organics infrastructure and organics initiatives are in place to divert residential and commercial organics from landfill. This includes the construction of two compost facilities (Creston and Central), which accept organics from residential, agricultural, and ICI sectors in the Region. In addition, public collection points have been set up at four waste facilities. The organics diversion initiatives should increase accessibility to programs and divert a portion of the 27% of the waste stream made up of compostable materials currently going to landfill.

Service Levels: The RDCK provides a consistent level of service throughout the region, with each category (type/size) of facility accepting similar materials regardless of location. On an hour of operation basis, the RDCK provides a high level of service compared to the other regional districts in the scan and could consider reducing hours of operation at Core Depots and closing some Satellite Depots. Based on the benchmarking, the number of Core Depots per capita is similar to other regional districts.

4.2.2 Challenges

Administrative Model: The RDCK operates under three administrative sub-regions that function similar to three separate regional jurisdictions. The administrative model creates challenges regarding the implementation of cohesive programming, funding mechanisms, and system efficiency. Of the short-listed regional districts, only the RDEK also operates under sub-region type of administrative model. Other jurisdictions have identified separate waste shed areas but still operate under one administration. The resource recovery system is reliant on each sub-region working cohesively as material consolidation and waste disposal require transferring across sub-regions.

Waste management infrastructure and operations in the RDCK has become more integrated, especially in the West and Central sub-regions, as the facilities have evolved and yet administrative and financially the sub-regions operate separately. Recycle BC will not provide funding to sub-regions but provides funding to the RDCK overall. Therefore, the operations are becoming more regional and integrated, but staff must spend time disintegrating operations and allocating costs to allow each sub-region to report separately.

Geography: The RDCK has a high population of residents living in rural areas (52%). The main population centres of Castlegar and Nelson are separated from Creston by the Kootenay Pass which at 1,774 m is the highest elevation highway pass in BC making regional consolidation of waste and recycling challenging.

Number of Facilities: The RDCK ranks as one of the highest in facilities per operating area compared to the benchmarked regional districts. The RDCK currently requires a high number of facilities to provide residents throughout urban, rural and remote areas with relatively equitable access to waste disposal and diversion programs. The operation of more facilities leads to higher operational costs.

Staffing Requirements: All RDCK facilities are staffed, which increases facility costs. Recycling facilities cannot be unattended as per Recycle BC contract requirements. In addition, staffing solid waste facilities is best practice as unattended sites often have issues with contamination, theft and vandalism, resulting in higher costs. The RDCK's facility operating hours are above average in all service population categories compared to the jurisdictions in the benchmarking exercise.

5. System Efficiency Recommendations

To increase system efficiency, the following recommendations are proposed:

1. The RDCK may consider implementing one tipping fee schedule across all sub-regions to simplify the operations and administration. The RDCK can consider the following changes to the tipping fees to increase cost recovery, noting that these would be some of the highest tipping fees in BC:
 - Asbestos, Biosolids, Bulky Waste, CRD, Land clearing, Noxious Weeds, Organic Waste, Scrap Metal, Tires – No change.
 - Mixed Waste – Increase to approximately \$193 per tonne to match the cost of management.
 - Rubble – Eliminate the rubble category and include in CDR at \$242/tonne.
 - Septage – Implement planned change to \$90/tonne.
 - Wood – Manage clean wood and waste wood as two different materials to reduce the amount of wood being stockpiled and processed and improve the potential for beneficial reuse (e.g. exclude painted wood, furniture, laminate, etc.). Increase the tipping fee for clean wood to 75% of the mixed waste fee, at approximately \$145/tonne. Wood waste should be charged the mixed waste tipping fee and landfilled.
 - Yard and Garden Waste – Consider the cost savings of discontinuation of the free yard and garden waste events vs. the popularity of the events and benefits to fire prevention. Increase the tipping fee to 75% of the mixed waste fee, at approximately \$145/tonne.
 - Soils – Increase the tipping fee for uncontaminated soils to 75% of the tipping fee for mixed waste (\$145/tonne) and increase the tipping fee for waste soils to the CDR tipping fee at \$242/tonne.
3. To save costs and still provide a level of service that is consistent with other regional districts, the RDCK could consider reducing hours of operation at some facilities that receive less than 100 kg per hour of recyclables. Table 4.4 in the benchmarking assessment was used to determine a list of potential facilities where it would be beneficial to re-evaluate the current hours of operation:
 - Salmo Recycling Depot
 - Crescent Valley Recycling Depot
 - New Denver Recycling Depot
4. To save costs and still provide a level of service that is consistent with other regional districts, the RDCK could consider closing three Satellite Depots that receive less than 50 kg per hour of recyclables and are within a 30-minute drive of other RDCK facilities. These include:
 - Riondel Recycling Depot
 - Kokanee Park Marina Recycling Depot
 - Winlaw Recycling Depot
5. The Grohman Transfer Station is one of two metal collection points that require metal to be moved off-site. As shown in the waste mapping figures in Appendix B, Grohman Transfer Station accepted approximately 25% of all scrap metal throughout the region and relocates this material to the Central (Salmo) Transfer Station. This additional material handling may account for the high operation costs at the Grohman. It is recommended that the RDCK review the site layout and operations to minimize double handling.

6. The RDCK has recently upgraded their scale software program. With a complex network of facilities, it is recommended that the scale software continue to be used to track the flow of materials to better understand tonnes collected and transferred at each facility. Accurate tonnages will allow the RDCK to evaluate the impacts of future program changes (reduced facility hours, organics diversion initiatives).
7. The hauling of waste is a significant cost to the RDCK but the costs of hauling waste with tipping fees are not tracked by material type (e.g. wood, mixed waste, etc.), and therefore allocating hauling costs by material is challenging. Tracking hauling trips and costs by material type would improve the ability for the RDCK to assess costs by material type and set tipping fees appropriately. Hauling of recyclables is tracked separately, however there is no tipping fee applied for this material.
8. New materials will be managed by EPR programs by 2026. These include electric vehicle (EV) batteries, mattresses, compressed canisters, and medical sharps. The RDCK already collects propane tanks at all facilities, but currently does not collect mattresses or EV batteries for diversion. Currently, mattresses are accepted at RDCK landfills for disposal. The RDCK should monitor the implementation of these programs and assess annually how the RDCK should participate in the programs. Mattresses and compressed gas cylinders are the best match with existing collection at landfills and larger transfer stations.
9. The three administrative sub-regions are unique to the RDCK, with only the RDEK operating with a similar system but the RDEK operates without tipping fees. There are benefits to a single centralized administrative system, such as more efficient decision-making processes, ability to apply a focused vision for the future state throughout the region, simplified organizational processes, and reduced administrative and managerial costs. The three sub-regional resource recovery service model can pose challenges in delivering efficient and effective waste management services. The Central and West facilities and operations are becoming more and more integrated increasing the complexity of cost allocation to sub-regions. The RDCK should consider undertaking the study highlighted in the RRP to assess the cost-benefit of regionalization versus the current sub-region model at minimum for the management of organics, recycling, and septage.

6. Closing

Overall, the RDCK Resource Recovery system is operated efficiently with equitable access to waste and recycling services across the sub-regions, and between rural and urban areas.

The benchmarking assessment indicated that the RDCK provides a slightly higher-than-average level of service and accessibility for waste and recycling services compared to similar regional districts. In addition, the RDCK has implemented robust organics management infrastructure, with the construction of two composting facilities, and four public collection points. The RDCK has made significant progress on organics diversion programs within the region and can expect to see increased organics diversion in the future as the program continues to be established and participation increases.

It is recognized that the RDCK achieves a reasonable value for service. At a high-level, this assessment is based on the tipping fee revenue generated as a percentage of the total cost of the system. The analysis of costs and revenue shows that up to 62% of the total system cost is recovered through tipping fees. Given the large geographic nature and requirements for the RDCK to maintain the system, the tax burden for services is reasonable and may be low compared with other regional districts.

The cost of the system per capita is similar to other regional districts, ranking third highest and \$10 per capita over the average, indicating that the RDCK is on the higher scale, but not unreasonable, comparatively. The RDCK's tipping fees for mixed waste ranks the highest within the scan, at \$54/tonne higher than the average. The RDCK's mixed waste tipping fees are on the high end of market rates.

The RDCK is currently recovering 62% of costs through tipping fees, and the remaining portion is recovered through taxes. This portion of cost recovery through tipping fees is higher than other regional districts, many of which are moving to a taxation model to recover 50-70% of system costs. Overall, the RDCK's cost recovery model is reasonable for the level of service provided. As diversion increases, the opportunities to increase tipping fees to

recover additional costs will be less (i.e. tipping fees can only go so high before waste departs the region) and the RDCK will have to transition to recovering over 50% of the system costs through taxation rather than tipping fees. Tipping fees can be increased in the short term, but the more successful the diversion programs, the more the need to recover costs through taxation, as waste will be shifting from categories with high tipping fees to categories with lower or no tipping fees.

This study identified a potential opportunity for increased efficiency and increased equitability by sharing costs and revenues between the sub-regions. The RDCK may consider undertaking a regionalization study to further determine the feasibility of this action. Incremental changes have been proposed including increased tipping fees for some materials to better recover the costs to manage those materials, the closure of three satellite recycling depots and reducing hours of operation at three core recycling depots.

The administrative sub-regions add a level of complexity to managing waste in the RDCK that reduces administrative efficiency. The tipping fee revenue collected in the West sub-region is much higher than in the Central sub-region indicating that the West sub-region is potentially subsidizing its programs with tipping fee revenues from materials such as commercial waste, soils, and septage from the Central sub-region as it hosts the primary landfill for these sub-regions. The waste systems between the West and Central are now highly integrated and allocation of costs is complicated and can lead to unequal taxation based on the taxation structure and interpreted cost allocations. The allocation of costs from shared services is time consuming, staff time could be better allocated to operating the system and executing the planned capital projects.

Appendices

Appendix A

Service Level Benchmarking - Detailed Facility Summary Table

Regional District	No.	Facility	Type	Hours of Operation (summer/hrs/week)
RDCK	East Sub Region			
	1	Boswell Transfer Station	Transfer Station/Satellite Depot	8
	2	Crawford Bay Transfer Station	Transfer Station/Core Depot	18
	3	Creston Depot	Core Depot	40
	4	Creston Landfill	Landfill/Satellite Depot	35
	5	Yahk Transfer Station	Transfer Station/Satellite Depot	4
	6	Riondel	Satellite Depot	5
	Central Sub Region			
	7	Balfour Transfer Station	Transfer Station/Core Depot	28
	8	Kaslo Transfer Station	Transfer Station/Core Depot	18
	9	Marblehead (Meadow Creek) Transfer Station	Transfer Station/Satellite Depot	8
	10	Grohman Narrows (Nelson) Transfer Station	Transfer Station/Satellite Depot	54
	11	Central (Salmo) Transfer Station	Transfer Station	12
	12	Ymir Transfer Station	Transfer Station/Satellite Depot	6
	13	Salmo	Core Depot	24
	14	Nelson - Lakeside	Core Depot	54
	15	Kokanee Park Marina Satellite Depot	Satellite Depot	22.5
	16	Nelson Leafs Recycling Centre	Eco-Depot	34
	Western Sub Region			
	16	Burton Transfer Station	Transfer Station/Satellite Depot	4
	17	Crescent Valley	Core Depot	35
	18	Edgewood Transfer Station	Transfer Station/Core Depot	8
	19	Nakusp Landfill	Landfill/Core Depot	21
	20	Ootischenia (Castlegar) Landfill	Landfill/Core Depot	54
21	Rosebery Transfer Station	Transfer Station	12	
22	Slocan Transfer Station	Transfer Station/Core Depot	18	
23	Winlaw	Satellite Depot	12	
24	New Denver	Core Depot	18	
CRD	North Cariboo			
	1	Baker Creek Transfer Station	Transfer Station	60
	2	Alexandria Transfer Station	Transfer Station	24/7
	3	Cottonwood Transfer Station	Transfer Station	24/7
	4	Titetown Transfer Station	Transfer Station	24/7
	5	Wells Transfer Station	Transfer Station	24/7
	Central Cariboo			
	6	150 Mile Transfer Station	Transfer Station	63
	7	Central Cariboo Transfer Station	Transfer Station/Recycling Depot	70
	8	Frost Creek Transfer Station	Transfer Station	60
	9	Horsefly Recycling Depot	Transfer Station/Recycling Depot	63
	10	McLeese Lake Transfer Station	Transfer Station/Recycling Depot	8
	11	Wildwood Transfer Station	Transfer Station/Recycling Depot	60
	12	Big Lake Landfill	Landfill	24/7
	13	Chimney/Felker Transfer Station	Transfer Station	24/7
	14	Likely Landfill	Landfill/Recycling Depot	24/7
	South Cariboo			
	15	Forest Grove Transfer Station	Transfer Station/Recycling Depot	57.5
	16	Interlake Landfill	Landfill/Recycling Depot	60
	17	Lac La Hache Transfer Station	Transfer Station/Recycling Depot	58
	18	Lone Butte Transfer Station	Transfer Station/Recycling Depot	60
	19	South Cariboo Landfill	Landfill/Recycling Depot	63
	20	Watch Lake Landfill	Landfill/Recycling Depot	54
	21	Eagle Creek Transfer Station	Transfer Station	24/7
	22	Mahood Lake Landfill	Landfill	24/7
	Chilcotin			
	23	Alexis Creek Transfer Station	Transfer Station	24/7
	24	Cochin Lake Landfill	Landfill	24/7
	25	Kleena Kleene Landfill	Landfill	24/7
	26	Nemaiah Valley Landfill	Landfill	24/7
27	Puntzi Lake Landfill	Landfill	24/7	
28	Riske Creek Transfer Station	Transfer Station	24/7	
29	Tatla Lake Landfill	Landfill	24/7	
30	West Chilcotin Landfill	Landfill	24/7	
	1	Golden Landfill	Landfill/Recycling Depot	36
	2	Revelstoke Landfill	Landfill/Recycling Depot	36
	3	Sicamous Landfill	Landfill/Recycling Depot	30
	4	Salmon Arm Landfill	Landfill/Recycling Depot	56
	5	Scotch Creek Transfer Station	Transfer Station/Recycling Depot	35
	6	Skimikin Transfer Station	Transfer Station/Recycling Depot	30

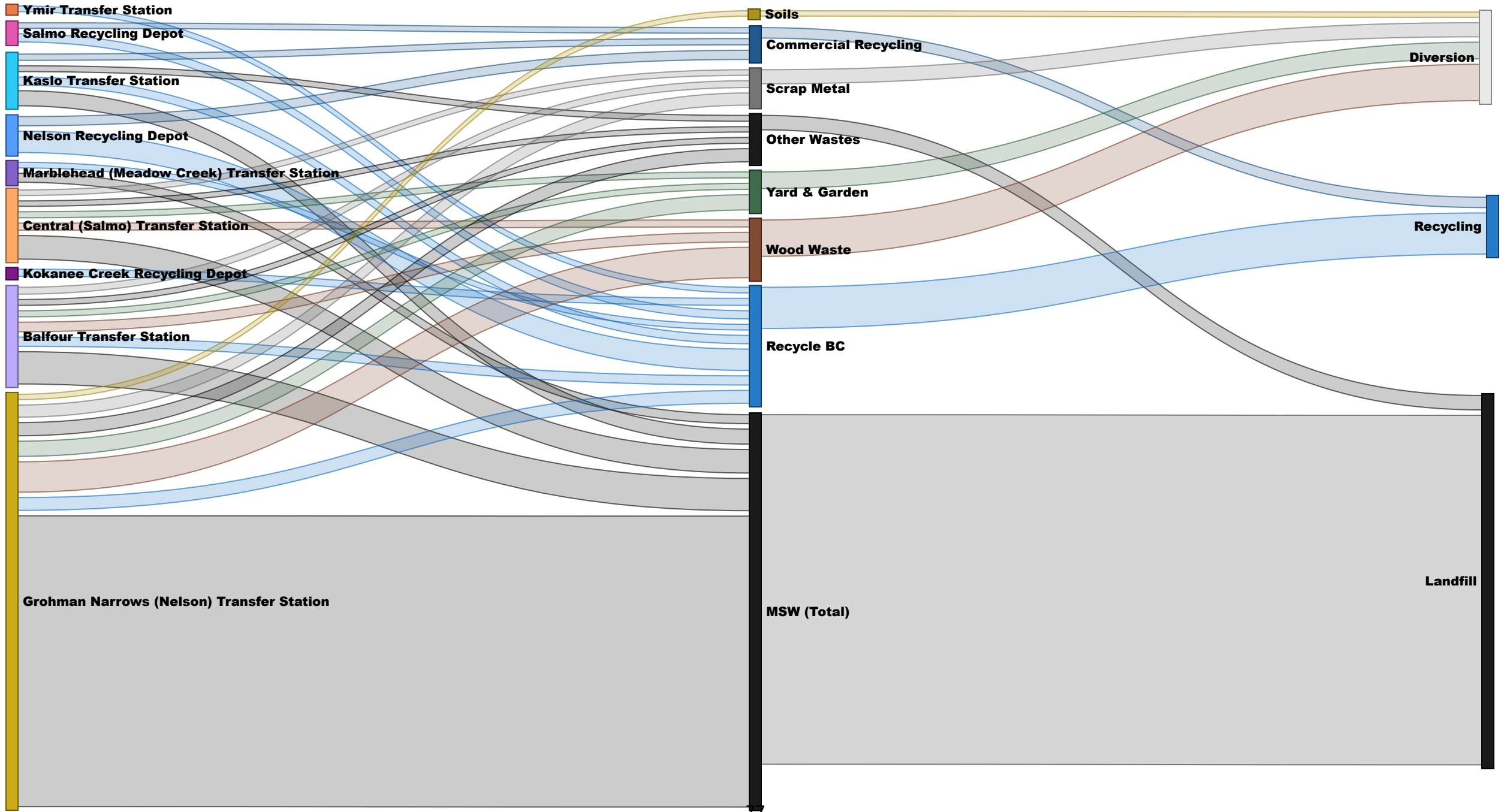
Regional District	No.	Facility	Type	Hours of Operation (summer/hrs/week)
CSRD	7	Falkland Transfer Station	Transfer Station/Recycling Depot	18
	8	Glenemma Transfer Station	Transfer Station/Recycling Depot	12
	9	Malakwa Transfer Station	Transfer Station/Recycling Depot	14
	10	Parson Transfer Station	Transfer Station/Recycling Depot	8
	11	Seymour Arm Transfer Station	Transfer Station/Recycling Depot	4
	12	Trout Lake Transfer Station	Transfer Station/Recycling Depot	4
	13	Kicking Horse Recycling Depot	Recycling Depot	24
	14	Sorrento Recycling Depot	Recycling Depot	24
	15	Malakwa Recycling Station	Recycling Depot	12
	16	Sicamous Return-It Depot	Recycling Depot	35
	17	Revelstoke Bottle Depot	Recycling Depot	37.5
18	Bills Bottle Depot	Recycling Depot	56	
19	Golden Bottle Depot	Recycling Depot	26	
RDEK	Columbia Valley Sub Region			
	1	Columbia Valley Landfill	Landfill/Recycling Depot	63
	2	Brisco Transfer Station	Transfer Station/Recycling Depot	24/7
	3	Canal Flats Transfer Station	Transfer Station/Recycling Depot	24/7
	4	Edgewater Transfer Station	Transfer Station/Recycling Depot	24/7
	5	Fairmont Transfer Station	Transfer Station/Recycling Depot	24/7
	6	Invermere Transfer Station	Transfer Station/Recycling Depot	63
	Central Subregion			
	7	Central Subregion Landfill	Landfill/Recycling Depot	54
	8	Cranbrook Transfer Station	Transfer Station/Recycling Depot	63
	9	Kimberly Transfer Station	Transfer Station/Recycling Depot	63
	10	Baynes Lake Transfer Station	Transfer Station/Recycling Depot	24/7
	11	Elko Transfer Station	Transfer Station/Recycling Depot	24/7
	12	Fort Steele Transfer Station	Transfer Station/Recycling Depot	24/7
	13	Grasmere Transfer Station	Transfer Station/Recycling Depot	24/7
	14	Green Bay/Monroe Lake Transfer Station	Transfer Station/Recycling Depot	24/7
	15	Moyie/Sunrise Transfer Station	Transfer Station/Recycling Depot	24/7
	16	Newgate Transfer Station	Transfer Station/Recycling Depot	24/7
	17	Sheep Creek Transfer Station	Transfer Station/Recycling Depot	24/7
	18	Tie Lake Transfer Station	Transfer Station/Recycling Depot	24/7
	19	Wardner Transfer Station	Transfer Station/Recycling Depot	24/7
	20	Wasa Transfer Station	Transfer Station/Recycling Depot	24/7
	Elk Valley Subregion			
21	Elkford Transfer Station	Transfer Station/Recycling Depot	48	
22	Sparwood Landfill	Landfill/Recycling Depot	48	
23	Fernie Transfer Station	Transfer Station/Recycling Depot	52	
RDFFG	1	Bear Lake Regional Transfer Station	Transfer Station	10
	2	Berman Lake Regional Transfer Station	Transfer Station/Recycling Depot	38
	3	Buckhorn Regional Transfer Station	Transfer Station/Recycling Depot	36
	4	Chief Lake Regional Transfer Station	Transfer Station/Recycling Depot	36
	5	Cummings Road Regional Transfer Station	Transfer Station/Recycling Depot	32
	6	Dunster Regional Transfer Station	Transfer Station/Recycling Depot	37
	7	Foothills Boulevard Regional Landfill	Landfill	66
	8	Hixon Regional Transfer Station	Transfer Station/Recycling Depot	22
	9	Legrand Demolition and Construction Waste Landfill	Landfill	24/7
	10	Mackenzie Regional Transfer Station	Transfer Station/Recycling Depot	40
	11	Mackenzie Select Waste Landfill (C&D)	Landfill	40
	12	McBride Regional Transfer Station	Transfer Station/Recycling Depot	46
	13	McLeod Lake Regional Transfer Station	Transfer Station	24/7
	14	Miworth Regional Transfer Station	Transfer Station	24/7
	15	Quinn Street Recycling Depot and Transfer Station	Transfer Station/Recycling Depot	40
	16	Shelley Regional Transfer Station	Transfer Station/Recycling Depot	36
	17	Summit Lake Regional Transfer Station	Transfer Station	24/7
	18	Valemount Regional Transfer Station	Transfer Station/Recycling Depot	46
	19	Vanway Recycling Depot and Transfer Station	Transfer Station/Recycling Depot	56
	20	West Lake Regional Transfer Station	Transfer Station/Recycling Depot	30
	21	Willow River Regional Transfer Station	Transfer Station/Recycling Depot	36
RDKB	Greater Trail Area			
	1	McKelvey Creek Landfill	Landfill/Recycling Depot	64
	Boundary Area			
	2	Grand Forks Landfill	Landfill/Recycling Depot	41.5
	3	Christina Lake Transfer Station	Transfer Station/Recycling Depot	25
West Boundary Area				
4	West Boundary (Greenwood) Landfill	Landfill/Recycling Depot	21	
5	Beaverdell Transfer Station	Transfer Station/Recycling Depot	8	

Regional District	No.	Facility	Type	Hours of Operation (summer/hrs/week)
	6	Rock Creek Transfer Station	Transfer Station/Recycling Depot	26
	7	Christian Valley Transfer Station	Transfer Station	24/7
	8	Idabel Lake Transfer Station	Transfer Station/Recycling Depot	24/7
	9	Mt. Baldy Transfer Station	Transfer Station/Recycling Depot	24/7
	10	Big White Transfer Station	Transfer Station/Recycling Depot	24/7
RDOS	1	Pentitcton (Campbell Mountain) Landfill	Landfill/Recycling Depot	56
	2	Oliver Landfill	Landfill/Recycling Depot	42
	3	Okanagan Falls Landfill	Landfill/Recycling Depot	24
	4	Keremeos Landfill	Landfill/Recycling Depot	12
	5	Apex Transfer Station	Transfer Station/Recycling Depot	24/7
TNRD	1	70 Mile Eco-Depot	Recycling Depot	35
	2	Agate Bay Transfer Station	Transfer Station/Recycling Depot	4
	3	Aspen Grove Transfer Station	Transfer Station/Recycling Depot	4
	4	Black Pines Transfer Station	Transfer Station/Recycling Depot	4
	5	Blue River Eco Depot	Recycling Depot	16
	6	Boston Flats Eco Depot	Recycling Depot	48
	7	Brookmere Transfer Station	Transfer Station/Recycling Depot	4
	8	Clearwater Eco Depot	Recycling Depot	48
	9	Clinton Eco Depot	Recycling Depot	32
	10	Eagan Lake Transfer Station	Transfer Station/Recycling Depot	4
	11	Heffley Creek Eco Depot	Recycling Depot	48
	12	Knutsford Transfer Station	Transfer Station/Recycling Depot	40
	13	Lac Le Jeune Transfer Station	Transfer Station/Recycling Depot	8
	14	Logan Lake Eco Depot	Recycling Depot	48
	15	Loon Lake Transfer Station	Transfer Station/Recycling Depot	24
	16	Louis Creek (Barriere) Eco-Depot	Recycling Depot	48
	17	Lower Nicola (Merritt) Eco-Depot	Recycling Depot	56
	18	Lytton Eco Depot	Recycling Depot	30
	19	Paul Lake Transfer Station	Transfer Station/Recycling Depot	40
	20	Savona Transfer Station	Transfer Station/Recycling Depot	24
	21	South Thompson (Pritchard) Eco-Depot	Recycling Depot	48
	22	Spences Bridge Transfer Station	Transfer Station/Recycling Depot	16
	23	Sun Peaks Transfer Station	Transfer Station/Recycling Depot	40
	24	Tranquille Valley Transfer Station	Transfer Station/Recycling Depot	8
	25	Upper Nicola Transfer Station	Transfer Station/Recycling Depot	32
	26	Vavenby Transfer Station	Transfer Station/Recycling Depot	16
	26	Westwold Transfer Station	Transfer Station/Recycling Depot	16
	28	Heffley Creek Landfill	Landfill	48
	29	Lower Nicola Landfill	Landfill	56

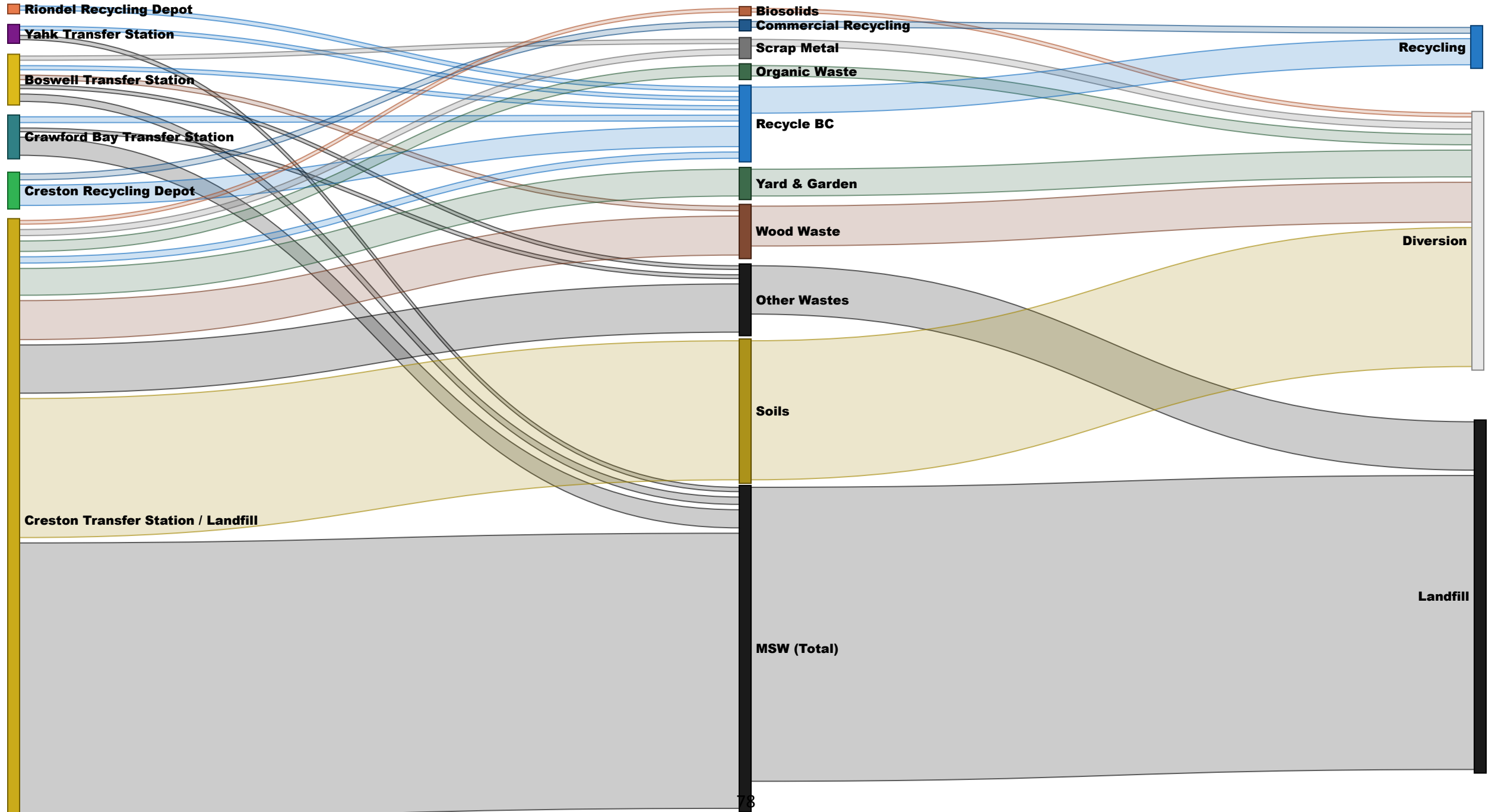
Appendix B

Waste Flow Mapping Figures

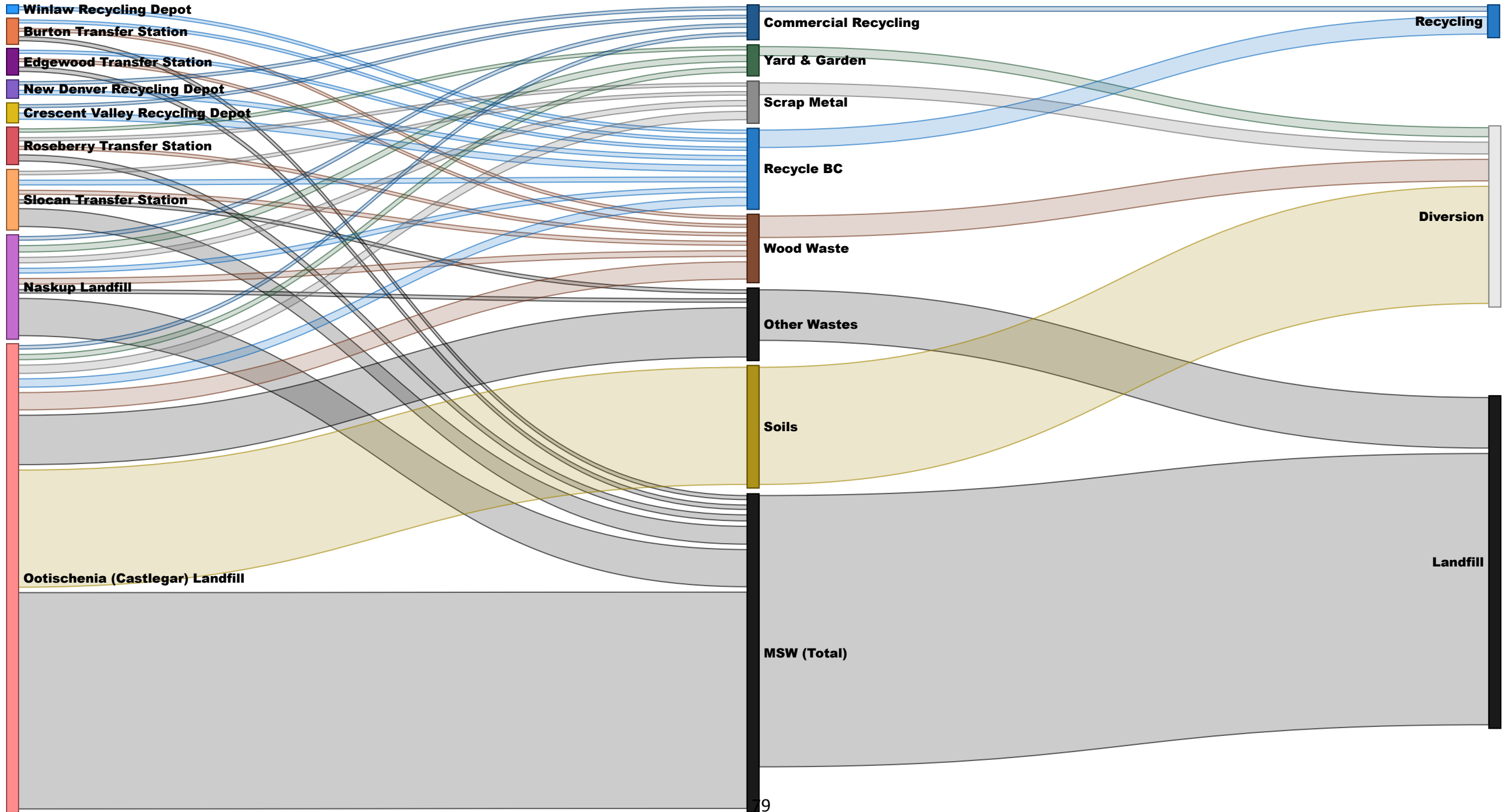
Waste Flow Sankey: Central Sub-Region (By Weight)



Waste Flow Sankey: East Sub-Region (By Weight)



Waste Flow Sankey: West Sub-Region (By Weight)





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Committee Report

Date of Report: November 6, 2024
Date & Type of Meeting: November 16, 2024, Joint Resource Recovery Committee
Author: Akane Norimatsu, Resource Recovery Technician
Subject: RECYCLE BC- NEW STATEMENT OF WORK AND MASTER SERVICE AGREEMENT
File: 12-6500
Electoral Area/Municipality: Entire RDCK

SECTION 1: EXECUTIVE SUMMARY

The purpose of this report is to share key changes in the new Master Service Agreement (MSA) and Scope of Work (SOW) for Recycle BC (RBC) with the Joint Resource Recovery Committee, and to seek feedback and direction on these new agreements.

SECTION 2: BACKGROUND/ANALYSIS

The RDCK elected to join RBC's recycling program for residential Packaging and Paper like Products (PPP) and the Board authorized to sign the MSA and SOW effective on September 1, 2019 ending on August 31 2024. RBC extended the term until December 31, 2024 to align with the majority of their collection partners in B.C.

RBC's MSA and SOW are due for renewal on January 1, 2025. RBC commenced Collector Engagement in March 2024, and issued a cost survey in May 2024 to obtain information from their collection partners. A Working Group (WG) was formed for further engagement and consultation in June 2024. RDCK Staff was a member of the WG to represent depot collection partners in rural Regional Districts and participated in four engagement meetings. The RDCK received draft MSA and SOW in September 2024. Staff responded to RBC with several key feedback and few amendment requests. On November 4, 2024, Staff received the final MSA and SOW from Recycle BC. The RDCK is obligated to respond to RBC by December 16, 2024.

There are a few key amendments made in the new MSA and SOW, summarized in Attachment A, including new incentive rates as shown in Attachment B. The total estimated incentives that the RDCK will receive in 2025 is \$897,291 based on material collected between August 1, 2023 and July 31, 2024. This is a significant increase (118%) from the \$410,808 received in 2023. A full breakdown of the RDCK's estimated incentives for 2025 is shown in Attachment C and Financial Consideration for the new SOW will be further discussed in Section 3.

The cost survey data from 69 depot collectors throughout BC, including the RDCK, was used to develop the new incentive rate model. It was a welcome result to most Depot Collectors that the overall incentive rates have largely increased (see Table 3 in Section 3). The Cost Study clearly indicated the operational cost per tonne increases as the size of the depot decreases. Therefore, RBC adopted fee rates for each material based on the Depot Fee Group determined by the total annual tonnage of all materials collected at each Core depot. There are 4 different Depot Fee Groups identified under the new SOW, which is shown in Attachment B. Table 1 below displays Depot Fee Groups for each Core Depot in the RDCK. As it shows, most of the RDCK depots are classified under Depot Fee

Group 1 or 2 according to the annual total tonnage data of all materials. Under the new incentive rate model, the bigger the Depot Fee Group is the lower the incentive rates the depot receives. Moreover, the fee differentiation by location inside or outside a community with curbside has been removed from the new incentive rate model.

Staff sent feedback to RBC regarding the classification of Depot Fee Group for Salmo, Crescent Valley and Kaslo Recycling Depots, RBC reviewed and agreed to lower Depot Fee Group from 3 to 2 for Crescent Valley, however the others remained the same Depot Fee Groups (Depot Fee Group 2).

Table 1: RDCK Depots and Depot Fee Groups 2025-2026

Depot Name	Depot Fee Group	Annual Total Depot Tonnage
Balfour Transfer Station	3	≥ 125 or ≤ 400
Ootischenia Landfill	3	≥ 125 or ≤ 400
Crawford Bay Transfer Station	1	< 80
Crescent Valley Hall	2	> 80 or < 125
Creston Car Wash	3	≥ 125 or ≤ 400
Edgewood Transfer Station	1	< 80
Kaslo Transfer Station	2	> 80 or < 125
Nakusp Landfill	1	< 80
Nelson Lakeside	4	≥ 400
New Denver	1	< 80
Salmo Village	2	> 80 or < 125
Slocan Transfer Station	1	< 80

The other significant amendment related to incentive rate is a clause for an Annual Price Adjustment. RBC will adjust the incentive rates annually on the first day of January of each year. RBC reserves the right to choose the adjustment mechanism to be used each year, which could be either through another cost study or using Customer Price Index (CPI) for BC to calculate the new incentive rates.

Other major amendments from the previous MSA and SOW are listed in Attachment A. In the new SOW, no more than 5% by weight of Not Accepted Materials will be accepted and this used to be 3%. Moreover, RBC changed cross contamination (means including incorrect category materials in the same container) limit for certain material types such as Flexible Plastics and Styrofoam from 3% to 5%. However, they have lowered the accepted cross contamination rate from 3% to 1.5% for the Glass category.

Under the new SOW, the RDCK’s Industrial, Commercial, and Institutional (ICI) recycling management option remains Option 1 (No ICI service) or Option 2 (separate ICI service). RBC removed Option 4 for ICI recycling, so that a fixed 25% automatic deduction for inclusion of ICI materials will no longer be available. Option 3 uses an approved methodology to determine the actual percentage of ICI materials accepted at a particular depot. Options 3 and 4 were not made available to the RDCK at the time of the original agreement with RBC due to significant upheaval in the global recycling market. Staff inquired regarding the inclusion of ICI materials, using Option 3, at Core Depots in the RDCK and how it will affect the incentive rate calculation and post collection costs to the RDCK. RBC responded that Option 3 could be negotiated at any time, however, there remains a reluctance to add ICI and after further investigation it is not clear if it would be more economical for the RDCK than the current separate ICI service. RBC deducts the percentage of ICI volume from total incentives from Depots accepting ICI Packaging and Paper Products (PPP) and collection partners are required to cover the costs for hauling and processing of ICI PPP by RBC’s

Designated Post-Collection Provider. Staff will continue to investigate inclusion of ICI in the RBC program and will return to the JRRRC if it is deemed a beneficial consideration.

Recycle BC requests all collection partner respond by December 16, 2024 and either sign the new MSA and SOW or request an extension of the existing MSA and SOW till May 2025 for further negotiation. With both options, Recycle BC will adopt the new incentive rates from January 1, 2025.

Staff recommend the Board authorize to sign the new MSA and SOW with Recycle BC for the contracted period effective on January 1, 2025 to December 31, 2029.

SECTION 3: DETAILED ANALYSIS

3.1 Financial Considerations – Cost and Resource Allocations:
Included in Financial Plan: Yes No **Financial Plan Amendment:** Yes No
Debt Bylaw Required: Yes No **Public/Gov't Approvals Required:** Yes No

The new incentives are calculated based on the incentive rates per material category under different Depot Fee Groups (see Attachment B). Table 2 shows the breakdown of summary of estimated incentives in 2025. It is estimated that with the new incentive rates, the RDCK may receive approximately \$897,291 in incentives in 2025, which is a 118% increase compared to the \$410,808 received in 2023. Actual incentives received in 2025 will depend on the volume collected at each Depot over the year.

Table 2: Summary of Estimated Incentives

	Estimated Incentives 2025	Incentives received 2023	Difference	Increase rate (%)	Total operational cost 2023	Estimated costs to RDCK taxpayers
Central	\$375,542	\$188,535	\$187,007	99%	\$603,337	\$227,795
West	\$303,138	\$129,421	\$173,607	134%	\$402,290	\$99,152
East	\$218,710	\$92,852	\$125,858	136%	\$388,976	\$170,266
Total	\$897,291	\$410,808	\$486,472	118%	\$1,394,803	\$497,213

As Table 2 indicates, all Subregions in the RDCK will receive higher incentives compared to incentives received in 2023. Estimated incentives in West subregion are transferred to Central and East (Based on A117 Central: \$29,859, A116 East: \$24,553 in 2023) to reflect the equalization transfers between subregions. The West Subregion will recover approximately 75% of the operational costs in 2025, while Central and East Subregion will recover 62% and 56% of operational costs, respectively. Without the equalization transfers, the West Subregion would recover approximately 89% of operational costs, while Central and East Subregion will recover 57% and 50% of operational costs, respectively. Table 3 below shows the current incentive rates with and without curbside collection services, and Table 4 shows the increase rate for each material per Depot Fee Group’s new rate from the current incentive rate model.

Table 3: Current Incentive Rates

	Mixed Paper	Mixed Container	Glass	Flexible Plastics	Expanded Polystyrene
Current (w/out Curbside)	\$138.16	\$265.33	\$90.00	\$1,250.00	\$2,000.00
Current (w/Curbside)	\$94.20	\$141.30	\$90.00	\$1,250.00	\$2,000.00

Table 4 below indicates that most Depots will receive significantly higher incentive rates compared to the current rates for both with and without curbside collection services. In the previous incentive rate model, Depots were receiving lower incentive rates when they are located inside the curbside collection service areas.

Table 4: Relative Increase to Current Rates

Depot Size	Mixed Paper	Mixed Container	Glass	Flexible Plastics	Expanded Polystyrene
Depot Fee Group 1: <80t					
Without Curbside	248%	281%	778%	68%	313%
With Curbside	436%	615%	778%	68%	313%
Depot Fee Group 2: ≥80t or <125t					
Without Curbside	153%	202%	561%	10%	210%
With Curbside	272%	466%	561%	10%	210%
Depot Fee Group 3: ≥125t or <400t					
Without Curbside	56%	198%	278%	0%	67%
With Curbside	128%	459%	278%	0%	67%
Depot Fee Group 4: ≥400t					
Without Curbside	-6%	100%	228%	0%	18%
With Curbside	38%	275%	228%	0%	18%

Staff analysis of tonnage per material per depot demonstrated that depots such as Lakeside, Creston Car Wash, and Ootischenia Landfill received relatively high tonnages of materials eligible for municipal curbside collection, suggesting less than ideal participation rates in curbside programs. RBC pays per household incentive for curbside programs that does not change to reflect the amount collected. Whereas, if a RDCK depot receives curbside eligible materials it may result in a larger Depot Group classification, and therefore, a lower incentive rate for all materials collected at that depot. Staff has noted this with RBC and will collaborate with municipalities to encourage use of curbside programs to reduce potential cost impacts to the RDCK.

Although RBC has significantly increased their BC-wide incentive rates, the incentives projected to be received by the RDCK will still not fully fund the existing RBC program in the RDCK. Leaving a relatively large portion of costs associated with this service to be paid by taxation. RBC states their fees are designed to cover fair and reasonable collection costs borne by collectors operating efficient programs, but are not designed to cover the full collection costs of all collectors. Therefore it could be challenging to negotiate for further increase in incentive rates after several financial reviews has already been conducted by RBC this year.

Results from Tipping Fee and System Efficiency Study, being presented to JRR in November 2024, should be considered to further reduce the taxation to fund recycling services. This could include the closure of some Satellite Recycling Depots and reduction of hours of operation at low volume/traffic depots.

3.2 Legislative Considerations (Applicable Policies and/or Bylaws):

N/A

3.3 Environmental Considerations

Continuing with Recycle BC's program in the RDCK will secure well established recycling services in the communities, cover wide range of residential packaging and paper products to be collected and recycled responsibly through their program.

3.4 Social Considerations:

N/A

3.5 Economic Considerations:

N/A

3.6 Communication Considerations:

N/A

3.7 Staffing/Departmental Workplace Considerations:

N/A

3.8 Board Strategic Plan/Priorities Considerations:

The RDCK Board Strategic Plan points out the importance of continuous investment in sustainable, cost-effective diversion program for our residents.

SECTION 4: OPTIONS & PROS / CONS

Option 1: That the Board approve the RDCK enter into a new Master Service Agreement and Scope of Work with MMBC Recycling Inc. for the period January 1 2025 to December 31, 2029 for hosting and operating residential recycling depots, and that the Chair and Corporate Officer be authorized to sign the necessary documents.

PROS: The RDCK will be able to renew the Depot Collective Services Agreement with Recycle BC for the next five years with relatively minor and mainly positive changes from the current MSA and SOW and with much higher incentive rates.

CONS: The RDCK will lose the opportunities to continue negotiating the agreement.

Option 2: That the Board authorize Staff to extend the current Master Service Agreement and Scope of Work with Recycle BC till May 2025 and direct Staff to continue negotiating with Recycle BC for further amendments.

PROS: There may be more opportunities for the RDCK to negotiate with Recycle BC for further increase in incentives.

CONS: The RDCK will not be able to execute the agreement around the same time as the majority of other Regional Districts and municipalities, and Recycle BC may not consider further increase in incentive rates for the RDCK.

SECTION 5: RECOMMENDATIONS

That the Board approve the RDCK enter into a new Master Service Agreement and Scope of Work with MMBC Recycling Inc. for the period January 1, 2025 to December 31, 2029 for hosting and operating residential recycling depots, and that the Chair and Corporate Officer be authorized to sign the necessary documents.

Respectfully submitted,

Akane Norimatsu- Resource Recovery Technician

CONCURRENCE

General Manager, Environmental Service– Uli Wolf

Resource Recovery Manager – Amy Wilson

Chief Administrative Officer – Stuart Horn

ATTACHMENTS:

Attachment A – Recycle BC Statement of Work and Master Service Agreement Significant Changes

Attachment B – Recycle BC New Collection Fee Rates

Attachment C – Financial Assessment: RDCK Estimated Incentives 2025

Attachment D – New Master Service Agreement

Attachment E – New Statement of Work



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Recycle BC Statement of Work and Master Service Agreement Significant Changes

Curbside Statement of Work (SOW)

- In Section 1 several definitions were added and improved clarity of the ICI definition.
- In clause 2.1.2, the Not-Accepted Material rate changed from 3% to 5% and Cross-contamination limit in Flexible Plastics increased to 5%.
- In clause 2.1.4 changes made to Customer-owned Collection Container requirements to address incompatibility and safety and Collection Container delivery timeframe changed.
- In clause 2.1.5 language added around delivery of material, Reduced Split Weighing, Collection Container retrieval and change of a Designated Post-Collection Facility. Language added around closure of a receiving facility for longer than 3 business days.
- In clause 2.1.7 language added about collecting multi-family building material together with curbside material.
- In Section 2.2 simplification of requirements around customer service
- In clause 2.2.1 added language to allow for toll-free customer service numbers (i.e. RCBC).
- In clause 2.2.3 changed the response time from 24 hours to 2 business days.
- In Section 3.3 SOW changes to specific requirements on cost study report and non-financial auditor response. Changed ad-hoc reports to 2 reports, to a max of 40 staff hours, and anything beyond that to be discussed and agreed with Recycle BC.
- In attachment 3.4 to schedule 2.1(a) the clean-up of spillage language amended to “within two hours of notification of incident...”. Addition of Service Level Failure 11 and changes to the failure or inaccurate reporting Service Level Failures
- In attachment 3.4 to schedule 2.1(a) changed “will...” to “may incur Service Level Failure Credits...”.
- In attachment 5 to schedule 2.1(a) the Bonus has been updated to reward low contamination, rather than capture rate. Anyone with less than 4% Not-Accepted Material rate becomes eligible for and Achieved Bonus Amount, assuming a minimum number of audits.
- In attachment 5 to schedule 2.1(a) Curbside Collection Fees will undergo a pricing adjustment on an annual basis using either the Consumer Price Index or cost study adjustment mechanism.

Multi-Family Statement of Work

- In Section 1 several definitions were added and improved clarity of the ICI definition.

- In clause 2.1.2, the Not-Accepted Material rate changed from 3% to 5% and Cross-contamination limit in Flexible Plastics increased to 5%.
- In clause 2.1.2 language was added to clarify when enhanced services apply.
- In clause 2.1.4 changes made to Customer-owned Collection Container requirements to address incompatibility and safety and Collection Container delivery timeframe changed.
- In clause 2.1.5 language added around delivery of material, Reduced Split Weighing, Collection Container retrieval and change of a Designated Post-Collection Facility. Language added around closure of a receiving facility for longer than 3 business days.
- In Section 2.2 simplification of requirements around customer service
- In clause 2.2.1 added language to allow for toll-free customer service numbers (i.e. RCBC).
- In clause 2.2.3 changed the response time from 24 hours to 2 business days.
- In Section 3.3 SOW changes to specific requirements on cost study report and non-financial auditor response. Changed ad-hoc reports to 2 reports, to a max of 40 staff hours, and anything beyond that to be discussed and agreed with Recycle BC.
- In attachment 3.4 to schedule 2.1(b) the clean-up of spillage language amended to “within two hours of notification of incident...”. Changes to the failure or inaccurate reporting Service Level Failures.
- In attachment 3.4 to schedule 2.1(b) changed “will...” to “may incur Service Level Failure Credits...”.
- In attachment 5 to schedule 2.1(b) the Bonus has been updated to reward low contamination, rather than capture rate. Anyone with less than 4% Not-Accepted Material rate becomes eligible for and Achieved Bonus Amount, assuming a minimum number of audits.
- In attachment 5 to schedule 2.1(b) Multi-Family Collection Fees will undergo an annual pricing adjustment using either the Consumer Price Index or cost study adjustment mechanism.

Depot SOW

- In Section 1 several definitions were added and improved clarity of the ICI definition.
- In clause 2.1.2 Cross-Contamination limit in Flexible Plastics increased to 5% and Not-Accepted Material rate changed from 3% to 5%.
- In clause 2.1.4 clarification of language on Collection Containers owned by the depot remain the property of the depot.
- In clause 2.1.6 removed ICI option 4 – Automatic 25% deduction of fixed ICI percentage and ICI Option 3 simplified to allow reliance on methodology not SOW language.
- In Section 2.2 simplification of requirements around customer service
- In clause 2.2.1 added language to allow for toll-free customer service numbers (i.e. RCBC).
- In clause 2.2.2 changed the response time from 24 hours to 2 business days.

- In Section 3.4 changes to specific requirements on cost study report and non-financial auditor response. Changed ad-hoc reports to 2 reports, to a max of 40 staff hours, and anything beyond that to be discussed and agreed with Recycle BC.
- In Section 6 a Reuse clause was added “with prior written approval... no Beverage Containers”.
- In attachment 3.5 to schedule 2.1(c) changed “will...” to “may incur Service Level Failure Credits...”, changed SLFC amounts to a percentage of annualized fee, with a dollar cap.
- In attachment 5 to schedule 2.1(c) Depot Collection Fees will undergo a pricing adjustment using either the Consumer Price Index or cost study adjustment mechanism.

Master Services Agreement (MSA)

- In Section 1 several definitions were added, including common name material categories to replace the historic numbered categories. List of materials included within each material category is now referred back to the material list housed on the Recycle BC website.
- In Section 2 “Change Response” requirements amended from 5 days to twenty days and “Change Proposal” requirement amended from fifteen days to thirty days.
- A new clause 4.4.3 was added regarding Service Level Failure and Service Level Failure Credits.
- Edited Section 13 Termination by Contractor for Cause by adding an option to terminate an individual SOW rather than the entire MSA.
- In Section 15 “epidemic” and “prolonged power failure” added to Force Majeure.
- Removed “Post-Collection Responsibilities” from schedule 4.2 Recycle BC Policies and Standards.
- Removed “PPP” table from schedule 4.2 Recycle BC Policies and Standards and added a “Materials List” definition linking to the material list on the Recycle BC website.



Dear Collector,

Recycle BC is pleased to confirm the new collection fee rates (or collection financial incentive as it is referred to in certain statements of work (“**SOW**”)) for curbside, multi-family and depot contractors that will be effective January 1, 2025 (the “**Rates**”).

The Rates are only applicable to contractors that have entered into a Master Services Agreement (“**MSA**”) with Recycle BC and such MSA provides for curbside, multi-family or depot collection services under a SOW. The Rates will be applied automatically to all non-direct service curbside, multi-family and depot contractors participating in the Recycle BC program.

The Rates are set out in the following Exhibits to this letter:

- Exhibit A — Curbside Rates
- Exhibit B — Multi-Family Rates
- Exhibit C — Depot Rates

The Rates may use updated terminology to refer to categories of materials, compared to the MSA you have entered into. Please refer to Exhibit D, which sets out the defined terms that shall apply to this rate change letter.

If you have any questions regarding these rates, please contact: agreements@recyclebc.ca.

Sincerely,

Tamara Burns
Executive Director, Western Canada



**Exhibit A
Curbside Rates**

Curbside Collection Fee / Curbside Collection Financial Incentive	
Collection Type	\$ per Curbside Household per Year
Single-Stream using automated carts – Mixed Containers and Paper and Cardboard	\$41.00
Single-Stream using Collection Containers other than automated carts – Mixed Containers and Paper and Cardboard	\$42.60
Multi-Stream – Paper and Cardboard separate from Mixed Containers	\$71.10
Flexible Plastics - which must be segregated from all other PPP	\$8.00

Top Up Fee	\$ per Curbside Household per Year
Resident Education Top Up	\$1.25
Service Administration Top Up	\$3.75

Curbside Collection Glass Bottles and Jars Fee / Curbside Collection Financial Incentive	
	\$ per Tonne
Glass Bottles and Jars	\$80.00



**Exhibit B
Multi-Family Rates**

Multi-Family Collection Fee / Multi-Family Collection Financial Incentive	
Collection Type	\$ per Multi-Family Household per Year
Single-Stream – Mixed Containers and Paper and Cardboard	\$19.60
Multi-Stream – Paper and Cardboard separate from Mixed Containers	\$31.20
Flexible Plastics - which must be segregated from all other PPP	\$4.00

Top Up Fee	\$ per Multi-Family Household per Year
Resident Education Top Up	\$1.25
Service Administration Top Up	\$2.15

Multi-Family Glass Bottles and Jars Fee / Multi-Family Building Collection Financial Incentive	
	\$ per Tonne
Glass Bottles and Jars	\$80.00



**Exhibit C
Depot Rates**

Depot Collection Fees / Depot Financial Incentive (\$/Tonne)						
Depot Fee Group	Materials					
	Paper and Cardboard	Mixed Containers	Flexible Plastics	White Foam Packaging	Coloured Foam Packaging	Glass Bottles and Jars
Depot Fee Group 1 (< 80 Tonnes)						
Fee	\$505.00	\$1,010.00	\$2,095.00	\$8,250.00	\$8,250.00	\$790.00
Baling Fee	+ \$180.00	+ \$190.00	+ \$790.00	n/a	n/a	n/a
Depot Fee Group 2 (≥ 80 or < 125 Tonnes)						
Fee	\$350.00	\$800.00	\$1,375.00	\$6,195.00	\$6,195.00	\$595.00
Baling Fee	+ \$180.00	+ \$190.00	+ \$790.00	n/a	n/a	n/a
Depot Fee Group 3 (≥ 125 or < 400 Tonnes)						
Fee	\$215.00	\$790.00	\$1,250.00	\$3,330.00	\$3,330.00	\$340.00
Baling Fee	+ \$180.00	+ \$190.00	+ \$790.00	n/a	n/a	n/a
Depot Fee Group 4 (≥ 400 Tonnes)						
Fee	\$130.00	\$530.00	\$1,250.00	\$2,365.00	\$2,365.00	\$295.00
Baling Fee	+ \$180.00	+ \$190.00	+ \$790.00	n/a	n/a	n/a



Exhibit D Material Definitions

In this letter, the following terms shall have the meanings set out below:

“Flexible Plastic” means material listed in the “Flexible Plastics” category of the Materials List.

“Foam Packaging” means material listed in the “Foam Packaging” category of the Materials List.

“Glass Bottles and Jars” means material listed in the “Glass Bottles and Jars” category of the Materials List.

“Materials List” means Recycle BC’s list of accepted materials which is incorporated herein by reference and available here: <https://recyclebc.ca/what-can-i-recycle/>.

“Mixed Containers” means material listed in the “Plastic Containers”, “Cartons and Paper Cups”, “Aluminum Containers” and “Steel Containers” categories of the Materials List.

“Packaging and Printed Paper” or **“PPP”** means Paper and Cardboard, Mixed Containers, Glass Bottles and Jars, Flexible Plastics and Foam Packaging.

“Paper and Cardboard” means material listed in the “Paper” and “Paper Packaging and Cardboard” categories of the Materials List.

ATTACHMENT C

ATTACHMENT C- Financial Assessment: RDCK Estimated Incentives 2025

		EXTENDED POLYSTYRENE			MIXED PAPER			MIXED CONTAINERS			GLASS			FLEXIBLE PLASTICS			Total Inceives/ sub-region
	SIZE	TONNAGE	RATE	INCENTIVE	TONNAGE	RATE	INCENTIVE	TONNAGE	RATE	INCENTIVE	TONNAGE	RATE	INCENTIVE	TONNAGE	RATE	INCENTIVE	
Balfour Transfer Station	3	1.396	\$3,330	\$ 4,648.68	85.567	\$215	\$ 18,396.91	25.303	\$790	\$ 19,989.37	22.411	\$340	\$ 7,619.74	6.465	\$1,250	\$ 8,081.25	
Kaslo Transfer Station	2	1.048	\$6,195	\$ 6,492.36	49.588	\$350	\$ 17,355.80	19.056	\$800	\$ 15,244.80	23.943	\$595	\$ 14,246.09	4.4	\$1,375	\$ 6,050.00	
Nelson Lakeside	4	6.038	\$2,365	\$ 14,279.87	354.835	\$130	\$ 46,128.55	79.918	\$530	\$ 42,356.54	135.394	\$295	\$ 39,941.23	27.535	\$1,250	\$ 34,418.75	
Salmo Village	2	0.704	\$6,195	\$ 4,361.28	53.873	\$350	\$ 18,855.55	19.307	\$800	\$ 15,445.60	13.01	\$595	\$ 7,740.95	2.931	\$1,375	\$ 4,030.13	
Central Sub-region Subtotal				\$ 29,782.19			\$ 100,736.81			\$ 93,036.31			\$ 69,548.01			\$ 52,580.13	\$ 345,683.44
Edgewood Transfer Station	1	0.124	\$8,250	\$ 1,023.00	7.651	\$505	\$ 3,863.76	3.319	\$1,010	\$ 3,352.19	2.544	\$790	\$ 2,009.76	1.042	\$2,095	\$ 2,182.99	
Crescent Valley Hall	2	1.314	\$6,195	\$ 8,140.23	73.94	\$350	\$ 25,879.00	25.21	\$800	\$ 20,168.00	21.274	\$595	\$ 12,658.03	8.313	\$1,375	\$ 11,430.38	
Nakusp Landfill	1	0.974	\$8,250	\$ 8,035.50	40.905	\$505	\$ 20,657.03	15.863	\$1,010	\$ 16,021.63	16.096	\$790	\$ 12,715.84	3.333	\$2,095	\$ 6,982.64	
New Denver Village	1	0.627	\$8,250	\$ 5,172.75	32.79	\$505	\$ 16,558.95	10.63	\$1,010	\$ 10,736.30	9.095	\$790	\$ 7,185.05	2.903	\$2,095	\$ 6,081.79	
Ootischenia Landfill	3	3.711	\$3,330	\$ 12,357.63	135.059	\$215	\$ 29,037.69	26.51	\$790	\$ 20,942.90	46.63	\$340	\$ 15,854.20	13.305	\$1,250	\$ 16,631.25	
Slocan Transfer Station	1	0.558	\$8,250	\$ 4,603.50	45.11	\$505	\$ 22,780.55	16.727	\$1,010	\$ 16,894.27	13.907	\$790	\$ 10,986.53	3.106	\$2,095	\$ 6,507.07	
West Sub-region Subtotal				\$ 39,332.61			\$ 118,776.97			\$ 88,115.29			\$ 61,409.41			\$ 49,816.11	\$ 357,450.38
Crawford Bay Transfer Station	1	0.433	\$8,250	\$ 3,572.25	45.361	\$505	\$ 22,907.31	14.312	\$1,010	\$ 14,455.12	9.905	\$790	\$ 7,824.95	3.343	\$2,095	\$ 7,003.59	
Creston Car Wash	3	2.995	\$3,330	\$ 9,973.35	190.168	\$215	\$ 40,886.12	54.752	\$790	\$ 43,254.08	52.776	\$340	\$ 17,943.84	21.069	\$1,250	\$ 26,336.25	
East Sub-region Subtotal				\$ 13,545.60			\$ 63,793.43			\$ 57,709.20			\$ 25,768.79			\$ 33,339.84	\$ 194,156.85
TOTALS				\$ 165,320.80			\$ 566,614.39			\$ 477,721.60			\$ 313,452.41			\$ 271,472.13	\$ 897,290.67
Old incentive			\$2,000	\$ 35,857.80			\$152,103.43			\$ 80,279.13			\$ 29,977.78			\$112,590.28	\$ 410,808.42
*Tonnages above for core depots also include nearest satellite depot tonnages																	

MASTER SERVICES AGREEMENT

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This Master Services Agreement (this “**Agreement**”) is entered into as of January 1, 2025 (“**Effective Date**”)

BETWEEN:

REGIONAL DISTRICT OF CENTRAL KOOTENAY, having a place of business at 202 Lakeside Dr, Nelson, BC V1L 6B9 (“**Contractor**”),

AND:

MMBC RECYCLING INC., a not-for-profit company incorporated under the *Canada Not-for-profit Corporations Act*, carrying on business as Recycle BC (“**Recycle BC**”).

RECITALS:

- A. WHEREAS Recycle BC represents companies and organizations (“**Producers**”) that supply products in packaging and printed paper to residents of British Columbia obligated under the *Recycling Regulation* (the “**Regulation**”) under the *Environmental Management Act* (British Columbia);
- B. WHEREAS Recycle BC developed the Packaging and Printed Paper Stewardship Plan;
- C. WHEREAS the Packaging and Printed Paper Stewardship Plan was approved by the Director, Waste Management, Environmental Standards Branch, Ministry of Environment on April 15, 2013;
- D. WHEREAS Recycle BC is meeting Producers’ obligations under the Regulation by implementing the Packaging and Printed Paper Stewardship Plan, including through this Agreement; and
- E. WHEREAS Recycle BC wishes to receive, and Contractor wishes to provide, the services set out in this Agreement, and the parties wish to foster dialogue and a good business relationship in carrying out such services.

NOW THEREFORE, in consideration of the mutual covenants and obligations contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Recycle BC and Contractor agree as follows:

SECTION 1. INTERPRETATION

1.1. Definitions. In this Agreement, the following terms will have the following meanings:

“**Affiliate**” means any entity controlled by, controlling, or under common control with a party.

“**Agreement**” has the meaning set out on the first page of this document.

“**Applicable Law**” means any domestic or foreign law, rule, statute, subordinate legislation, regulation, by-law, order, ordinance, protocol, code, guideline, treaty, policy, notice, direction or judicial, arbitral, administrative, ministerial or departmental judgment, award, decree, treaty, directive, or other requirement or guideline published or in force at any time during the Term which applies to or is otherwise intended to govern or regulate any person (including any party), property, transaction, activity, event or other matter, including any rule, order, judgment, directive or other requirement or guideline issued by any governmental or regulatory authority.

“**Business Continuity Plan**” has the meaning set out in Section 4.5.

“Business Day” means any day other than a Saturday, Sunday or statutory holiday in the Province of British Columbia.

“Change” has the meaning set out in Section 2.2.1.

“Change Proposal” has the meaning set out in Section 2.2.3.

“Change Response” has the meaning set out in Section 2.2.2.

“Change Request” has the meaning set out in Section 2.2.1.

“Confidential Information” means information of or relating to a party (the **“Disclosing Party”**) that has or will come into the possession or knowledge of the other party (the **“Receiving Party”**) whether such information is or has been conveyed verbally or in written or other tangible form, and whether such information is acquired directly or indirectly such as in the course of discussions or other investigations by the Receiving Party, that: (a) where Recycle BC is the Disclosing Party, is any information of Recycle BC or relating to its business or affairs including technical, financial and business information, ideas, concepts or know-how, Services performance and Services delivery reporting information, and the terms of this Agreement; and (B) where Contractor is the Disclosing Party, is limited to financial information of Contractor. However, Confidential Information does not include information that: (i) was already known to the Receiving Party, without obligation to keep it confidential, at the time of its receipt from the Disclosing Party; or (ii) is or becomes available to the public other than as a result of a breach hereof by the Receiving Party; provided that the foregoing exceptions will not apply with respect to any personal information that is subject to Privacy Laws.

“Contractor” has the meaning set out on the first page of this Agreement.

“Designated Post-Collection Facility” means the facility at which Contractor delivers Contractor-collected Inbound Material to the Designated Post-Collection Service Provider.

“Designated Post-Collection Service Provider” means the entity, designated by Recycle BC, to receive Contractor-collected Inbound Material.

“Dispute” has the meaning set out in Section 14.1.

“Effective Date” has the meaning set out on the first page of this Agreement.

“Fees” has the meaning set out in Section 5.1.

“Flexible Plastics” means material listed in the “Flexible Plastics” category of the Materials List.

“Foam Packaging” means material listed in the “Foam Packaging” category of the Materials List.

“Force Majeure” has the meaning set out in Section 15.3.

“Glass Bottles and Jars” means material listed in the “Glass Bottles and Jars” category of the Materials List.

“Inbound Material” has the meaning set out in Schedule 4.2.

“Intellectual Property Rights” means inventions, patents, copyrights, trademarks, industrial designs, integrated circuit topography rights, know-how, trade secrets, Confidential Information, and any other intellectual property rights whether registered or unregistered, and including rights in any application for any of the foregoing.

“Key Personnel” has the meaning set out in Section 6.2.

“Labour Disruption” has the meaning set out in Section 4.6.2.

“Materials List” means Recycle BC’s list of accepted materials which is incorporated herein by reference and available here: <https://recyclebc.ca/what-can-i-recycle/>.

“Mixed Containers” means material listed in the “Plastic Containers”, “Cartons and Paper Cups”, “Aluminum Containers” and “Steel Containers” categories of the Materials List.

“Other Service Providers” has the meaning set out in Section 11.2.

“Packaging and Printed Paper” or **“PPP”** means Paper and Cardboard, Mixed Containers, Glass Bottles and Jars, Flexible Plastics and Foam Packaging.

“Paper and Cardboard” means material listed in the “Paper” and “Paper Packaging and Cardboard” categories of the Materials List.

“Privacy Laws” has the meaning set out in Section 9.4.

“Recycle BC” has the meaning set out on the first page of this Agreement.

“Recycle BC Policies and Standards” has the meaning set out in Section 4.2.

“Regulation” has the meaning set out on the first page of this Agreement.

“Representatives” has the meaning set out in Section 9.1.

“Service Level Failure” has the meaning set out in Section 4.4.2.

“Service Level Failure Credit” has the meaning set out in Schedule 4.4.

“Service Levels” has the meaning set out in Section 4.4.1.

“Services” has the meaning set out in Section 2.1.

“Statement of Work” or **“SOW”** means any statement of work attached hereto or as may from time to time be issued hereunder.

“Term” has the meaning set out in Section 3.1.

“Withheld Taxes” has the meaning set out in Section 5.5.

“Work Product” means the deliverables to be created or provided to Recycle BC by Contractor pursuant to any Statement of Work and any data, records, and reports that have been prepared, created, written or recorded in performance of the Services, whether by Contractor, Recycle BC, or Contractor and Recycle BC together.

1.2. Interpretation.

1.2.1. The terms ‘including’ and ‘includes’ are not terms of limitation.

1.2.2. Any capitalized term used in this Agreement that is not defined herein will have the generally accepted industry or technical meaning given to such term.

- 1.2.3. In this Agreement, words importing the singular number will include the plural and vice versa, and words importing the use of any gender will include the masculine, feminine and neuter genders and the word “person” will include an individual, a trust, a partnership, a body corporate, an association or other incorporated or unincorporated organization or entity.
- 1.2.4. The headings in this Agreement are solely for convenience of reference and will not be used for purposes of interpreting or construing the provisions hereof.
- 1.2.5. Unless otherwise provided for herein, all monetary amounts referred to herein will refer to the lawful money of Canada.
- 1.2.6. When calculating the period of time within which or following which any act is to be done or step taken pursuant to this Agreement, the date which is the reference date in calculating such period will be excluded. If the last day of such period is not a Business Day, then the time period in question will end on the first Business Day following such non-Business Day.
- 1.2.7. Any references in this Agreement to any law, by-law, rule, regulation, order or act of any government, governmental body or other regulatory body, including any Applicable Law, will be construed as a reference thereto as amended or re-enacted from time to time or as a reference to any successor thereto.
- 1.3. Schedules. As of the Effective Date, the following Schedules form part of this Agreement (note that Schedule numbering is not sequential and is based on a related section reference):

Schedule	Description
Schedule 2.1(c)	– Statement of Work for Depot Collection Services
Schedule 4.2	– Recycle BC Policies and Standards
Schedule 4.4	– Service Level Methodology
Schedule 12.1	– Insurance Requirements

- 1.4. Priority. In the event of any inconsistency between any of the provisions of the main terms and conditions of this Agreement, any Schedule that is not a Statement of Work, and any Statement of Work, the inconsistency will be resolved by reference to the following descending order of priority: (i) Section 1 through Section 15 of this Agreement; (ii) the Schedules annexed to this Agreement that are not Statements of Work; and (iii) the applicable Statement of Work, except to the extent a Statement of Work expressly states that it is intended to have priority over the main body of this Agreement or a Schedule referred to in subsection (ii), in which case the Statement of Work will have priority but solely with respect to such Statement of Work.

SECTION 2. SCOPE OF SERVICES

- 2.1. Services. Contractor will perform the services set out in each Statement of Work, including the delivery of any Work Product, and any services that are inherent, necessary, or customarily provided as part of those services (collectively, the “**Services**”), all in accordance with the terms and conditions of this Agreement and the applicable Statement of Work, which shall be appended hereto as part of Schedule 2.1. Each Statement of Work will be effective, incorporated into and form a part of this Agreement when mutually accepted and duly executed by both parties.
- 2.2. Changes.
 - 2.2.1. Recycle BC may, at any time and from time to time, request additions, deletions, amendments or any other changes to the Services set out in any Statement of Work or the manner in which such Services shall be performed (a “**Change**”) by issuing a “**Change Request**”. Contractor

acknowledges that Recycle BC may be dependent on Contractor for the provision of the Services and, accordingly, acknowledges and agrees that Contractor shall be required to make a good faith Change Proposal (as defined below).

- 2.2.2. Contractor will provide an initial response to any Change Request (a “**Change Response**”) within twenty (20) Business Days following receipt of such Change Request, such response to indicate whether Contractor is able to implement such Change Request. If is not technically possible for Contractor to implement the Change Request, the parties will, on Recycle BC’s request, meet to discuss, in good faith, whether it would be technically possible for Contractor to implement the Change Request.
- 2.2.3. Unless the parties have agreed that it would not be technically possible for Contractor to implement a Change Request, Contractor will provide a detailed proposal (a “**Change Proposal**”) within thirty (30) Business Days of providing the Change Response. Such Change Proposal must include details with respect to the implementation of the Change Request and details of any costs or other changes required to this Agreement or the applicable Statement of Work to comply with the Change Request.
- 2.2.4. Contractor may, at any time and from time to time, request a Change by delivering a Change Proposal (which proposal may be in the form of a business case) to Recycle BC.
- 2.2.5. If Recycle BC, in its sole discretion, accepts a Change Proposal, an authorized Recycle BC representative will provide Contractor with written approval of Recycle BC’s acceptance in the form of an executed change order. If Recycle BC does not accept a Change Proposal, the parties will, on Recycle BC’s request, negotiate in good faith the terms pursuant to which the parties may agree to implement the proposed Change. For the avoidance of doubt, Contractor will not implement any Change to any Statement of Work without Recycle BC’s prior written approval.
- 2.2.6. Contractor will make requested Changes at no additional charge to Recycle BC unless implementing the Change will require Contractor to incur material additional costs, in which case Contractor will deal transparently with Recycle BC, including that Contractor will make available to Recycle BC all supporting information and documentation reasonably requested by Recycle BC that relates to the pricing of the proposed Change.
- 2.3. Non-Exclusive. Neither this Agreement nor any Statement of Work will grant Contractor exclusivity of supply unless expressly stated otherwise, with reference to this Section, in the applicable Statement of Work (and in no event will the scope of such exclusivity extend beyond the scope of Services under such Statement of Work).

SECTION 3. DURATION

- 3.1. Term of Agreement. This Agreement will commence on the Effective Date and will continue until the expiration or termination of the last Statement of Work under this Agreement (the “**Term**”).
- 3.2. Term of Statement of Work. Each Statement of Work will set out the term of the Statement of Work and any terms and conditions relating to the renewal of the Statement of Work.

SECTION 4. SERVICE STANDARDS

- 4.1. Performance. Contractor warrants that Contractor will perform, or cause to be performed (including through appropriate supervision and inspection), the Services and otherwise fulfill its obligations hereunder honestly and in good faith, exercising reasonable skill, care and diligence, in accordance with recognized professional and North American industry standards, practices, and methods, in the applicable jurisdiction, in a timely manner and in accordance with the terms and conditions of this Agreement and any Statement of Work, having regard for the concerns, needs, and interests

of residents and the environment. Except where otherwise set out in the Agreement, all weighing and measurement to be performed by Contractor will be made in accordance with the Recycle BC Policies and Standards on weights and measurements identified in Schedule 4.2.

4.2. Contractor to Comply with Recycle BC Policies and Standards. Contractor will comply at all times with all terms and requirements set out in the policies and standards set out in Schedule 4.2, as such policies and standards may be updated by Recycle BC from time to time, and such other policies and standards that Recycle BC brings to the attention of Contractor from time to time (collectively, "**Recycle BC Policies and Standards**"). Notice of updating of, or new, Recycle BC Policies and Standards may be made by Recycle BC by e-mail to the address set out in Section 15.5 (as such address may be updated pursuant to Section 15.5) and, notwithstanding Section 15.5, such notice will be deemed duly given when so e-mailed, without the need to confirm receipt. If compliance with updated or new Recycle BC Policies and Standards would require a Change and would require Contractor to incur material additional costs, then Contractor may request a Change pursuant to Section 2.2.4 for the implementation of the updated or new Recycle BC Policies and Standards; provided that Contractor must make any such request within thirty (30) days of Recycle BC providing notice of the updated or new Recycle BC Policies and Standards.

4.3. Compliance with Law. Contractor will perform its obligations under this Agreement in a manner that complies with all Applicable Laws, including:

- (a) the *Employment Standards Act* (British Columbia);
- (b) the *Workers' Compensation Act of the Province* (British Columbia) and the *Occupational Health and Safety Regulations* thereunder;
- (c) the *Environmental Management Act* (British Columbia); and
- (d) the *Waste Management Act* (British Columbia).

4.4. Service Levels.

4.4.1. Contractor will continuously monitor each Service in order to identify, measure and report and correct problems and to ensure that Contractor is meeting or exceeding the following service levels (the "**Service Levels**"):

- (a) all service levels set out in this Agreement, including in the applicable Statement of Work; and
- (b) if no service level is provided for a Service or component thereof, all performance levels and measurements for such Service or component that are industry best practices,

provided that in the event of a conflict between any service levels, the highest service level standard will apply. Contractor will notify Recycle BC in writing immediately if Contractor knows that Contractor has failed, or believes Contractor will fail, to achieve a Service Level.

4.4.2. Contractor recognizes that Contractor's failure to meet a Service Level (each such failure a "**Service Level Failure**") will have a material adverse impact on the business and operations of Recycle BC and that damages resulting from a Service Level Failure may not be capable of precise determination. As such (and without limiting Recycle BC's rights or remedies), Recycle BC will be entitled to any express remedies for Service Level Failures that may be set out in Schedule 4.4 or the applicable Statement of Work. Contractor agrees that it is obligated to meet all Service Levels, even if no express remedy for a failure to meet such Service Level is provided in Schedule 4.4 or in a Statement of Work.

- 4.4.3. In the event of a Service Level Failure in respect of a Service Level expressly set out in a Statement of Work, Contractor will credit to Recycle BC the applicable Service Level Failure Credit set out in such Statement of Work. Contractor agrees that Service Level Failure Credits compensate Recycle BC in part for the reduced value of the Services actually provided by Contractor (and not as a penalty or exclusive liquidated damages). Contractor agrees that the Service Level Failure Credits are only partial compensation for the damage that may be suffered by Recycle BC as a result of Contractor's failure to meet a Service Level and that payment of any Service Level Failure Credit is without prejudice to any entitlement Recycle BC may have to damages or other remedies under this Agreement, at law or in equity. Service Level Failure Credits will be due regard-less of the manner in which the Service Level Failure is identified (including where reported by Contractor or identified by Recycle BC).
- 4.4.4. Upon Recycle BC's request, and in any event at least once per year, Recycle BC will meet with Contractor (which meeting may be in person or by phone as determined by Recycle BC) to review and discuss Contractor's performance level of the Services and Service Levels.
- 4.5. Contingency Planning. Without limiting Contractor's liability for performance of its obligations under this Agreement, Contractor will implement and maintain throughout the Term such contingency measures as may be appropriate, in Recycle BC's sole discretion (acting reasonably), including a comprehensive business continuity plan (the "**Business Continuity Plan**"), to continue the performance of its obligations under this Agreement under various scenarios including equipment failure, fuel shortage, strike, road closures (including due to weather, construction or otherwise), fire, pandemic, quarantine, and natural disasters. Recycle BC will have the right, upon demand from time to time, to review the Business Continuity Plan. Contractor will update its Business Continuity Plan at least once each year and in the event of any material change in operations or circumstance. Contractor will invoke its Business Continuity Plan where necessary due to any incident or event, including an event of Force Majeure, that has the potential to have a material impact on Contractor's ability to provide any material part of the Services for any material period of time, or upon the request of Recycle BC. Without limiting Contractors' obligations under this Agreement, whenever an incident or event that invokes the Business Continuity Plan also impacts other services provided by Contractor, and as a result Contractor is allocating resources or implementing temporary service changes or workarounds, Contractor will treat Recycle BC and the Services no less favourably than: (i) where Contractor is a local government, any other non-essential services it provides, or (ii) where Contractor is not a local government, any of its other customers, in each case in the allocation of such resources or in the implementation of such temporary service changes or workarounds.
- 4.6. Labour Disruption.
- 4.6.1. Contractor will provide Recycle BC with at least thirty (30) days prior written notice of the expirations of any labour agreement and, as soon as reasonably possible after providing such notice, Contractor will provide an assessment of the likelihood of a Labour Disruption (as defined below) in connection with the expiry of such labour agreement.
- 4.6.2. In the event that a labour disruption of any kind causes a reduction in Service Levels (a "**Labour Disruption**"), Contractor will inform Recycle BC within four (4) hours by phone and e-mail of the nature and scope of the disruption, as well as Contractor's immediate plans to invoke any or all of its Business Continuity Plan.
- 4.6.3. Without limiting Contractor's obligations under this Agreement, where a Labour Disruption also impacts other services provided by Contractor, and as a result Contractor is allocating resources or implementing temporary service changes or workarounds, Contractor will treat Recycle BC no less favourably than any of its other customers, in the allocation of such resources or in the implementation of such temporary service changes or workarounds (for example, if Contractor provides collection Services hereunder and other collection services, and Contractor proposed to

provide temporary drop-off sites in respect of its other collection services, then Contractor will also propose to provide such sites in respect of the Services hereunder).

- 4.6.4. Recycle BC will have the right to make a proportionate reduction to any Fees to reflect the value of any Services not received by Recycle BC due to a Labour Disruption.
- 4.6.5. In the event that a Labour Disruption lasts more than three (3) collection cycles (i.e. bi-weekly), and for so long as the Labour Disruption continues, Recycle BC will have the right to suspend payment of Fees (defined below) and terminate this Agreement or any Statements of Work, for cause, immediately upon delivery of written notice of termination by Recycle BC to Contractor.

SECTION 5. PAYMENT

- 5.1. Fees. In consideration of the complete and proper fulfillment of Contractor's obligations in accordance with the terms and conditions of this Agreement, Recycle BC will pay Contractor the amounts set forth in any Statement of Work (the "**Fees**"). Except as expressly set out in a Statement of Work, there will be no other amounts payable by Recycle BC to Contractor in respect of the Services or this Agreement, including any amounts for expenses or costs of travel, personnel, fuel, equipment or facilities relating to the Services or this Agreement.
- 5.2. Set-Off. Recycle BC may set-off and deduct from any amounts payable to Contractor: (a) any amounts owing by Contractor to Recycle BC pursuant to this Agreement or any other agreement between Contractor and Recycle BC that deals with the Services, including any Service Level Failure Credits; and (b) any costs incurred by Recycle BC in collecting any amounts owing by Contractor to Recycle BC pursuant to this Agreement or any other agreement between the parties that deals with the Services. The failure by Recycle BC to set-off or deduct any amount from an invoiced payment will not constitute a waiver of Recycle BC's right to set-off, deduct or collect such amount.
- 5.3. Invoicing.
 - 5.3.1. Unless otherwise set out in a Statement of Work, Contractor will submit claims using the Recycle BC claims reporting portal, or through such other method as Recycle BC may designate. Recycle BC will review submitted claims and will issue a purchase order to Contractor for valid approved claims.
 - 5.3.2. After receipt of a purchase order from Recycle BC, Contractor will invoice Recycle BC for the validated claim, with reference to the issued purchase order; provided that Recycle BC may, in its discretion, choose to issue payment to the Contractor based on the approved purchase order without the need for Contractor to submit an invoice. Where invoices are required by Recycle BC, Contractor will invoice Recycle BC using the contact information provided by Recycle BC for such purpose (as may be updated by Recycle BC from time to time).
 - 5.3.3. Where applicable as may be set out in a Statement of Work, Contractor must submit all claims within thirty (30) days of the performance of the applicable Services, and all invoices (where required to be submitted by Recycle BC) within thirty (30) days of the purchase order date. In no event will Recycle BC be liable for payment of any claim submitted more than ninety (90) days after the performance of the applicable Services, or payment of any invoice submitted more than ninety (90) days after the purchase order date.
- 5.4. Taxes. Except where otherwise noted, the Fees exclude all applicable sales, goods and services, value added, use or other commodity taxes that may be lawfully imposed upon the Services; where Contractor clearly and separately itemizes such taxes on Contractor's invoice to Recycle BC, Recycle BC will pay and Contractor will remit such taxes to the appropriate taxing authority. On request, Contractor will provide reasonable assistance to Recycle BC to challenge the validity of

any tax imposed on it due to this Agreement. If it is determined that Recycle BC paid Contractor an amount for tax that was not due, Contractor will refund the amount to Recycle BC. The parties will cooperate with each other to enable each party to determine its tax liabilities accurately and to reduce such liabilities to the extent permitted by Applicable Law.

- 5.5. Withholding Taxes. Recycle BC may deduct or withhold from any payment(s) made to Contractor any amount that Recycle BC is required to deduct or withhold in accordance with Applicable Law, including administrative practice (“**Withheld Taxes**”) and will remit such Withheld Taxes to the appropriate taxing authority in a timely manner. All such Withheld Taxes will be treated as having been paid to Contractor by Recycle BC.
- 5.6. Payment. Subject to the terms and conditions of this Agreement and any Statement of Work, Recycle BC will pay Contractor, via electronic funds transfer, the undisputed Fees for the Services within thirty (30) days of the purchase order date. Contractor will provide Recycle BC with complete and accurate billing and contact information, including all information required by Recycle BC to effect electronic funds transfers and a billing email address to which Recycle BC may send submission reports and purchase orders. Contractor will promptly provide Recycle BC with any updates to such billing and contact information.
- 5.7. No Volume Commitment. Notwithstanding anything to the contrary in the Agreement, Contractor acknowledges that Recycle BC makes no representation or warranty as to the nature, timing, quality, quantity or volume of Services required from Contractor under this Agreement or the compensation that may be earned by Contractor, including as to any amounts of materials to be collected or managed through post-collection services by a Contractor.

SECTION 6. PERSONNEL

- 6.1. Suitable Personnel. Upon Recycle BC’s request, Contractor will promptly investigate any written complaint from Recycle BC regarding any unsatisfactory performance by any of Contractor’s personnel (including employees of a subcontractor or agent) and take immediate corrective action. If the offending conduct is repeated, and Contractor is not restricted by a collective agreement from doing so, Recycle BC may require that such person be removed from all performance of additional work for Recycle BC. Removal of such person will be addressed by Contractor immediately.
- 6.2. Key Personnel. During the term of each Statement of Work, Contractor will not remove any of the persons identified as “**Key Personnel**” in such Statement of Work (or their replacements) except (a) for cause or (b) if such person is replaced at the time of removal by personnel approved in advance by Recycle BC acting reasonably, it being understood that any such replacement shall have applicable ability, experience and expertise equal to or greater than the person being replaced. If any Key Personnel (or their replacement) ceases to serve in the applicable role for any reason whatsoever, Contractor shall (i) notify Recycle BC in writing within five (5) Business Days and (ii) use commercially reasonable efforts to replace such person with personnel approved in advance by Recycle BC acting reasonably, and shall provide Recycle BC with the updated contact information as soon as it is available, it being understood that any such replacement shall have applicable ability, experience and expertise equal to or greater than the person being replaced.
- 6.3. Subcontracting. Contractor will not delegate or subcontract all or any part of Contractor’s obligations under this Agreement to anyone without the prior written consent of Recycle BC (not to be unreasonably withheld), including that Recycle BC’s prior written consent is required by Contractor to continue to delegate or subcontract to a person following a change in control (including a sale of all or substantially all assets) of such person. The delegation or subcontracting of all or any part of Contractor’s obligations under this Agreement will not relieve Contractor from any obligation or liability hereunder. Any breach of this Agreement by any delegate or subcontractor will be deemed to be a breach of this Agreement by Contractor.

SECTION 7. REPORTING AND AUDIT

- 7.1. Record Keeping. During the Term and thereafter until the later of three (3) years (or such longer period as may be required by Applicable Law) or the date all Disputes or other matters relating to this Agreement are resolved, Contractor will keep and maintain complete and accurate data, records, and documents in accordance with generally accepted accounting principles consistently applied to support and document all claims and amounts becoming payable to Contractor by Recycle BC hereunder, and all data, records, and documents relating to the performance of the Services, and compliance with Contractor's obligations under this Agreement.
- 7.2. Reporting. In addition to any other reporting obligations under this Agreement or a Statement of Work, Contractor will provide the following reporting to Recycle BC:
- (a) at least quarterly (or such other period as may be set out in a Statement of Work), Contractor will report, through Recycle BC's claims reporting portal, or through such other method as Recycle BC may designate, the reporting information set out in the applicable Statement of Work for Services performed. Such reporting may include applicable sites, amount, type, or weight of materials and service dates;
 - (b) upon such frequency as Recycle BC may request (but not more frequently than monthly), reports pertaining to the performance of the Services and Contractor's other obligations under this Agreement reasonably sufficient to permit Recycle BC to monitor and manage Contractor's performance; and
 - (c) such additional reports as Recycle BC may reasonably identify from time to time to be generated and delivered by Contractor on an ad-hoc or periodic basis.
- 7.3. Audit.
- 7.3.1. Without limiting any other audit right, during the Term and for the period Contractor is required to comply with Section 7.1, Recycle BC (or its audit representative) will have the right upon reasonable prior written notice to audit and inspect: (a) any site, facility, vehicle, or equipment relating to the performance of the Services; and (b) all data, records, documentation and other information of Contractor relating to this Agreement or the Services, in order to verify Contractor's performance and compliance with its obligations under this Agreement, including that Recycle BC (or its audit representative) may conduct a financial audit to verify the amounts paid or payable by Recycle BC hereunder. If any audit reveals that Recycle BC has been overbilled, Contractor will reimburse the overcharged amount to Recycle BC. If the overbilled amount exceeds five percent of the total amounts charged during the time period audited, Contractor will bear all of Recycle BC's costs in relation to such audit.
- 7.3.2. Without limiting any other audit right, during the Term and for the period Contractor is required to comply with Section 7.1, Contractor will make the data, records, and documents retained pursuant to Section 7.1 available for inspection or audit by Recycle BC (or its audit representative) upon Recycle BC's request.
- 7.3.3. Without limiting any other audit right, during the Term, Recycle BC (or its audit representative) may conduct composition studies, without notice, of any materials collected, transported, processed, or otherwise handled under this Agreement, at any stage of the Services and regardless of the location of such materials.
- 7.3.4. Contractor will co-operate with and provide to Recycle BC (or its audit representative) such reasonable assistance as they require in order to exercise the rights set out in this Section 7.3. Contractor will ensure that it has agreements in place with all subcontractors to enable Recycle BC

(or its audit representative) to directly exercise the audit rights under this Section 7.3 in respect of such subcontractor.

SECTION 8. REPRESENTATIONS AND WARRANTIES

- 8.1. Contractor Representations and Warranties. Contractor represents and warrants to and covenants with Recycle BC that:
- (a) it is duly incorporated, validly existing, and in good standing under the laws of its jurisdiction of incorporation, and is duly qualified to do business in all jurisdictions in which qualification is necessary in order to transact its business and perform its obligations set out in this Agreement;
 - (b) it has full power, authority, and right to execute and deliver this Agreement, to make the representations, warranties, and covenants set out herein, and to perform its obligations under this Agreement in accordance with its terms;
 - (c) this Agreement has been validly executed by an authorized representative of Contractor, and constitutes a valid and legally binding and enforceable obligation of Contractor;
 - (d) it has and will, at its own expense, procure all permits, certificates and licenses required by Applicable Law for the performance of the Services;
 - (e) the representations, warranties, covenants, claims, inducements, and agreements made by Contractor in Contractor's written response to any procurement process related to the Services or this Agreement are true and correct as of the Effective Date, including those in any proposal submitted in response to a request for proposals and any statements or claims in any completed and submitted questionnaire in response to any offer of a collection fee; and
 - (f) it has not given and will not give commissions, payments, kickbacks, gifts, lavish or extensive entertainment, or other inducements of more than minimal value to any employee or agent of Recycle BC in connection with this Agreement and, to the best of its knowledge, no officer, director, employee, agent or representative of Contractor has given any such commissions, payments, kickbacks, gifts, entertainment or other inducements to any employee or agent of Recycle BC.

SECTION 9. CONFIDENTIALITY

- 9.1. Confidentiality Covenant. The Receiving Party will: (i) take all measures reasonably required to maintain the confidentiality and security of the Confidential Information of the Disclosing Party; (ii) not use or reproduce Confidential Information for any purpose, other than as reasonably required to exercise or perform its rights or obligations under this Agreement; (iii) not disclose any Confidential Information other than to employees, agents or subcontractors of the Receiving Party ("**Representatives**") to the extent, and only to the extent, they have a need to know the Confidential Information in order for Receiving Party to exercise its rights or perform its obligations under this Agreement and who are bound by a legal obligation to protect the received Confidential Information from unauthorized use or disclosure; and (iv) be responsible for any breach of this Agreement by any of its Representatives.
- 9.2. Legal Requirement. Notwithstanding Section 9.1, the Receiving Party may disclose Confidential Information of the Disclosing Party to the extent required by a court of competent jurisdiction or other governmental authority or otherwise as required by Applicable Law, provided that, unless prohibited by Applicable Law, the Receiving Party gives the Disclosing Party an opportunity to oppose the disclosure or to seek a protective order protecting such Confidential Information prior to any such disclosure.

- 9.3. Return of Confidential Information. Upon expiry or termination of this Agreement, or upon request by the Disclosing Party, the Receiving Party will return to the Disclosing Party, or irrecoverably destroy, any Confidential Information of the Disclosing Party.
- 9.4. Privacy Laws. Contractor will not access, collect, use, disclose, dispose of or otherwise handle information of or about individuals that is subject to Applicable Laws relating to privacy (“**Privacy Laws**”) in the performance of its obligations under this Agreement, except: (a) to the extent necessary to perform the Service; (b) in accordance with all Privacy Laws; and (c) in a manner that enables Recycle BC to comply with all Privacy Laws, including that Contractor will obtain appropriate consents from the applicable individuals to allow Contractor and Recycle BC to exercise their rights and to perform their obligations under this Agreement as they relate to such information. Unless prohibited by Applicable Law, Contractor will immediately notify Recycle BC of any demand, or request by a third party (including any government or a regulatory authority) for the disclosure of any information of Recycle BC that is subject to Privacy Laws, and, to the maximum extent permitted by law, will oppose, seek judicial relief of and appeal any such demand or request. Contractor will immediately notify Recycle BC if Contractor becomes aware that Contractor has failed to comply with Privacy Laws in connection with the performance of this Agreement.

SECTION 10. PROPRIETARY RIGHTS

- 10.1. Ownership. Except as otherwise specifically provided in any Statement of Work, or as otherwise agreed to by the parties in writing, the Work Product, together with any Intellectual Property Rights therein, will be owned by Recycle BC; accordingly, Contractor will assign and hereby assigns to Recycle BC all rights, title and interest it may have from time to time in the Work Products effective upon creation. During the Term, Contractor will have a non-exclusive, non-transferable license to use the Work Products for the sole purpose of providing and completing the Services. Contractor will obtain from all individuals involved in the development of the Work Product an express and irrevocable waiver in favour of Recycle BC, its successors and assigns of any and all moral rights arising under the *Copyright Act (Canada)* as amended (or any successor legislation of similar force and effect) or under similar legislation in other jurisdictions or at common law that Contractor or such individuals, as authors, have with respect to the Work Products. Notwithstanding the foregoing, Recycle BC shall not acquire any Intellectual Property Rights with respect to Contractor’s tools, equipment, methodologies, questionnaires, responses, and proprietary research and data, as well as any and all computer software, code or codes and technology, used by Contractor in connection with the provision of the Services under this Agreement that is created or acquired prior to the Effective Date or otherwise created or acquired independent of the Services (“**Contractor Background IP**”). Contractor hereby grants to Recycle BC a perpetual, worldwide, fully-paid, and sub-licensable license to the Contractor Background IP as necessary for Recycle BC to exercise its rights in and to the Work Product and otherwise use the Services and obtain the rights granted to Recycle BC under this Agreement. All Work Product in the possession of Contractor will be promptly delivered to Recycle BC following termination of this Agreement or at such other time as Recycle BC may reasonably request.

SECTION 11. INDEMNITY

- 11.1. Indemnity. Contractor will indemnify and save harmless Recycle BC, its Affiliates, and their respective directors, officers, contractors, employees, volunteers, and agents from and against any and all manner of actions or causes of actions, damages, costs, losses or expenses of whatever kind (including related legal fees on a solicitor and client basis) which may be sustained or incurred by reason of or directly or indirectly arising out of any act or omission of Contractor or any person for whom the Contractor is, at law or under this Agreement, responsible, in relation to the Services or this Agreement, including those arising out of any (i) breach of this Agreement; (ii) damages to persons or property, personal injury or death; (iii) breach of Applicable Law; (iv) spill, leak, contamination, or other environmental damage; or (v) infringement, violation or misappropriation of any third party’s right, including any Intellectual Property Right.

- 11.2. Available Remedies. If Contractor sustains damage in the course of performing the Services that is caused by another contractor of Recycle BC with whom Contractor is obligated under this Agreement to interact with directly (an “**Other Service Provider**”), Recycle BC will, upon Contractor’s reasonable and good faith request, use commercially reasonable efforts to exercise, for Contractor’s benefit, such contractual remedies of indemnification or receipt of Service Level Failure Credits as Recycle BC may have with the Other Service Provider that apply to the damage sustained by Contractor and the event which caused the damage; provided that Contractor: (i) has first used reasonable efforts to address the damage directly with the Other Service Provider, including exercising direct remedies Contractor may have under Applicable Law, contract or otherwise; and (ii) will have a duty to mitigate its damages.

SECTION 12. INSURANCE AND PERFORMANCE BOND

- 12.1. Insurance. During the Term, and for any additional period following the end of the Term set out in Schedule 12.1, Contractor will have and maintain in force in Canada, and will cause it subcontractors to have and maintain in force in Canada, at a minimum, the insurance coverages set out in Schedule 12.1, and Contractor will (and will cause its subcontractors to) otherwise comply with the provisions of Schedule 12.1. Failure to secure or maintain such insurance coverage, or the failure to comply fully with any of Schedule 12.1 will be deemed to be a material breach of this Agreement. None of the requirements contained herein as to types, limits and approval of insurance coverage to be maintained by Contractor are intended to and will not in any manner limit the liabilities and obligations assumed by Contractor under this Agreement.
- 12.2. Performance Bond. Contractor will comply with any performance bond requirements that may be set out in a Statement of Work.

SECTION 13. TERMINATION

- 13.1. Termination for Convenience. Either party may, at any time and without cause, terminate this Agreement or any Statements of Work for convenience upon giving the other party one hundred eighty (180) days’ prior written notice (or such shorter amount of notice as mutually agreed in writing by the parties).
- 13.2. Termination by Recycle BC for Cause. Recycle BC may elect to terminate this Agreement or any Statements of Work by providing written notice of such termination, effective immediately or at such other time set out in the notice of termination, to Contractor in the event that:
- (a) Contractor becomes subject to proceedings in bankruptcy or insolvency, voluntarily or involuntarily, if a receiver is appointed with or without Contractor’s consent, if Contractor assigns its property to its creditors or performs any other act of bankruptcy or if the other party becomes insolvent and cannot pay its debts when they are due;
 - (b) Contractor commits a material breach of this Agreement and does not cure such breach within thirty (30) days of receipt of notice thereof from Recycle BC;
 - (c) Contractor fails to provide all or a material portion of the Services for a consecutive period of more than seven (7) days, unless this is a result of a Labour Disruption or Force Majeure as per Section 4.6;
 - (d) Contractor’s performance creates a hazard to public health or safety or to the environment;
 - (e) Contractor is assessed five separate Service Level Failure Credits during any rolling six (6) month period; or
 - (f) any other termination right described in this Agreement or a Statement of Work is triggered.

- 13.3. Termination by Contractor for Cause. Contractor may elect to terminate this Agreement or any Statement of Work by providing written notice of such termination, effective immediately, to Recycle BC in the event that Recycle BC fails to pay undisputed Fees, as they become due, in the preceding three months and Recycle BC does not cure such non-payment within sixty (60) days of receipt of notice thereof from Contractor.
- 13.4. Change in Applicable Law. Recycle BC may elect to terminate this Agreement or any Statement of Work by providing written notice of such termination, effective immediately or at such other time set out in the notice of termination, to Contractor in the event that there is a material change in Applicable Law applicable to Recycle BC or the Services, including if there is a material change to an approved plan under the Regulation or if any new plan (whether submitted by Recycle BC or any other person) is approved thereunder.
- 13.5. Disruption of Service. The parties expressly agree that the failure or inability of Contractor to perform its obligations under this Agreement will constitute a breach hereunder, and that any costs and expenses reasonably incurred by Recycle BC for any replacement services as a result of such a failure or inability will be considered direct damages hereunder.
- 13.6. Termination Obligations and Assistance. Upon termination or expiration of this Agreement, Contractor will cooperate with Recycle BC to ensure the orderly wind down of the Services including, if requested by Recycle BC, continuing to provide such Services as are necessary to ensure an orderly transfer of the Services following termination of this Agreement on terms and conditions acceptable to each of the parties acting reasonably. Upon receipt of a notice of termination by either party under this Section 13 (Termination), Contractor will prepare its statement of account on the basis of the effective date of termination specified in the notice, and immediately return all Work Product to Recycle BC, whether completed or not.
- 13.7. Survival. The following sections will survive the expiration or termination of this Agreement, regardless of the reasons for its expiration or termination, in addition to any other provision which by law or by its nature should survive: Section 9 (Confidentiality), Section 11 (Indemnity), Section 12 (Insurance and Performance Bond), Section 14 (Dispute Resolution) and Section 15 (General Provisions) in their entirety, and Sections 7.1, 7.3, 10.1, 13.6, and 13.7. The expiry or termination of this Agreement will not affect the rights of any party to make a claim for damages arising from a breach of any provision of this Agreement which occurred prior to such expiry or termination.

SECTION 14. DISPUTE RESOLUTION

- 14.1. Disputes. Any dispute that touches upon the validity, construction, meaning, performance or effect of this Agreement or the rights or liabilities of the parties or any matter arising out of, or in connection with this Agreement (a “**Dispute**”), between Recycle BC and Contractor will be addressed as follows:
- (a) The parties will first attempt to resolve the Dispute through representatives from each of Recycle BC and Contractor who work most closely with each other on related matters, within fifteen (15) days after written notice of the Dispute was first given, or as otherwise agreed upon.
 - (b) If the Dispute is not resolved in accordance with Section 14.1(a), either party may escalate the Dispute to the senior Recycle BC and Contractor representatives, who will meet and work together in good faith to attempt to resolve the Dispute within a further fifteen (15) days, or as otherwise agreed upon.
 - (c) If the Dispute is not resolved in accordance with Section 14.1(b), then either party may escalate the Dispute to non-binding third party mediation. The mediation will take place at a time and place mutually agreed by the parties and will be led by a third-party facilitator

jointly selected by the parties (who, unless otherwise mutually agreed by the parties, will be an individual accredited to provide such services). If the Dispute remains unresolved within forty-five (45) days from the point at which a party escalated the Dispute to non-binding third party mediation, either party may escalate the Dispute by delivering a written notice to the other party referring the matter to binding arbitration.

- (d) If the Dispute is not resolved in accordance with Section 14.1(c) unless otherwise mutually agreed by the parties in writing, the Dispute will be conclusively settled by means of private and confidential binding arbitration, to the exclusion of courts of law. The arbitration will take place before a single arbitrator in Vancouver in the English language and will otherwise be undertaken under the auspices and rules of the British Columbia Arbitration & Mediation Institute. The decision of the arbitrator will be final and binding on the parties and will not be subject to appeal on any grounds whatsoever, and will be enforceable against Recycle BC and Contractor as the case may be. The parties will mutually agree on an arbitrator, where the parties are unable to mutually agree on an arbitrator, the arbitrator will be determined pursuant to the rules of the British Columbia Arbitration & Mediation Institute.
- (e) Notwithstanding anything to the contrary in this Section 14.1, either party may start litigation proceedings in a court of law at any time for an application for a temporary restraining order or other form of injunctive relief and each party hereby attorns to the non-exclusive jurisdiction of the courts of the province of British Columbia for such purpose.

SECTION 15. GENERAL PROVISIONS

- 15.1. Relationship of the Parties. It is acknowledged by the parties hereto that the Contractor is being retained by Recycle BC in the capacity of independent contractor and not as an employee of Recycle BC. The Contractor and Recycle BC acknowledge and agree that this Agreement does not create a partnership, joint venture, agency, or other special relationship between them. Except as may be specified in writing, neither party will have the power to obligate or bind the other party. Personnel supplied by Contractor will work exclusively for Contractor and will not be considered employees or agents of Recycle BC for any purpose.
- 15.2. Assignment. This Agreement may not be assigned by either party in whole or in part, without the other party's prior written consent, except that Recycle BC may assign this Agreement without Contractor's consent to a person with an approved plan under the Regulation, or who otherwise has obligations similar to those of Recycle BC or one or more Producers under any successor regulation or legislation, or to a person as part of a corporate reorganization of Recycle BC. Any attempt by a party to assign all or any part of this Agreement without prior written consent (where such consent is required) is void. Any assignment occurring by operation of law such as on a bankruptcy or amalgamation will be deemed to be an assignment and will be subject to this Section 15.2.
- 15.3. Force Majeure. Neither party to this Agreement or any Statement of Work will be liable to the other party for any failure or delay in fulfilling an obligation hereunder, if said failure or delay is attributable to an act of God, natural disaster, earthquake, fire, flood, war, riot, civil disturbance, epidemic, prolonged power failure or court or governmental order beyond such party's reasonable control ("**Force Majeure**"). The parties agree that the deadline for fulfilling the obligation in question will be extended for a period of time equal to that of the continuance of the Force Majeure. The party to which the Force Majeure applies will use all commercially reasonable efforts to minimize the effect of the Force Majeure on its performance under this Agreement or any Statement of Work. If Contractor's failure or delay in fulfilling its obligations under this Agreement due to a Force Majeure Event exceeds [30] days, then Recycle BC may immediately terminate this Agreement in whole or in part by giving written notice of termination.
- 15.4. Governing Law. This Agreement and any Statement of Work will be governed by and construed in accordance with the laws of the Province of British Columbia and the laws of Canada applicable

therein without regard to conflicts of law that would apply a different body of law. Subject to Section 14 (Dispute Resolution), the parties hereby irrevocably attorn to the non-exclusive jurisdiction of the courts of the Province of British Columbia for any legal proceedings arising out of this Agreement, any Statement of Work or the performance of the obligations hereunder.

- 15.5. Notices. All notices, requests, demands or other communications given by one party to the other party, will be in writing, in the English language, and will be deemed duly given (i) when delivered by hand; (ii) by e-mail (with receipt confirmed), (iii), on the designated day of delivery after being given to an express overnight courier with a reliable system for tracking delivery, or (iv) six (6) days after the day of mailing, when mailed by Canada Post, registered or certified mail, return receipt requested and postage prepaid, and addressed as follows:

To Contractor:

Regional District of Central Kootenay
202 Lakeside Dr
Nelson, BC V1L 6B9

E-mail: Awilson@rdck.bc.ca

Attention: Amy Wilson

To Recycle BC:

MMBC Recycling Inc.
405-221 West Esplanade
North Vancouver, BC V7M 3J3

E-mail: agreements@recyclebc.ca

Attention: Director, Collection Recycle BC

or to such other address as may be designated by notice given by either party to the other.

- 15.6. Further Assurances. The parties will do, execute or deliver all such further acts, documents and things as the other party may reasonably require from time to time for the purpose of giving effect to this Agreement and will use reasonable efforts and take all such steps as may be reasonably within its power to implement to their full extent the provisions of this Agreement.
- 15.7. No Publicity. Contractor will not use the name or trademarks of Recycle BC nor make any statement or issue any advertisement, publicity release, press releases to the public or the media with respect to this Agreement or Recycle BC, unless it has obtained Recycle BC's prior written approval, including that Contractor will not disclose or otherwise publicly report on any Service performance metrics (including volumes of material collected or processed).
- 15.8. Timing. Time will be of the essence of this Agreement and of every part hereof and no extension or variation of this Agreement will operate as a waiver of this provision.
- 15.9. Severability. If any provision, or portion thereof, of this Agreement or any Statement of Work is determined by a court of competent jurisdiction to be invalid, illegal or unenforceable, such determination will not impair or affect the validity, legality or enforceability of the remaining provisions of this Agreement or any Statement of Work, and each provision, or portion thereof, is hereby declared to be separate, severable and distinct.

- 15.10. Waiver. A waiver of any provision of this Agreement or any Statement of Work will only be valid if provided in writing and will only be applicable to the specific incident and occurrence so waived. No omission, delay or failure to exercise any right or power, or any waiver by either party of any breach or default, whether expressed or implied, or any failure to insist on strict compliance with any provision of this Agreement, will be a waiver of any other provision. Any waiver of any provision or breach of this Agreement will not be a continuing waiver unless otherwise stated.
- 15.11. Remedies Cumulative. No single or partial exercise of any right or remedy under this Agreement or any Statement of Work will preclude any other or further exercise of any other right or remedy in this Agreement or any Statement of Work or as provided at law or in equity. Rights and remedies provided in this Agreement or any Statement of Work are cumulative and not exclusive of any right or remedy provided at law or in equity.
- 15.12. Amendment. This Agreement or any Statement of Work may only be amended by written agreement duly executed by authorized representatives of the parties.
- 15.13. Entire Agreement. This Agreement, including all Schedules hereto, and any Statement of Work will constitute the entire agreement between the parties with respect to the subject matter hereof and will replace all prior promises or understandings, oral or written. There is no representation, warranty, collateral term or condition or collateral agreement affecting this Agreement, other than as expressed in writing in this Agreement. Any purchase order or other instrument of Contractor accompanying a Statement of Work, an invoice or otherwise is for Contractor's internal use only and its terms will not alter or amend the terms of this Agreement.
- 15.14. Counterparts. This Agreement and any Statement of Work may be executed in any number of counterparts, each of which will be deemed to be an original and all of which taken together will be deemed to constitute one and the same instrument. Delivery of an executed signature page to this Agreement or any Statement of Work by any party by electronic transmission will be as effective as delivery of a manually executed copy of this Agreement or the Statement of Work by such party.

(Signature page follows.)

IN WITNESS WHEREOF the parties have executed this Agreement effective as of the Effective Date.

MMBC RECYCLING INC.

Per: _____
(I have authority to bind Recycle BC)

Name: _____
(Please Print)

Title: _____

REGIONAL DISTRICT OF CENTRAL KOOTENAY

Per: _____
(I have authority to bind Contractor)

Name: _____
(Please Print)

Title: _____

Per: _____
(I have authority to bind Contractor)

Name: _____
(Please Print)

Title: _____

Note: Second signatory to be completed by Contractor only if Contractor requires two signatories (and by leaving the second signatory blank and returning the Agreement to Recycle BC, Contractor and the first signatory represent that no additional signatories are required).

SCHEDULE 4.2 RECYCLE BC POLICIES AND STANDARDS

As of the Effective Date, the following are Recycle BC Policies and Standards:

1. Recycle BC's Weight and Measurement Standards, a copy of which is set out below:

Recycle BC requires that materials collected by Contractor in connection with the Services ("**Inbound Material**") be weighed, and that accurate weights be reported to Recycle BC.

Weight is defined by Recycle BC as the following:

"Gross Weight" means the weight of the truck or container plus its contents, measured in kilograms unless otherwise noted.

"Tare Weight" means the weight of the empty truck, container or equipment without its contents, measured in kilograms unless otherwise noted.

"Net Weight" means the weight of the contents of the container or truck, calculated as Gross Weight minus Tare Weight, measured in kilograms unless otherwise noted.

The following equation must always be true.

$$\text{Net Weight} = \text{Gross Weight} - \text{Tare Weight}$$

Measurement Canada has produced a comprehensive guide on taking and recording weights, available at <http://www.ic.gc.ca/eic/site/mc-mc.nsf/eng/lm00205.html>.

Contractor Responsibilities

All loads must be documented in a manner specified by Recycle BC, as amended by Recycle BC from time to time, including a certified scale ticket. The certified scale ticket may be provided by the Designated Post-Collection Service Provider to the Contractor if the weighing is performed by the Post-Collection Service Provider. If the Contractor is performing the actual weighing, the Post-Collection Service Provider responsibilities noted below must be followed by the Contractor.

Contractors are to maintain the following Net Weight records and provide upon request to Recycle BC:

- Curbside Collection: Tonnage of Inbound Material by collection date and individual truck number
- Multi-Family Building Collection: Tonnage of Inbound Material by collection date and individual truck number
- Depot Collection: Tonnage of Inbound Material by each container type, material category, and by the date on which the Designated Post-Collection Service Provider removed the PPP from the depot

SCHEDULE 4.4
SERVICE LEVEL METHODOLOGY

1. Contractor will measure and record all data reasonably required by Recycle BC to determine Contractor's performance of the Services against the applicable Service Levels. Contractor will retain such records in accordance with Section 7.1 of the Agreement. Upon request, and upon such frequency as Recycle BC may indicate (which may not be more frequently than monthly), Contractor will deliver to Recycle BC a report, in a form and format approved by Recycle BC, setting out details of Contractor's actual performance of the Services as measured against each Service Level during the applicable reporting period.

**SCHEDULE 12.1
INSURANCE REQUIREMENTS**

1. **Insurance Coverage.** The insurance coverage required pursuant to Section 12.1 of the Agreement is as follows:
 - (a) Comprehensive General Liability coverage with limits of not less than \$5,000,000 (five million dollars) per occurrence with a deductible not exceeding \$100,000 per occurrence, or, where Contractor is a local government, Contractor may self-insure for equivalent or better coverage (in which case Contractor will respond to all claims, actions, demands, expenses and losses by whomsoever made in the same manner as if commercial Comprehensive General Liability insurance was purchased for same and as if Recycle BC were included in such policy as an additional insured) or, where Contractor is unable to obtain a deductible not exceeding \$100,000 per occurrence, Recycle BC may, in its sole discretion approve a higher deductible amount;
 - (b) Contractor will seek advice and obtain any necessary environmental impairment liability insurance or other such policy as may be recommended by their insurance broker or legal counsel to adequately protect against risks of environmental liability, with typical environmental impairment liability insurance for the Services having a limit of not less than \$1,000,000 (one million dollars) per occurrence with a deductible not greater than \$100,000 (for clarity, neither the amount nor type of environmental impairment liability insurance obtained by Contractor will in any manner limit or qualify the liabilities and obligations assumed by Contractor under this Agreement);
 - (c) Workers' Compensation Insurance or Workplace Safety & Insurance coverage with the applicable Provincial (including, in all cases, British Columbia) or Territorial Workplace Safety & Insurance Board or Employer's Liability Insurance or both with limits as required by Applicable Law covering all Contractor personnel; and
 - (d) Such other insurance coverage as may be set out in a Statement of Work.
2. **Requirements for Insurer.** All insurers must be reputable and financially creditworthy insurers with an A.M. Best financial strength rating of "A-" or higher (or equivalent rating by a similar agency, in Recycle BC's sole discretion).
3. **Recycle BC as Additional Insured.** Contractor will add Recycle BC as an additional insured on its Comprehensive General Liability policy with the following language: "MMBC Recycling Inc. and its affiliated entities, officers, partners, directors, employees, representatives and agents are included as additional insureds for Comprehensive General Liability. Such coverage is primary and non-contributing."
4. **Evidence of Insurance.** Contractor will cause its insurers to issue to Recycle BC certificates of insurance on the Effective Date, and once each calendar year thereafter, evidencing that the coverages and policy endorsements required under this Agreement are maintained in force. Where Contractor is a local government and opts to self-insure pursuant to Section 1(a), Contractor will provide a written attestation stating and evidencing such self-insurance (including evidence of authority and financial ability to self-insure), in a form acceptable to Recycle BC, on the Effective Date and once each calendar year thereafter.
5. **Changes to Insurance Coverage.** Contractor will not reduce any insurance coverage below the requirements set out in this Schedule without Recycle BC's prior written consent. Contractor will provide not less than thirty (30) days' notice to Recycle BC prior to any material change to its insurance coverage or to its insurer.

6. **Coverage Details.** The insurance coverages under which Recycle BC is named as additional insured will be primary, and all coverage will be non-contributing with respect to any other insurance or self-insurance that may be maintained by Recycle BC. All coverage required by this Agreement will, where allowed by Applicable Law, include a waiver of subrogation and a waiver of any insured-versus-insured exclusion regarding Recycle BC.

7. **Additional Period of Coverage.** Contractor will continue to have and maintain in force the insurance coverages set out in this Schedule, and Contractor will continue to comply with Section 12.1 of the main body of the Agreement and Schedule 12.1, beyond the end of the Term for an additional 2 years thereafter.

**SCHEDULE 2.1(c)
STATEMENT OF WORK FOR DEPOT COLLECTION SERVICES**

This Statement of Work is incorporated into and forms part of the Master Services Agreement made between Regional District of Central Kootenay (“**Contractor**”) and MMBC Recycling Inc. carrying on business as Recycle BC (“**Recycle BC**”) made as of January 1, 2025 (the “**Agreement**”). The effective date of this Statement of Work (the “**SOW Effective Date**”) is January 1, 2025.

SECTION 1. Interpretation

1.1 Definitions. In this Statement of Work (including the attachments hereto), the following terms will have the following meanings. Capitalized terms used but not defined in this Statement of Work will have the respective meanings ascribed to them in the Agreement.

“**Agreement**” has the meaning set out on the first page of this Statement of Work.

“**Approved Depots**” means, at any time, the Depots listed in Attachment 2.1.1 (as such attachment may be amended from time to time), and “**Approved Depot**” means any one of them.

“**Claim Information**” has the meaning set out in Section 3.4.2(b).

“**Collection Container**” means any container used for storage of In-Scope PPP at a Depot.

“**Contamination**” means any material collected that is Not Accepted Material.

“**Contractor**” has the meaning set out on the first page of this Statement of Work.

“**Cross Contamination**” means In-Scope PPP that has been collected in the incorrect In-Scope PPP category.

“**Customer**” means all British Columbia residential users of a Depot.

“**Determined Household Amount**” has the meaning set out in Section 2.1.6(a).

“**Depot**” means a fixed location collection site operated by Contractor to which In-Scope PPP can be delivered by Customers, whether designated as a Principal Depot or Satellite Depot and including, in each case, all surrounding portions of such site from the public entrance way onward, including any parking lots, buildings and storage facilities.

“**Depot Collection Services**” has the meaning set out in Section 2.1.

“**Determined ICI Amount**” has the meaning set out in Section 2.1.6(b).

“**Hazardous Waste**” means any waste that may pose a risk to health, safety or the environment if not properly managed, including materials that are corrosive, reactive, toxic, leachable or ignitable (e.g. used oil, paint, pesticides, batteries, chemicals).

“**Household In-Scope PPP**” means In-Scope PPP from a residential household.

“**ICI Management Option**” has the meaning set out in Section 2.1.6(b).

“**ICI PPP**” means In-Scope PPP from an ICI location.

“**In-Scope PPP**” means the PPP set out in Attachment 2.1.2 and such other materials identified as In-Scope PPP by Recycle BC in writing from time to time.

“Industrial, Commercial and Institutional” or **“ICI”** means any operation or facility other than a residential premises as defined in the Regulation, including industrial operations of any size; commercial operations of any size including small businesses with one or more employees, retail stores, offices, strip malls and vacation facilities, such as hotels, motels, cottages, cabins and rental, co-operative, fractional ownership, time-share or condominium accommodation associated with sports and leisure facilities (e.g., ski resorts); and, institutional operations of any size including schools, churches, community buildings, local government buildings, arenas, libraries, fire halls, police stations, social or community service organizations and residences at which medical care is provided, such as nursing homes, long-term care facilities and hospices.

“Not Accepted Materials” means, collectively, any material that is not PPP.

“Principal Depot” means an Approved Depot from which In-Scope PPP is picked up by the Designated Post-Collection Service Provider.

“Reuse” means conventional reuse where the item is used again whole and intact for the same function (e.g. an egg carton reused to carry new eggs), and next-life reuse where the item is used for a different function (e.g. an olive oil bottle reused to hold flowers).

“Satellite Depot” means an Approved Depot from which Contractor transports In-Scope PPP to a designated Principal Depot for pick-up by the Designated Post-Collection Service Provider.

“Scavenge” means unauthorized rerouting of collected In-Scope PPP to anyone other than the Designated Post-Collection Service Provider. Scavenging does not include the diversion of In-Scope PPP for Reuse.

“Service Commencement Date” means January 1, 2025.

“SOW Effective Date” has the meaning set out on the first page of this Statement of Work.

“SOW Services” has the meaning set out in Section 2.

“Temporary Collection Site” means a temporary or mobile collection site to which In-Scope PPP can be delivered by Customers.

1.2 Attachments. As of the SOW Effective Date, the following attachments form part of this Agreement (note that attachment numbering is not sequential and is based on a related section reference):

Attachment	Description
Attachment 2.1.1	– Approved Depots
Attachment 2.1.2	– In-Scope PPP
Attachment 3.5	– Service Level Failures
Attachment 5	– Fees

SECTION 2. Services

Contractor will provide, on the terms and conditions set out in the Agreement as supplemented and modified by the terms and conditions of this Statement of Work, the following Services (the **“SOW Services”**):

2.1 Depot Collection Services. Beginning on the Service Commencement Date, Contractor will collect In-Scope PPP from Customers at each of the Approved Depots as further described in this Section 2.1 (**“Depot Collection Services”**) and in accordance with the terms of the Agreement and this SOW.

2.1.1 Depots.

- (a) Contractor may not collect In-Scope PPP at any collection site other than an Approved Depot or Temporary Collection Site.
- (b) Contractor may not add any Depot to the list of Approved Depots without the prior written approval of Recycle BC. Effective as of the date such Depot is added to the list of Approved Depots, Attachment 5 will be amended if and to the extent necessary.
- (c) Contractor may not remove any Depot from the list of Approved Depots without the prior written approval of Recycle BC, such written approval to specify a date mutually acceptable to the parties, which will be at minimum ninety (90) days, on which such Depot will be removed from the list of Approved Depots. Effective as of the date such Depot is removed from the list of Approved Depots, Attachment 5 will be amended if and to the extent necessary.
- (d) Contractor may not operate or collect In-Scope PPP at a Temporary Collection Site except (i) with the prior written approval of Recycle BC and (ii) in accordance with the terms and conditions set forth in such written approval.
- (e) In the event of a Depot ownership change, Contractor will provide written notice to their Recycle BC collection specialist with a minimum ninety (90) day notice prior to new ownership commencement.

2.1.2 PPP Materials.

- (a) Contractor will collect all In-Scope PPP that Customers bring to an Approved Depot.
- (b) Materials collected under this Statement of Work may not contain more than 5% by weight of Not Accepted Materials. Materials exceeding 5% by weight of Not Accepted Materials may be subject to rejection by the Designated Post-Collection Service Provider and may result in Service Level Failure Credits.
- (c) Contractor will ensure that individual material categories not contain more than the specified percent of Cross Contamination of In-Scope PPP by weight listed below. Loads of segregated material categories exceeding the weight percentage listed individually (or in the aggregate) may be subject to rejection by the Designated Post-Collection Service Provider and may result in Service Level Failure Credits.
 - (i) Paper and Cardboard do not contain more than 1% by weight of other In Scope PPP materials categories;
 - (ii) Mixed Containers do not contain more than 3% by weight of other In Scope PPP material categories;
 - (iii) Foam Packaging does not contain more than 5% by weight of other In Scope PPP material categories;
 - (iv) Flexible Plastics does not contain more than 5% by weight of other In Scope PPP material categories; and
 - (v) Glass Bottles and Jars does not contain more than 1.5% by weight of other In-Scope PPP material categories.

- (d) Materials collected under this Statement of Work may not contain Hazardous Waste.
- (e) Contractor will implement and maintain reasonable procedures to ensure that materials deposited into Collection Containers at each Depot comply with the requirements set forth in this Section 2.1.2, including procedures to monitor the content of collected material and procedures to notify and reject material from Customers who do not comply with such requirements. Such procedures are subject to review by Recycle BC at any time and from time to time. If Recycle BC determines that such procedures are inadequate, Contractor will adopt such procedures as Recycle BC may reasonably require in order to ensure compliance with this Section 2.1.2.

2.1.3 Collection.

- (a) Contractor will not place unreasonable limits on the quantity of In-Scope PPP delivered by Customers to a Principal Depot if the In-Scope PPP is from a household. Limits may be placed on the quantity or types of In-Scope PPP delivered by Customers to Satellite Depots, at Contractor's sole discretion. For clarity, In-Scope PPP may not be delivered by businesses on behalf of Customers unless agreed to in writing beforehand with Recycle BC.
- (b) Each Depot must be fully staffed when open to Customers. A Depot is considered to be "fully staffed" when there are a sufficient number of staff members that staff are able to (i) regularly check the Collection Containers into which Customers place In-Scope PPP throughout the period of time the Depot is open to Customers, (ii) instruct and direct Customers to place In-Scope PPP in the appropriate Collection Containers or locations, (iii) promptly and regularly remove items that are not In-Scope PPP, (iv) promptly and regularly remove items which Customers did not properly place in the appropriate Collection Containers or locations, (v) communicate with Customers about Contamination problems or improperly sorted In-Scope PPP and (vi) otherwise comply with the requirements of this Agreement (including Sections 2.1.2(e) and 2.2).
- (c) Each Depot must be securely fenced and/or locked when closed to Customers. A Depot is considered to be "securely fenced and/or locked" when (i) Customers are not able to deliver In-Scope PPP to the Depot and (ii) access to the Depot is restricted and the In-Scope PPP stored at the Depot and awaiting pick-up by the Designated Post-Collection Service Provider is safe from tampering and vandalism.

2.1.4 Collection Containers.

- (a) The type of Collection Container used for the collection of PPP categories at individual Depots will be determined by the Designated Post-Collection Service Provider working in good faith with the Contractor. If the Designated Post-Collection Service Provider and Contractor cannot agree on the appropriate Collection Container for a given Depot, Recycle BC will facilitate resolution of the issue.
- (b) Collection Containers will be provided by and remain the property of the Designated Post-Collection Service Provider, provided that, to the extent any Collection Containers are owned and provided by the Contractor, such Collection Containers shall remain the property of the Contractor. Upon termination or expiration of this Statement of Work or the Agreement, any Collection Containers provided by the Designated Post-Collection Service Provider in accordance with

this Section 2.1.4(a), will be returned to the Designated Post-Collection Service Provider.

- (c) Any Collection Containers that are not intended to be removed from the Depot for transport of In-Scope PPP by the Designated Post-Collection Service Provider will be provided by Contractor. Upon termination or expiration of this Statement of Work or the Agreement, any Collection Containers provided by Contractor to provide the Depot Collection Services will remain the property of Contractor.
- (d) Except for the collection of Flexible Plastics, Contractor may not allow Customers to deposit In-Scope PPP into Collection Containers in single-use bags.

2.1.5 Designated Post-Collection Service Provider.

- (a) The Designated Post-Collection Service Provider will only pick-up In-Scope PPP collected by Contractor pursuant to this Statement of Work (including In-Scope PPP collected at a Satellite Depot or Temporary Collection Site) at a Principal Depot. In the case of In-Scope PPP collected at a Satellite Depot, Contractor is solely responsible, at its own cost and expense, for (i) transporting such In-Scope PPP to the designated Principal Depot, (ii) consolidating In-Scope PPP collected at the Satellite Depot with In-Scope PPP collected at the designated Principal Depot (iii) preparing the In-Scope PPP for pick-up by the Designated Post-Collection Service Provider.
- (b) Contractor will make best effort to ensure only full Collection Containers of In-Scope PPP are prepared for the Designated Post-Collection Service Provider to pick up. Recycle BC reserves the right to direct the Designated Post-Collection Service Provider to reject the pickup of material where best efforts to set out full Collection Containers has not been made.
- (c) Contractor will maintain all In-Scope PPP collected by Contractor pursuant to this Statement of Work (including In-Scope PPP collected at a Satellite Depot or Temporary Collection Site) for pick-up by the Designated Post-Collection Service Provider in a manner that is segregated, at a minimum, as set out in Attachment 2.1.2, and which is baled (or not baled) in accordance with the selections in the table(s) in Section 1(a) of Attachment 5.
- (d) Contractor will (i) ensure all In-Scope PPP collected by Contractor pursuant to this Statement of Work (including In-Scope PPP collected at a Satellite Depot or Temporary Collection Site) Principal Depot is made available for pick-up by the Designated Post-Collection Service Provider at a Principal Depot and (ii) may not charge any amounts to the Designated Post-Collection Service Provider for collecting such In-Scope PPP from a Principal Depot. Without limiting the generality of the foregoing, Contractor will not deliver In-Scope PPP collected by Contractor pursuant to this Statement of Work to any person or facility (including a landfill, incinerator or energy recovery facility) other than the Designated Post-Collection Service Provider or otherwise dispose of any In-Scope PPP collected at a Depot without prior written authorization from Recycle BC.
- (e) Contractor will store In-Scope PPP collected by Contractor pursuant to this Statement of Work in a manner acceptable to the Designated Post-Collection Service Provider and Recycle BC. Without limiting the generality of the foregoing, Contractor will, at the request of Recycle BC, adopt such procedures and measures, whether permanent or temporary, as Recycle BC determines is necessary to ensure that such In-Scope PPP is adequately protected from rain,

snow and other inclement weather or otherwise to protect the recyclability and marketability of such In-Scope PPP.

- (f) Recycle BC may change the Designated Post-Collection Service Provider upon thirty (30) days' notice.
- (g) If the Designated Post-Collection Service Provider rejects any material made available for pick-up at a Principal Depot due to (i) more than 5% by weight of Not Accepted Materials or (ii) any Hazardous Waste, Recycle BC reserves the right to designate alternative procedures and requirements associated with respect to such material and to deduct any additional costs associated therewith from the Fees otherwise due to Contractor.

2.1.6 PPP from Industrial, Commercial and Institutional Sources.

- (a) Contractor will not be entitled to receive any Fees or other payments in respect of ICI PPP and will be solely responsible for any costs associated with the collection and management of ICI PPP. The amount of Household In-Scope PPP collected at a Depot (the "**Determined Household Amount**") will be determined in accordance with Section 2.1.6(b). Without limiting the generality of the foregoing, Contractor acknowledges and agrees that Contractor will be solely responsible for any costs or fees charged by the Designated Post-Collection Service Provider in respect of ICI PPP.
- (b) For purposes of determining the Determined Household Amount in respect of a Depot, Contractor will adopt one of the following options (each, an "**ICI Management Option**") for such Depot, in each case as set forth in Attachment 2.1.1, to be approved by Recycle BC.

Option 1 – Separation of Household In-Scope PPP from ICI PPP – Contractor will ensure that Household In-Scope PPP is received, weighed and processed separately from ICI PPP. Contractor will implement and maintain rules and procedures acceptable to Recycle BC to ensure that Household In-Scope PPP is received, weighed and processed separately from ICI PPP in such manner (including ensuring that Collection Containers are clearly marked to indicate which are for Household In-Scope PPP and which are for ICI PPP) as is necessary to ensure that the amount of Household In-Scope PPP collected at the Depot is accurately determined. The separation of Household In-Scope PPP and ICI PPP will be clearly communicated to Customers in a manner acceptable to Recycle BC and consistently applied and enforced by Contractor.

Option 2 – No Collection of ICI PPP – Contractor will not accept ICI PPP at the Depot. Contractor will implement and maintain rules and procedures acceptable to Recycle BC to ensure that only Household In-Scope PPP is collected at the Depot. The fact that ICI PPP may not be delivered to the Depot will be clearly communicated to Customers in a manner acceptable to Recycle BC and consistently applied and enforced by Contractor.

Option 3 – Calculation of Mix of Household In-Scope PPP and ICI PPP – Contractor will determine the percentage of In-Scope PPP collected at the Depot that is comprised of ICI PPP (the "**Determined ICI Amount**") using a methodology acceptable to Recycle BC in its sole discretion. Once the Determined ICI Amount has been determined in accordance with such methodology, Contractor will provide to Recycle BC such records and information as Recycle BC reasonably requires in order to confirm that the Determined ICI Amount accurately reflects ratio of Household In-Scope PPP to ICI PPP collected at the Depot.

Every two years, on a date to be determined by Recycle BC, and at such other time as the parties may agree, Contractor will determine the then-current ratio of Household In-Scope PPP to ICI PPP collected at the Depot. If Recycle BC determines that Determined ICI Amount does not accurately reflect the then-current ratio of Household In-Scope PPP to ICI PPP collected at the Depot, Recycle BC will be entitled to make such adjustments to the Determined ICI Amount as it considers necessary.

- (c) All rules, procedures and methodologies adopted by Contractor pursuant to this Section 2.1.6 are subject to review by Recycle BC at any time and from time to time. If Recycle BC determines that such rules, procedures or methodologies in respect of a Depot are inadequate for purposes of ensuring that Contractor only receives Fees or other payments under this Statement of Work for Household In-Scope PPP, Contractor will adopt such rules, procedures or methodologies as Recycle BC may reasonably require in order to ensure compliance with this Section 2.1.6.
- (d) Contractor may change the ICI Management Option for a Depot with the prior written approval of Recycle BC. A decision to accept a request to change the ICI Management Option for a Depot is solely at Recycle BC's discretion, but will not generally be withheld if Recycle BC determines that such change will not impair the ability of Recycle BC to accurately determine the amount of Household In-Scope PPP collected at the Depot.
- (e) Recycle BC may, upon thirty (30) days' written notice, change the ICI Management Option applicable to a Depot if Recycle BC, in its sole discretion, determines that (i) the rules and procedures necessary to operate such Depot in a manner consistent with the applicable ICI Management Option are not being consistently applied and enforced or (ii) the application of the applicable ICI Management Option does not enable Recycle BC to accurately determine the amount of Household In-Scope PPP collected at the Depot.

2.1.7 Spillage.

- (a) All In-Scope PPP collected at a Depot will be completely contained in Collection Containers at all times, except when material is actually being loaded.
- (b) Any spillage of materials that occurs at a Depot or while transporting In-Scope PPP from a Satellite Depot to the designated Principal Depot will be immediately cleaned up or removed by Contractor at its sole expense. Contractor will keep accurate records of each occurrence of spillage that occurs outside of the Principal Depot property and of its clean-up and will make such records available to Recycle BC on request. Contractor expressly acknowledges it is solely responsible for any violations of Applicable Law that may result from said spillage.
- (c) Without limiting Section 2.1.7(b) above, any discharge of liquid wastes or oils that may occur at Depots or while transporting materials from a Satellite Depot to the designated Principal Depot will be promptly cleaned up or removed by Contractor and will be remediated by Contractor at its sole expense. Such clean-up or removal will be documented with photographs and notice of such clean-up or removal will be provided to Recycle BC in writing. Contractor will comply with all Applicable Laws in respect of groundwater or drainage systems safety and standards. Contractor will immediately notify the Recycle BC of any spills that enter groundwater or drainage systems.

2.1.8 Schedule.

- (a) Contractor will clearly indicate at each Depot (i) the day(s) of the week that the such Depot will be open and (ii) on each day that the Depot is open, the hours of operation when In-Scope PPP can be delivered to the Depot. To the extent possible, open hours will remain consistent.
- (b) Each Depot will remain open for collection of In-Scope PPP on the day(s) of the week and at the hours specified under Section 2.1.8(a) regardless of weather conditions, unless weather conditions are such that continued operation would result in danger to Contractor personnel, Customers or property. In the case of closure, Contractor will send a service disruption notice to their Recycle BC collection specialist.

2.1.9 Pilot Programs.

- (a) Recycle BC may wish to test or implement one or more new services, technology systems or developments in PPP material segregation, processing or collection technology (collectively, "**Pilot Program**"). Recycle BC will provide at least ninety (90) days' written notice of its intention to implement a Pilot Program. The allocation of any costs (or savings) accrued by Recycle BC-initiated Pilot Programs will be negotiated prior to implementation pursuant to the change process in Section 2.2 of the Agreement. If Recycle BC deems the Pilot Program a success and desires to incorporate the service, technology or development from the Pilot Program into this Statement of Work, such a change will be made pursuant to the change process set out in Section 2.2 of the Agreement.
- (b) Contractor-initiated Pilot Programs will require prior written approval by Recycle BC and will be performed at no additional cost to Recycle BC.

2.2 Customer Service.

2.2.1 Customer Service Requirements.

- (a) Contractor will maintain sufficient staffing to answer and handle complaints and service requests in a timely manner made by all methods including in-person, over the phone or through correspondence.
- (b) Without limiting the generality of Section 2.1.3(b), at all times when a Depot is open for collection of In-Scope PPP, Contractor will ensure that the Depot is sufficiently staffed to provide personal Customer service, educate Customers regarding In-Scope PPP accepted and avoid Customer delay.
- (c) Contractor will place signage at each Depot to assist Customers in delivering In-Scope PPP to the appropriate areas of the Depot. Signage is to incorporate images and graphics available from Recycle BC and is subject to approval by Recycle BC.
- (d) Contractor's Customer service will be accessible by a local area code and prefix phone number or toll-free number. Customer service representatives will apply best efforts be available during Depot open hours for communication with Customers and Recycle BC representatives. When the Depot is closed, Contractor will have an answering or voice mail service available to record messages from all incoming telephone calls.

2.2.2 Customer Complaints and Requests.

- (a) Contractor will record all Customer complaints and service requests, regardless of how received, including date, time, Customer's name and address, if the Customer is willing to give this information, method of transmittal and nature, date and manner of resolution of the complaint or service request in a computerized daily log. Contractor will use commercially reasonable efforts to resolve all complaints and service requests within two (2) Business Days of the original contact.
- (b) Contractor's customer service log will be available for inspection by Recycle BC with considerations to Contractors confidentiality obligations, if requested by Recycle BC.

2.3 Promotion and Education.

- 2.3.1 Where the Contractor is not a local government, Recycle BC will have primary responsibility for developing, designing and executing public promotion, education and outreach programs. Contractor will provide Recycle BC with assistance and cooperation, including distributing Recycle BC-developed promotional and educational brochures and assisting with promotion, education and outreach programs at the direction of Recycle BC. Where Contractor is a local government, Contractor will have primary responsibility for executing public promotion, education and outreach programs, incorporating Recycle BC-developed communications messages and images in Contractor public promotion, education and outreach programs.
- 2.3.2 Recycle BC reserves the right, in its sole discretion, to require Contractor to seek advance approval of any or all public promotion, education and outreach materials associated with the collection of In-Scope PPP, including recycling guides, website content and Depot signage.
- 2.3.3 Depot Collection Fees for Local Governments are inclusive of amounts intended to cover resident education spending for promotion, education and outreach programs on an annual basis. Recycle BC reserves the right to request proof of resident education spending by Contractor.
- 2.3.4 Contractor will have primary responsibility for providing Customers service-oriented information such as hours of operation of the Depots.

SECTION 3. Performance Standards and Operational Requirements

- 3.1 Personnel Conduct. Contractor personnel performing Depot Collection Services will at all times be courteous, refrain from loud, inappropriate or obscene language, exercise due care, perform their work without delay, minimize noise and avoid damage to public or private property.
- 3.2 Facility Standards. Without limiting any other requirements or obligations of Contractor, Contractor will meet or exceed the following standards:
 - 3.2.1 Depots will be of sufficient size and dimension to provide Depot Collection Services to Customers and access for Designated Post-Collection Service Provider.
 - 3.2.2 Depots will be maintained in a clean and sanitary manner. All collection areas will have appropriate safety markings, all in accordance with applicable law. Equipment will be maintained in good condition at all times. All facilities and the equipment to manage the In-Scope PPP will operate properly and be maintained in a condition compliant with all applicable laws, good industry standards and be in a condition satisfactory to Recycle BC. All vehicles used by the facility for the management of In-Scope PPP will be equipped with variable tone or proximity activated reverse movement back-up alarms.

- 3.2.3 Contractor will receive prior written approval from Recycle BC for all Depot signage, including Contractor labeling and program information. Contractor will place Recycle BC-provided logos on Depots as directed at no additional cost to Recycle BC.
- 3.3 In-Scope Material Management. Without limiting any other requirements or obligations of Contractor, Contractor will meet or exceed the following standards:
- 3.3.1 Contractor will ensure Collection Containers are reasonably full prior to requesting pick up from the Designated Post-Collection Service Provider.
- 3.3.2 Reasonably full Collection Containers will be staged in the format appropriate to the material category (such as full super sacks of Glass Bottles and Jars on a pallet), and in a location which allows ease of access by the Designated Post-Collection Service Provider. Contractor will ensure all full Collection Containers be affixed with the appropriate reporting documents prior to shipment.
- 3.4 SOW Record and Reporting Requirements.
- 3.4.1 Service Delivery Reporting. In addition to the record keeping and reporting requirements in the Agreement, Contractor will:
- (a) provide to Recycle BC, on the Service Commencement Date and at such other times as Recycle BC may request, a complete inventory of the equipment to be used by Contractor to perform Depot Collection Services;
 - (b) maintain such other records as may be requested by Recycle BC, including:
 - (i) in respect of each Principal Depot, tonnage by each date on which the Designated Post-Collection Service Provider removed the In-Scope PPP from the Principal Depot; and
 - (ii) changes to equipment or inventory;
 - (c) make all records maintained pursuant to this Statement of Work available to Recycle BC upon request;
 - (d) provide a report to Recycle BC on associated collection metrics necessary to calculate the greenhouse gas emissions associated with the performance of Depot Collection Services no more frequently than once per quarter and no less frequently than once per year;
 - (e) upon Recycle BC's request, provide a report to Recycle BC on the costs associated with the performance of Depot Collection Services, no more frequently than once per year;
 - (f) upon Recycle BC's request, provide a response to questions posed by Recycle BC's non-financial auditor; and
 - (g) upon Recycle BC's request, provide up to two ad-hoc reports each year, at no additional cost to Recycle BC, and such ad-hoc reports (i) may include Customer service database tabulations to identify specific Service Level or participation patterns or other similar information reports; and (ii) will not require the Contractor to expend more than forty (40) staff hours per year to complete,

and such records and reports will be provided in Recycle BC-defined format and software compatibility. For reports that are provided at Recycle BC's request, Recycle BC will use best efforts to communicate such request sixty (60) days in advance of due date. Contractor and Recycle BC will meet to discuss requests outside of this scope, all parties being reasonable.

3.4.2 Claims Reporting.

- (a) Responsibility for claim reporting under Section 3.4.2(b) shall be assigned to the Designated Post-Collection Service Provider.
- (b) All Household In-Scope PPP picked-up by the Designated Post-Collection Service Provider from a Principal Depot will be documented in a manner specified by Recycle BC, including by a certified scale ticket provided by the Designated Post-Collection Service Provider, with Depot name and address, Designated Post-Collection Service Provider name and address, date, time, truck number, net weight by material type (as set out in Attachment 2.1.2, by baled versus loose and, for Foam Packaging, by white versus coloured) and such other information as Recycle BC may designate (collectively, "**Claim Information**").
- (c) The Designated Post-Collection Service Provider will report the Claim Information with respect to any Household In-Scope PPP picked up by the Designated Post-Collection Service Provider from a Principal Depot through Recycle BC's claims reporting portal or through such other method as Recycle BC may designate within ten (10) business days of the pick-up date.
- (d) Recycle BC will issue a claim summary to Contractor based on Claim Information provided to Recycle BC by the Designated Post-Collection Service Provider, and Contractor will review the claim summary for accuracy. Contractor must report to Recycle BC any content in the claim summary that Contractor disputes within thirty (30) days of the claim summary being issued.
- (e) After Recycle BC has approved the Claim Information, Recycle BC will issue a purchase order to Contractor, including a reference number. Recycle BC will issue payment to Contractor based on the approved purchase order without the need for Contractor to submit an invoice.

3.5 Service Levels. If Contractor fails to meet any Service Level set out in Attachment 3.5, Recycle BC will, in Recycle BC's sole discretion, be entitled to the applicable Service Level Failures set out in Attachment 3.5.

SECTION 4. SOW Term

This Statement of Work will commence on the SOW Effective Date and its initial term will continue until December 31, 2029. Recycle BC may extend this Statement of Work for up to two further periods of one year each, by giving Contractor notice in writing not less than ninety (90) days before the expiration of the initial term or any such additional term or terms. The initial term and any such additional term or terms are herein referred to as the "**SOW Term**".

SECTION 5. Fees

The Fees payable by Recycle BC for the performance by Contractor of the SOW Services are set out in Attachment 5 to this Statement of Work, and such Fees begin after the Service Commencement Date. For the avoidance of doubt, Contractor acknowledges and agrees that it will not be entitled to receive any Fees in respect of ICI PPP collected at Depots.

SECTION 6. Additional Terms

- 6.1 No Double Charge. Contractor will not directly or indirectly charge Customers, including by way of tax, levy or other surcharge, for the cost of providing the SOW Services if and to the extent that such costs are covered by Fees (prior to deducting any Service Level Failure Credits) or other payments that Contractor is entitled to receive from Recycle BC under this Statement of Work. In the event that the Fees do not fully cover the Contractors costs of the program, the Contractor may directly or indirectly charge Customers for the portion of the costs of providing the SOW Services that are not covered by the Fees; provided that the Contractor shall not profit from such amounts.
- 6.2 Reuse. With prior written approval from Recycle BC, the Contractor may establish a re-use program for certain materials (e.g., egg cartons, plant pots). This program will allow residents to collect these items from designated areas at the Depot at no charge, promoting the re-use of materials that are in good condition and can be repurposed. For the avoidance of doubt, no beverage container, as defined in Schedule 1 of the Regulation, deposited into a Recycle BC Collection Container may be considered for reuse.
- 6.3 Scavenging Forbidden. Except as defined in Section 6.2, Contractor will not Scavenge, or permit any person (including its employees) to Scavenge, any materials from In-Scope PPP that have been delivered by Customers to the Depot at any time and at any location during Contractor's performance of the SOW Services or otherwise.
- 6.4 Risk. Contractor will bear all costs of receipt and storage of the In-Scope PPP. Contractor will be responsible for all risks, including risk of loss of, or damage caused by, the In-Scope PPP from the time that the In-Scope PPP is received by Contractor until the Contractor delivers such In-Scope PPP to the Designated Post-Collection Service Provider. In-Scope PPP will be deemed to be delivered to the Designated Post-Collection Service Provider when picked up from Contractor's facility and accepted by receipt of scale ticket or bill of lading from the Designated Post-Collection Service Provider. Contractor will be responsible for the cost of any damage to Collection Containers caused by Contractor.
- 6.5 Shared Services. Contractor may collect material other than In-Scope PPP at the Depot if (a) the activities do not interfere with Depot Collection Services of Household In-Scope PPP from Customers and (b) Contractor adopts such rules and procedures as are necessary to ensure that such materials are not mixed with Household In-Scope PPP. Such rules and procedures are subject to review by Recycle BC at any time and from time to time. If Recycle BC determines that such rules and procedures or methodologies in respect of a Depot are inadequate, Contractor will adopt such rules and procedures as Recycle BC may reasonably require in order to ensure compliance with this Section 6.5.
- 6.6 No Exclusivity. Execution of this Statement of Work does not confer on Contractor exclusive access to Customers in proximity to the Depots or otherwise.

(Signature page follows.)

IN WITNESS WHEREOF the parties have executed this Statement of Work effective as of the SOW Effective Date.

MMBC RECYCLING INC.

REGIONAL DISTRICT OF CENTRAL KOOTENAY

Per: _____
(I have authority to bind Recycle BC)

Per: _____
(I have authority to bind Contractor)

Name: _____
(Please Print)

Name: _____
(Please Print)

Title: _____

Title: _____

Per: _____
(I have authority to bind Contractor)

Name: _____
(Please Print)

Title: _____

Note: Second signatory to be completed by Contractor only if Contractor requires two signatories (and by leaving the second signatory blank and returning the Statement of Work to Recycle BC, Contractor and the first signatory represent that no additional signatories are required).

**ATTACHMENT 2.1.1 TO SCHEDULE 2.1(c)
APPROVED DEPOTS**

Principal Depot Details					
Depot Name	Street Number	Street Name	Municipality	Postal Code	ICI Management Option
Balfour Transfer Station	821	Heyland Rd	Balfour	V0G 1C0	2
Castlegar (Ootischenia) Landfill	670	Columbia Rd	Castlegar	V1N 4K6	1
Crawford Bay Transfer Station	16798	Crawford Creek Rd	Crawford Bay	V0B 0B1	2
Crescent Valley Hall	1285	Hwy 6	Crescent Valley	V0G 1H0	1
Creston Car Wash	412	Helen St	Creston	V0B 1G6	1
Edgewood Transfer Station	8855	BC-6	Edgewood	V0G 1J0	2
Kaslo Transfer Station	1302	Kaslo West Rd	Kaslo	V0G 1M0	1
Nakusp Landfill	1420	Hot Springs Rd	Nakusp	V0G 1R2	1
Nelson Lakeside	70	Lakeside Dr	Nelson	V1L 6B9	1
New Denver Village	611	Slocan Ave	New Denver	V0G 1S0	1
Salmo Village	1003	Glendale Ave	Salmo	V0G 1Z0	1
Slocan Transfer Station	8875	Harold St	Slocan	V0G 0B8	2

Satellite Depot Details						
Depot Name	Street Number	Street Name	Municipality	Postal Code	ICI Management Option	Delivery Location - Principal Depot
Boswell	12575	Hepher Road	Boswell		2	Creston Car Wash
Burton	248	Caribou Creek Road	Burton		2	Edgewood Transfer Station
Creston Landfill	150	Mallory Road	Creston	V0B 1G2	2	Creston Car Wash
Grohman Narrows	1201	Insight Drive	Nelson	V1L 5P5	2	Nelson Lakeside
Kokanee Marina	5110	BC Highway 3A	Nelson		2	Nelson Lakeside
Marblehead	13825	BC Highway 31	Marblehead		2	Kaslo Transfer Station

Riondel	252	Fawler Street	Riondel		2	Crawford Bay Transfer Station
Winlaw	5686	BC Highway 6	Winlaw		2	Slocan Transfer Station
Yahk	8790	Railway Avenue	Yahk		2	Creston Car Wash
Ymir	190	Oscar Bear Road	Ymir		2	Salmo Village

ATTACHMENT 2.1.2 TO SCHEDULE 2.1(c)
IN-SCOPE PPP

For the purpose of this Statement of Work, In-Scope PPP will mean the material described in the categories of PPP below that have been selected as indicated by an "x" in the associated check box (and the In-Scope PPP shall be segregated, at a minimum, in the streams that have been selected below):

- Paper and Cardboard, which must be segregated from all other PPP.
- Mixed Containers, which must be segregated from all other PPP.
- Flexible Plastics, which must be segregated from all other PPP.
- White Foam Packaging, which must be segregated from all other PPP.
- Coloured Foam Packaging, which must be segregated from all other PPP.
- Glass Bottles and Jars, which must be segregated from all other PPP.

To the extent beverage containers as defined in Schedule 1 of the Regulation are comingled with In-Scope PPP that Customers drop off at the Depot, such beverage containers shall be deemed to be In-Scope PPP for the purposes of this Statement of Work, with polycoated beverage containers, plastic beverage containers and metal beverage containers defined as Mixed Containers and glass beverage containers defined as Glass Bottles and Jars.

**ATTACHMENT 3.5 TO SCHEDULE 2.1(c)
SERVICE LEVELS FAILURES**

Contractor may incur Service Level Failure Credits for the Service Level Failures described in this Attachment 3.5; provided, however, that the aggregate amount of Service Level Failure Credit in respect of any calendar year shall not exceed the aggregate amount of Fees payable to Contractor in respect of such calendar year:

	Service Level Failure	Service Level Failure Credit								
1	Failure to clean-up or collect PPP that has spilled outside the Depot boundary within 2 hours.	Twice the cost of cleanup incurred by Recycle BC (if Recycle BC performs the cleanup) plus \$500 per incident (regardless of who performs the cleanup).								
2	Pick up by the Designated Post-Collection Service Provider of materials that contain more than 5% by weight of Not Accepted Materials.	<p>The Per Load Amount for each weigh-scale ticketed load that results in a Service Level Failure, provided that the aggregate Service Level Failure Credit for this Service Level Failure Credit in respect of any calendar year shall not exceed 75% of the Fees paid in the preceding 12 months or, in the event that the Service Level Failure occurs before 12 months of Fees have been paid, the Service Level Failure Credit shall not exceed 75% of the annualized Fees paid.</p> <p>For the purpose of this Service Level Failure, the “Per Load Amount” in respect of any year will be determined by an escalating percentage of annualized Fees in accordance with the following table:</p> <table border="1"> <thead> <tr> <th>Occurrence</th> <th>Per Load Amount</th> </tr> </thead> <tbody> <tr> <td>1st</td> <td>2.5% of annualized Fees up to a maximum of \$2500</td> </tr> <tr> <td>2nd</td> <td>5.0% of annualized Fees up to a maximum of \$5000</td> </tr> <tr> <td>3rd and onwards</td> <td>10.0% of annualized Fees up to a maximum of \$10,000</td> </tr> </tbody> </table>	Occurrence	Per Load Amount	1 st	2.5% of annualized Fees up to a maximum of \$2500	2 nd	5.0% of annualized Fees up to a maximum of \$5000	3 rd and onwards	10.0% of annualized Fees up to a maximum of \$10,000
Occurrence	Per Load Amount									
1 st	2.5% of annualized Fees up to a maximum of \$2500									
2 nd	5.0% of annualized Fees up to a maximum of \$5000									
3 rd and onwards	10.0% of annualized Fees up to a maximum of \$10,000									
3	Pick up by the Designated Post-Collection Service Provider of materials that contain more than the specified Cross Contamination percent threshold indicated in section 2.1.2.	<p>The Per Load Amount for each weigh-scale ticketed load that results in a Service Level Failure, provided that the aggregate Service Level Failure Credit for this Service Level Failure Credit in respect of any calendar year shall not exceed 75% of the Fees paid in the preceding 12 months or, in the event that the Service Level Failure occurs before 12 months of Fees have been paid, the Service Level Failure Credit shall not exceed 75% of the annualized Fees paid.</p> <p>For the purpose of this Service Level Failure, the “Per Load Amount” in respect of any year will be determined by an escalating percentage of annualized Fees in accordance with the following table:</p>								

Service Level Failure		Service Level Failure Credit									
		<table border="1"> <thead> <tr> <th>Occurrence</th> <th>Per Load Amount</th> </tr> </thead> <tbody> <tr> <td>1st</td> <td>2.5% of annualized Fees up to a maximum of \$2500</td> </tr> <tr> <td>2nd</td> <td>5.0% of annualized Fees up to a maximum of \$5000</td> </tr> <tr> <td>3rd and onwards</td> <td>10.0% of annualized Fees up to a maximum of \$10,000</td> </tr> </tbody> </table>	Occurrence	Per Load Amount	1 st	2.5% of annualized Fees up to a maximum of \$2500	2 nd	5.0% of annualized Fees up to a maximum of \$5000	3 rd and onwards	10.0% of annualized Fees up to a maximum of \$10,000	
Occurrence	Per Load Amount										
1 st	2.5% of annualized Fees up to a maximum of \$2500										
2 nd	5.0% of annualized Fees up to a maximum of \$5000										
3 rd and onwards	10.0% of annualized Fees up to a maximum of \$10,000										
4	Contractor delivers In-Scope PPP collected at a Depot to any person or facility (including a landfill, incinerator or energy recovery facility) other than the Designated Post-Collection Service Provider or otherwise disposes of any In-Scope PPP collected at a Depot without the prior written authorization of Recycle BC.	50% of annualized Fees per incident, up to a maximum of \$25,000.									
6	Failure to provide a required report pursuant to Section 3.4 on time.	Withholding of all Fees due to Contractor until the required report is submitted.									
7	Contractor fails to provide Recycle BC with the required notice of a Depot ownership change or termination.	25% of annualized Fees if termination notice does not meet the required term up to a maximum of \$25,000, or suspension of service, including material pick up and payment, until the ninety (90) day required notice period is fulfilled, at Recycle BC's choice.									

**ATTACHMENT 5 TO SCHEDULE 2.1(c)
FEES**

1. In consideration for Contractor’s performance of the SOW Services, Recycle BC will pay Contractor the following amounts for Household In-Scope PPP collected pursuant to this Statement of Work and made available to the Designated Post-Collection Service Provider for pick-up at a Principal Depot:
- (a) The selected (as indicated by an “x” in the associated check box) Depot Collection Fee (including, if selected, the Baling Fee), to be invoiced and paid pursuant to the claims submission process in accordance with the terms of the Agreement.

For the following Depots:

- Crawford Bay Transfer Station**
Edgewood Transfer Station
Nakusp Landfill
New Denver Village
Slocan Transfer Station

Depot Collection Fees (\$/Tonne)						
Depot Fee Group	Materials					
	Paper and Cardboard	Mixed Containers	Flexible Plastics	White Foam Packaging	Coloured Foam Packaging	Glass Bottles and Jars
<input checked="" type="checkbox"/> Depot Fee Group 1 (< 80 Tonnes)						
Fee	<input checked="" type="checkbox"/> \$505.00	<input checked="" type="checkbox"/> \$1,010.00	<input checked="" type="checkbox"/> \$2,095.00	<input checked="" type="checkbox"/> \$8,250.00	<input checked="" type="checkbox"/> \$8,250.00	<input checked="" type="checkbox"/> \$790.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 2 (≥ 80 or < 125 Tonnes)						
Fee	<input type="checkbox"/> \$350.00	<input type="checkbox"/> \$800.00	<input type="checkbox"/> \$1,375.00	<input type="checkbox"/> \$6,195.00	<input type="checkbox"/> \$6,195.00	<input type="checkbox"/> \$595.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 3 (≥ 125 or < 400 Tonnes)						
Fee	<input type="checkbox"/> \$215.00	<input type="checkbox"/> \$790.00	<input type="checkbox"/> \$1,250.00	<input type="checkbox"/> \$3,330.00	<input type="checkbox"/> \$3,330.00	<input type="checkbox"/> \$340.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 4 (≥ 400 Tonnes)						
Fee	<input type="checkbox"/> \$130.00	<input type="checkbox"/> \$530.00	<input type="checkbox"/> \$1,250.00	<input type="checkbox"/> \$2,365.00	<input type="checkbox"/> \$2,365.00	<input type="checkbox"/> \$295.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a

For the following Depots:
Crescent Valley Hall
Kaslo Transfer Station
Salmo Village

Depot Collection Fees (\$/Tonne)						
Depot Fee Group	Materials					
	Paper and Cardboard	Mixed Containers	Flexible Plastics	White Foam Packaging	Coloured Foam Packaging	Glass Bottles and Jars
<input type="checkbox"/> Depot Fee Group 1 (< 80 Tonnes)						
Fee	<input type="checkbox"/> \$505.00	<input type="checkbox"/> \$1,010.00	<input type="checkbox"/> \$2,095.00	<input type="checkbox"/> \$8,250.00	<input type="checkbox"/> \$8,250.00	<input type="checkbox"/> \$790.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input checked="" type="checkbox"/> Depot Fee Group 2 (≥ 80 or < 125 Tonnes)						
Fee	<input checked="" type="checkbox"/> \$350.00	<input checked="" type="checkbox"/> \$800.00	<input checked="" type="checkbox"/> \$1,375.00	<input checked="" type="checkbox"/> \$6,195.00	<input checked="" type="checkbox"/> \$6,195.00	<input checked="" type="checkbox"/> \$595.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 3 (≥ 125 or < 400 Tonnes)						
Fee	<input type="checkbox"/> \$215.00	<input type="checkbox"/> \$790.00	<input type="checkbox"/> \$1,250.00	<input type="checkbox"/> \$3,330.00	<input type="checkbox"/> \$3,330.00	<input type="checkbox"/> \$340.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 4 (≥ 400 Tonnes)						
Fee	<input type="checkbox"/> \$130.00	<input type="checkbox"/> \$530.00	<input type="checkbox"/> \$1,250.00	<input type="checkbox"/> \$2,365.00	<input type="checkbox"/> \$2,365.00	<input type="checkbox"/> \$295.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a

For the following Depots:
Balfour Transfer Station
Castlegar (Ootischenia) Landfill
Creston Car Wash

Depot Collection Fees (\$/Tonne)						
Depot Fee Group	Materials					
	Paper and Cardboard	Mixed Containers	Flexible Plastics	White Foam Packaging	Coloured Foam Packaging	Glass Bottles and Jars
<input type="checkbox"/> Depot Fee Group 1 (< 80 Tonnes)						
Fee	<input type="checkbox"/> \$505.00	<input type="checkbox"/> \$1,010.00	<input type="checkbox"/> \$2,095.00	<input type="checkbox"/> \$8,250.00	<input type="checkbox"/> \$8,250.00	<input type="checkbox"/> \$790.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 2 (≥ 80 or < 125 Tonnes)						
Fee	<input type="checkbox"/> \$350.00	<input type="checkbox"/> \$800.00	<input type="checkbox"/> \$1,375.00	<input type="checkbox"/> \$6,195.00	<input type="checkbox"/> \$6,195.00	<input type="checkbox"/> \$595.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a

<input checked="" type="checkbox"/> Depot Fee Group 3 (≥ 125 or < 400 Tonnes)						
Fee	<input checked="" type="checkbox"/> \$215.00	<input checked="" type="checkbox"/> \$790.00	<input checked="" type="checkbox"/> \$1,250.00	<input checked="" type="checkbox"/> \$3,330.00	<input checked="" type="checkbox"/> \$3,330.00	<input checked="" type="checkbox"/> \$340.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 4 (≥ 400 Tonnes)						
Fee	<input type="checkbox"/> \$130.00	<input type="checkbox"/> \$530.00	<input type="checkbox"/> \$1,250.00	<input type="checkbox"/> \$2,365.00	<input type="checkbox"/> \$2,365.00	<input type="checkbox"/> \$295.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a

For the following Depot:
Nelson Lakeside

Depot Collection Fees (\$/Tonne)						
Depot Fee Group	Materials					
	Paper and Cardboard	Mixed Containers	Flexible Plastics	White Foam Packaging	Coloured Foam Packaging	Glass Bottles and Jars
<input type="checkbox"/> Depot Fee Group 1 (< 80 Tonnes)						
Fee	<input type="checkbox"/> \$505.00	<input type="checkbox"/> \$1,010.00	<input type="checkbox"/> \$2,095.00	<input type="checkbox"/> \$8,250.00	<input type="checkbox"/> \$8,250.00	<input type="checkbox"/> \$790.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 2 (≥ 80 or < 125 Tonnes)						
Fee	<input type="checkbox"/> \$350.00	<input type="checkbox"/> \$800.00	<input type="checkbox"/> \$1,375.00	<input type="checkbox"/> \$6,195.00	<input type="checkbox"/> \$6,195.00	<input type="checkbox"/> \$595.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input type="checkbox"/> Depot Fee Group 3 (≥ 125 or < 400 Tonnes)						
Fee	<input type="checkbox"/> \$215.00	<input type="checkbox"/> \$790.00	<input type="checkbox"/> \$1,250.00	<input type="checkbox"/> \$3,330.00	<input type="checkbox"/> \$3,330.00	<input type="checkbox"/> \$340.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a
<input checked="" type="checkbox"/> Depot Fee Group 4 (≥ 400 Tonnes)						
Fee	<input checked="" type="checkbox"/> \$130.00	<input checked="" type="checkbox"/> \$530.00	<input checked="" type="checkbox"/> \$1,250.00	<input checked="" type="checkbox"/> \$2,365.00	<input checked="" type="checkbox"/> \$2,365.00	<input checked="" type="checkbox"/> \$295.00
Baling Fee	<input type="checkbox"/> + \$180.00	<input type="checkbox"/> + \$190.00	<input type="checkbox"/> + \$790.00	n/a	n/a	n/a

Any change in whether Contractor bales or does not bale In-Scope PPP must be made pursuant to the change procedure in Section 2.2 of the Agreement.

A Principal Depot will initially be in a particular Depot Collection Fee category ("**Depot Fee Group**"), as identified in the Depot Collection Fees table immediately above, based on:

- if collection of Household In-Scope PPP at such Principal Depot pursuant to the Agreement commenced on or before August 1, 2023, the aggregate weight of Household In-Scope PPP collected at such Principal Depot in the twelve (12) month period from August 1, 2023 to July 31, 2024;
- if collection of Household In-Scope PPP at such Principal Depot pursuant to the Agreement commenced after August 1, 2023 but on or before July 1, 2024, the annualized aggregate

weight of Household In-Scope PPP collected at such Principal Depot from such date to July 31, 2024; or

- if collection of Household In-Scope PPP at such Principal Depot pursuant to the Agreement commenced or commences after July 1, 2024, Recycle BC's good faith estimate (based on discussions with Contractor and the best available information at such time) of the aggregate weight of Household In-Scope PPP to be collected at such Principal Depot over a twelve (12) month period.

Recycle BC will adjust the Depot Fee Group on the first day of each calendar year, based in each case on the aggregate weight of Household In-Scope PPP collected at such Principal Depot in the twelve (12) month period ending on August 31 of the immediately preceding calendar year (pro-rated in the case of a partial year).

Recycle BC reserves the right at its sole discretion to adjust a Principal Depot's Depot Fee Group for a calendar year if the aggregate weight of Household In-Scope PPP collected at such Principal Depot is 5% more (or less) than the upper (or lower) tonne threshold for such Depot Fee Group. Upon changing the Depot Fee Group for a calendar year, which may be done retroactively:

- if the Principal Depot is moved to a higher Depot Fee Group (i.e. from Depot Fee Group 3 to Depot Fee Group 4), any incremental Household In-Scope PPP collected at the Principal Depot that is more than 5% greater than the upper threshold for the initial Depot Fee Group will be paid at the Depot Collection Fee rates of the next higher Depot Fee Group; or
- if the Principal Depot is moved to a lower Depot Fee Group (i.e. from Depot Fee Group 3 to Depot Fee Group 2), Recycle BC will pay Contractor such amount as is necessary to ensure that Contractor receives, in the aggregate, the amount Contractor would have been entitled to receive if the Principal Depot had been in the lower Depot Fee Group for such calendar year.

2. Recycle BC will adjust the Depot Collection Fees each year, up or down, on the first day of January of each year. Recycle BC reserves the right to choose the adjustment mechanism to be used each year, as between (i) the results of a cost study that samples collection service providers to determine the costs associated with the performance of Depot Collection services; and (ii) an adjustment that is based on the Consumer Price Index (CPI) for BC (All Items), which will be calculated as follows:

- (a) Depot Collection Fee = Depot Collection Fee in the previous year x (1 + (percentage change in CPI/100)), where
 - (i) percentage change in CPI = (current year CPI – previous year CPI)/(previous year CPI) x 100%; and
 - (ii) each year's CPI is the published CPI on September 1st of the year prior.



Committee Report

Date of Report: October 28, 2024
Date & Type of Meeting: November 13, 2024 Joint Resource Recovery Committee
Author: Alayne Hamilton, HB Tailings Facility Technologist
Subject: HB REMEDIATION AND CLOSURE – SHORT-TERM BORROWING AUTHORIZATION
File: 12-6300-HBD-01
Electoral Area/Municipality: Central Sub-Region

SECTION 1: EXECUTIVE SUMMARY

The purpose of this report is to outline a request a short-term borrowing authorization for the 2024 costs for the HB Tailings Facility post-closure monitoring and assessment works, as outlined in the 2024 - 2028 Financial Plan.

SECTION 2: BACKGROUND/ANALYSIS

The HB Remediation and Closure Project is now in the active-care phase, which requires increased monitoring and assessment to meet the updated permit conditions established in the Facility’s 2021 amended *Mines Act* permit. Timely execution of all post-closure activities should enable the RDCK to apply for reduced monitoring frequencies at the site as soon as possible.

The 2024 costs associated with these post-closure activities are detailed in the 2024-2028 Financial Plan for Service S187 Central Sub-Region Resource Recovery, specifically within the Capital Expenditures account. Correspondingly, the budget anticipated an equal amount of revenue from short-term borrowing to cover the cost of this post-closure work, while ongoing routine monitoring and maintenance activities that will persist at the site, regardless of the Facility’s closure status, are categorized under separate operating expense accounts.

To secure the appropriate revenue in 2024, Staff are requesting that the Board approve the short-term borrowing authorization, as outlined in 2024-2028 Financial Plan, for the 2024 HB Remediation and Closure Project post-closure activities.

SECTION 3: DETAILED ANALYSIS

3.1 Financial Considerations – Cost and Resource Allocations:

Included in Financial Plan:	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Financial Plan Amendment:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Debt Bylaw Required:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Public/Gov’t Approvals Required:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

For 2024, within the Financial Plan, \$449,827 was approved within the Capital Expenditures account to cover the costs related to the post-closure activities at the HB Facility. The Financial Plan proposed utilizing short-term borrowing to supply the revenue for the entire budgeted post-closure activities amount of \$449,827.

Initial conservative year-end projections suggest the capital expenditures for the HB Facility post-closure works in 2024 may be approximately \$303,827, which is approximately \$146,000 less than the S187 budget value. This mainly arises from the deferral of a drilling and instrumentation project originally scheduled for 2024, which has been postponed to 2025.

Although the post-closure activities in 2024 may be less than what was outlined in the Financial Plan, Staff recommend the Board authorize the short-term borrowing of up to a maximum of \$449,827. This approach ensures that the necessary approvals are in place before the end of year borrowing deadline while allowing time for year-end values to be confirmed. Alternatively, the portion of the borrowing to fund the deferred drilling project could be drawn in 2025 if other sources of revenue, such as reserves, are not available.

The current short-term borrowing interest rate provided through the Municipal Finance Authority is 4.63%. For the total authorized borrowing amount of \$449,827, the estimated total repayment amount for the 5-year term is \$507,203. The short-term borrowing interest schedule calculator, current as of October 29th, is included in Attachment A.

If the Board prefers not to authorize the full borrowing amount at this time, an alternative borrowing amount of \$303,827 could be considered, which reflects the current year-end estimates for the post-closure activities for HB, and the potential corresponding required revenue amount. However, there is still uncertainty in final year-end costs, especially given the sites sensitivity to extreme events, and staff recommend authorizing up to the full amount included in the Financial Plan at this time.

To ensure the borrowing authorization is secured at an appropriate time before the 2024 borrowing cut-off, and covers the amount approved in the Financial Plan, Staff recommend that the Board authorize up to \$449,827 be borrowed from the Municipal Finance Authority on a 5-year term, for the purpose of the HB Remediation and Closure Project post-closure monitoring and assessment costs. If the amount drawn from the borrowing proves to be more than required, the additional amount can be returned to MFA to reduce the debt servicing costs.

3.2 Legislative Considerations (Applicable Policies and/or Bylaws):

None at this time.

3.3 Environmental Considerations

None at this time.

3.4 Social Considerations:

None at this time.

3.5 Economic Considerations:

None at this time.

3.6 Communication Considerations:

None at this time.

3.7 Staffing/Departmental Workplace Considerations:

Ongoing oversight of the post-closure period at the HB Facility will continue to be a focus of the Environmental Projects Lead.

3.8 Board Strategic Plan/Priorities Considerations:

None at this time.

SECTION 4: OPTIONS & PROS / CONS

Option 1: That the Board of the Regional District of Central Kootenay authorizes up to \$449,827 be borrowed, under Section 403 of the Local Government Act, from the Municipal Finance Authority, for the purpose of HB Remediation and Closure Project post-closure monitoring and assessment costs; and that the loan be repaid within 5 years, with no rights of renewal; AND FURTHER That the repayment costs be paid from Service S187 Central Sub-Region Resource Recovery.

PROS:

- Provides funding for full revenue amounts identified in the Financial Plan for 2024 HB post-closure activities.
- Meets MFA requirements for borrowing timelines for 2024.
- Do not need to proceed with another borrowing authorization in 2025 for the deferred drilling and instrumentation project.

CONS:

- Requires a borrowing authorization to fund HB works.
- Provides a borrowing authorization before final costs for the year are known.
- Additional effort to do a second draw of the borrowing in 2025 for the deferred drilling and instrumentation project.

Option 2: That the Board of the Regional District of Central Kootenay authorizes up to \$303,827 be borrowed, under Section 403 of the Local Government Act, from the Municipal Finance Authority, for the purpose of the HB Remediation and Closure Project post-closure monitoring and assessment costs; and that the loan be repaid within 5 years, with no rights of renewal.

PROS:

- Provide funding for current estimated revenue amounts required for the HB post-closure activities, based on early year-end projections.
- Meets MFA requirements for borrowing timelines for 2024.
- Reduces the total amount required in the borrowing authorization.

CONS:

- Requires a second borrowing authorization in 2025 to fund the deferred drilling and instrumentation project.
- The borrowed amount may not fully cover capital costs in 2024 if the final actual costing for 2024 is higher than currently estimated

SECTION 5: RECOMMENDATIONS

That the Board of the Regional District of Central Kootenay authorizes up to \$449,827 be borrowed, under Section 403 of the Local Government Act, from the Municipal Finance Authority, for the purpose of HB Remediation and Closure Project post-closure monitoring and assessment costs; and that the loan be repaid within 5 years, with no rights of renewal;

AND FURTHER That the repayment costs be paid from Service S187 Central Sub-Region Resource Recovery.

Respectfully submitted,



Alayne Hamilton – Environmental Projects Lead

CONCURRENCE

Resource Recovery Manager – Amy Wilson
General Manager of Environmental Services – Uli Wolf
Chief Administrative Officer – Stuart Horn

ATTACHMENTS:

Attachment A – Short-Term Loan Interest Schedule Calculator. October 29, 2024.

ATTACHMENT A

SHORT TERM LOAN CALCULATOR

Principle	450,000.00
Interest Rate	4.63%
Term (Y)	5
Yearly Int. \$	20,835.00
Draw Date	2025-12-01
Annual Payment	90,000.00

	2025	2026	2027	2028	2029	2030
Interest	1,712.47	19,442.19	15,275.19	11,108.19	6,941.19	2,774.19
Principle	-	90,000.00	90,000.00	90,000.00	90,000.00	90,000.00

Date	Principle	Daily Int. Rate
	450,000.00	57.08
2026-09-01	360,000.00	45.67
2027-09-01	270,000.00	34.25
2028-08-31	180,000.00	22.83
2029-08-31	90,000.00	11.42
2030-09-01	-	

REGULATORY REPORTING REQUIREMENTS

complete
 in progress
 overdue

SITE	ASSESSMENT	2023	2024	2025	2026	2027	2028	2029	2030	STAFF	DUE	NOTES
CRESTON												
Active Landfill	EMP Memorandum - Q1	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	EMP Memorandum - Q2	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	EMP Memorandum - Q3	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	EMP Memorandum - Q4	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	Annual Report	x	x	x	x	x	x	x		Nathan	March 31 of following year	
	5-Year Report								x*	Nathan	-	*Assumes OC amendment approved in 2025
	Hydrogeology Assessment	x							x*	Heidi	-	*Assumes OC amendment approved in 2025
	Design & Operations Plan			x*					x*	Nathan	-	*Waiting on OC amendment, assumes amendment approved in 2025
	LFG Assessment (Provincial)	x						x		Heidi	March 31 of following year	
	LFG Assessment (Federal)			x	x	x	x	x	x	Heidi	TBD	Anticipated to come into force in 2025
	GHG Quantification (flare)	x		x		x		x		Heidi	year of assessment	
OC Amendment Application			x						Heidi	-	Waiting on purchase of buffer lands from LKB	
Closure Plan									-	-	Will need if OC amendment not approved	
Compost Facility	Annual Report			x*	x	x	x	x	x	Alayne		*assumes OMRR policy updates are implemented and formal reports are required
BOSWELL/DESTINY BAY												
Legacy Landfill	EMP Memorandum - Q3	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	Abandonment Application	x								Nathan	-	
	Site Disclosure Statement		x							Nathan	-	
	Closure Plan			x						Nathan		
CRAWFORD BAY												
Legacy Landfill	EMP Memorandum - Q3	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	Abandonment Application	x								Nathan	-	
	Site Disclosure Statement		x							Nathan	-	
	Closure Plan			x						Nathan		
CENTRAL												
Active Landfill	EMP Memorandum - Q2	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	EMP Memorandum - Q4	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	Annual Report	x		x	x	x	x		x	Nathan	April 30 of following year	Need to get OC amendment to reduce this to just EMP
	5-Year Report		x					x		Nathan	April 30 of following year	Need to get OC amendment to reduce this to just EMP
	Hydrogeology Assessment		x*					x*		Heidi	April 30 of following year	*ask for OC amendment to remove since landfill is not operating
	Design & Operations/Closure Plan		x*					x*		-	April 30 of following year	*was due in 2020; ask for OC amendment to remove since landfill is not operating
	Biological Impact Assessment		x*					x*		Heidi	Year after completed	*ask for OC amendment to remove since landfill is not operating
	LFG Assessment (Provincial)	x						x*		Heidi	March 31 of following year	
	OC Amendment Application			x							-	
Post-Closure Plan			x*					x*	Nathan	5th year after last submitted	*if OC amendment approves doing this instead of DOCP	
Compost Facility	Annual Report			x*	x	x	x	x	x	Alayne		*assumes OMRR policy updates are implemented and formal reports are required
HB TSF	See separate tabs									Alayne		
NELSON												
Legacy Landfill	Closure Plan			x						Alayne	-	Coming Closure Plan with Nelson's for adjacent property

REGULATORY REPORTING REQUIREMENTS

complete
in progress
overdue

SITE	ASSESSMENT	2023	2024	2025	2026	2027	2028	2029	2030	STAFF	DUE	NOTES
BALFOUR												
Legacy Landfill	Abandonment Application	x								Nathan	-	
	Site Disclosure Statement		x							Nathan	-	
	Closure Plan			x						Nathan		
KASLO												
Legacy Landfill	Abandonment Application	x								Nathan	-	
	Site Disclosure Statement		x							Nathan	-	
	Closure Plan			x						Nathan		
MARBLEHEAD												
Legacy Landfill	Abandonment Application	x								Nathan	-	
	Site Disclosure Statement		x							Nathan	-	
	Closure Plan			x						Nathan		
OOTISCHENIA												
Active Landfill	EMP Memorandum - Q2	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	EMP Memorandum - Q4	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	Annual Report	x		x	x	x	x		x	Nathan	April 30 of following year	Need to get OC amendment to reduce this to just EMP
	5-Year Report		x						x	Nathan	April 30 of following year	Need to get OC amendment to reduce this to just EMP
	Hydrogeology Assessment		x						x	Heidi	April 30 of following year	
	Design & Operations/Closure Plan		x*						x	Nathan	April 30 of following year	*completed update in 2019 and semi-annual QP site visits; in conjunction with lands application and OC amendment for optimized footprint
	LFG Assessment (Provincial)	x							x	Heidi	March 31 of following year	
	LFG Assessment (Federal)			x	x	x	x	x	x	Heidi	TBD	Anticipated to come into force in 2025; LF will likely be regulated to manage LFG in 2033 which will add additional reporting requirements
	OC Amendment Application									-		
Post-Closure Plan									-			
SLOCAN												
Legacy Landfill	EMP Memorandum	x	x	x	x	x	x	x	x	Nathan	60 days after event	1x/year
	Abandonment Application	x								Nathan	-	
	Site Disclosure Statement		x							Nathan	-	
	Closure Plan			x						Nathan		*may require further environmental assessment if requested by Ministry
ROSEBERY												
Legacy Landfill	Abandonment Application	x								Nathan	-	
	Site Disclosure Statement		x							Nathan	-	
	Closure Plan			x						Nathan		
NAKUSP												
Active Landfill	EMP Memorandum - Q2	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	EMP Memorandum - Q4	x	x	x	x	x	x	x	x	Nathan	60 days after event	
	Annual Report	x		x	x	x*	x*		x*	Nathan	April 30 of following year	OC amendment upon closure should reduce this to just EMP
	5-Year Report		x						x*	Nathan	April 30 of following year	OC amendment upon closure should reduce this to just EMP
	Hydrogeology Assessment		x							Heidi	April 30 of following year	
	Design & Operations/Closure Plan		x							Nathan	April 30 of following year	
	OC Amendment Application					x					-	
	Post-Closure Plan			x						x	Nathan	5th year after last submitted

REGULATORY REPORTING REQUIREMENTS

complete
 in progress
 overdue

SITE	ASSESSMENT	2023	2024	2025	2026	2027	2028	2029	2030	STAFF	DUE	NOTES
BURTON												
Legacy Landfill	Abandonment Application	x								Nathan		
	Site Disclosure Statement		x							Nathan		
	Closure Plan			x						Nathan		
EDGEWOOD												
Legacy Landfill	Abandonment Application	x								Nathan		
	Site Disclosure Statement		x							Nathan		
	Closure Plan			x						Nathan		
RDCK (non-regulatory)												
Recycling	Annual Report		x	x	x	x	x	x	x	Akane		
Other	Waste Composition Study	x					x			Heidi		
	GHG Quantification (contractors)	x	x	x	x	x	x	x	x	Heidi/Akane		For sustainability group for LGCAP reporting

HB 2023 REPORTING REQUIREMENTS

reports that need to be sent to the First Nations identified within Mines Act permit M-218

Task	Document or Permit Requirement	Due Date	Permit Condition	Notes	EMLI	Ktunaxa Nation Council	Upper Nicola Band	Penticton Indian Band	Shuswap Band	Lower Similkameen Indian Band	Okanagan Nation Alliance	Okanagan Indian Band
					Date Sent	Date Sent	Date Sent	Date Sent	Date Sent	Date Sent	Date	Date
3	Assign an Environmental Site Manager	Prior to Construction	C.2.	to Chief Inspector	2021-05-31							
1	EPRP Test	Annually	Code	Summary of test included in 2022 Annual Reclamation Report	-	-	-	-	-	-	-	-
2	Noxious Weed Management	Ongoing	C.10.(b)	no submittal required	-	-	-	-	-	-	-	-
3	Departure from Approval - written notification with approval	During Construction (if needed)	A.1.	to Chief Inspector	-	-	-	-	-	-	-	-
4	All reports, permits, specs, monitoring plans on site at all times	Ongoing	B.1.(a)	no submittal required	-	-	-	-	-	-	-	-
5	Advice of Geotechnical Indcident Form (if danger occurrence happens)	During Construction (if needed)	B.1.(d)	to Chief Inspector	-	-	-	-	-	-	-	-
6	Work Suspended due to Environmental Issue - report	During Construction (if needed)	C.7.	to Chief Inspector	-	-	-	-	-	-	-	-
7	Releases of Sediment Laden Water - characterize and report	If needed	C.8.b	to Chief Inspector via email/MineSpace. Incident details from previous year included in Annual Reclamation Report.	2023-03-29/2023-05-08	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-08	2024-05-07
8	Reclamation Research Program	In Annual Reclamation Report - March 31	C.13.(a)	to Chief Inspector	-	-	-	-	-	-	-	-
9	Compliance Status Report	Annually - March 31	A.8.	to Chief Inspector	2023-03-29	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-08	2024-05-07
10	OMS Manual with quantitative performance objectives and TARPs	Annually - March 31	B.2.(a)	MineSpace	2023-03-21	-	-	-	-	-	-	-
11	Annual Reclamation Report	Annually - March 31	Code	MineSpace	2023-03-29	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-08	2024-05-07
12	Annual Review of Environmental Management System	In Annual Reclamation Report - March 31	C.1.(b)	MineSpace. Updated March 2022 and included with 2021 Annual Reclamation Report.	2023-03-29	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-08	2024-05-07
13	ML/ARD in Annual Reclamation Report	In Annual Reclamation Report - March 31	C.3.(d)	MineSpace	2023-03-29	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-08	2024-05-07
14	Dam Safety Inspection Report	Annually - March 31	Code	MineSpace	2023-03-21	-	-	-	-	-	-	-
15	Dam Safety Review	31-Mar-25	Code	As per approved variance	-	-	-	-	-	-	-	-
16	EPRP Review/Update	Annually	Code	MineSpace	2023-03-21/2023-07-24	-	-	-	-	-	-	-
17	Tailings Geochemistry Monitoring and Assessment Report	31-Mar-24	C.5.(a)	MineSpace	-	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-07	2024-05-08	2024-05-07
18	Post-Closure Monitoring Compliance Report	31-Mar-25	D.1.(b)	Chief Permitting Officer	-	-	-	-	-	-	-	-
19	Updated Reclamation and Closure Plan, including Closure Management Manual	31-Mar-25	D.8	MineSpace	-	-	-	-	-	-	-	-
20	Updated Water Quality Prediction Model	Every 5 years, starting 2025-10-31	C.6.(b)	MineSpace	-	-	-	-	-	-	-	-
21	Dangerous occurrence	report within 4 hours if a loss of life or 16 hours any other dangerous occurrence	Code	to Chief Inspector	-	-	-	-	-	-	-	-
22	Daily ESC inspections during construction period rain events or snow melt.	No submission required.	C.8.(a)	EM on site during rain events and snow melt events. No submittals required. EM Summary included in 2023 Annual Report.	-	-	-	-	-	-	-	-
23	Annual Safety Statistics Summary	Annually - January 31	Code	MineSpace	2023-02-01	-	-	-	-	-	-	-
24	First Aid (medical aid needed)	As Needed	Code	to Health and Safety Inspector	-	-	-	-	-	-	-	-
25	ITRB Annual Activities Summary	Annually - March 31	Code	MineSpace.	2023-03-21	-	-	-	-	-	-	-
26	TSF Registry Update	Annually - March 31	Code	MineSpace	2023-03-31	-	-	-	-	-	-	-



Reference: 412296

October 22, 2024

Aimee Watson, Chair
and Directors
Regional District of Central Kootenay
PO Box 590
Nelson BC V1L 5R4

Sent via email: awatson@rdck.bc.ca

Dear Chair Watson and Directors:

Thank you for your letter of August 20, 2024, addressed to the Minister of Environment and Climate Change Strategy, regarding Extended Producer Responsibility (EPR) programs in the Regional District of Central Kootenay (RDCK).

I would also like to take this opportunity to acknowledge the meeting with the Minister and representatives from the RDCK at the 2024 Union of British Columbia Municipalities (UBCM) Convention. As you know, the annual UBCM Convention offers an important opportunity for local governments to have conversations and outline priorities with the provincial government. These meetings help to inform ministries on issues that matter most to British Columbians. The ministry looks forward to continuing to work closely with you in the future.

I recognize the challenges local governments face in achieving ambitious waste reduction goals and the important contribution from B.C.'s EPR system in achieving those goals. I commend the RDCK and its member municipalities' commitment to waste diversion and recycling. The input that we have received from the RDCK is valuable. I would like to thank you for taking the time to outline the issues you have been experiencing with B.C.'s EPR programs, including producers paying the costs, accessibility in rural areas, EPR program updates, ICI recycling and future regulated products.

...2

EPR Agency Program Operations

I appreciate that you have concerns with several EPR agencies, regarding accessibility, producers paying the costs and updates to service agreements. The role of the ministry is to review and approve EPR plans, and to monitor industry's performance in accordance with the approved plan. The Recycle BC plan is currently with the ministry for review, and proposed changes to the plan are being carefully evaluated.

With respect to contractual negotiations between EPR agencies and their service providers, these generally do not fall under the purview of the ministry. I encourage you to discuss your concerns directly with the respective EPR agencies. If these concerns are not adequately addressed, the RDCK can refer to the dispute resolution procedures outlined in each agency's EPR plan.

Regarding your challenges with accessibility, the ministry is aware of challenges related to recycling in communities that do not have access to recycling services. The ministry also reviews the accessibility of each EPR program as part of an EPR plan submission and expects EPR programs to demonstrate continuous improvement in this area. The ministry strongly encourages local governments and all interested parties to partake and provide feedback in consultations of EPR programs as the feedback is an important part of the package that the ministry reviews in a revised plan.

Industrial, Commercial and Institutional Packaging Waste

As you know, the ministry released a discussion paper on non-residential (Industrial, Commercial, Institutional – ICI) packaging waste followed by a 90-day consultation period that ended July 23, 2024. Thank you for taking the time to submit detailed feedback as part of the process.

Expansion of EPR products

The EPR Five-Year Action Plan (the Action Plan) outlined the ministry's proposal to expand the Recycling Regulation to include mattresses and more moderate risk products, such as automotive products, compressed canisters, consumer products containing batteries, large batteries and medical sharps used at home. Since the publication of the Action Plan, ministry staff have engaged with a range of key partners on proposed regulatory changes to the Recycling Regulation. Should the timeline shift beyond the originally anticipated timeframe of 2024, more information will be provided at that time.

...3

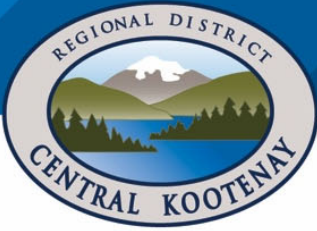
Thank you again for sharing your concerns about EPR programs in B.C.

With best regards,



Kevin Jardine
Deputy Minister

cc: Amy Avila, Acting Assistant Deputy Minister, Environmental Protection Division,
Ministry of Environment and Climate Change Strategy
Tess Rouse, Director, Extended Produce Responsibility, Environmental Policy and
Initiatives Branch, Environmental Protection Division, Ministry of Environment
and Climate Change Strategy
Amy Wilson, Resource Recovery Manager, Regional District of Central Kootenay



August 20, 2024

The Honorable George Heyman
Ministry of Environment and Climate Change Strategy
PO Box 9360 Stn Prov Govt
Victoria, BC V8W 9M2

Dear Minister Heyman:

RE: Extended Producer Responsibility Programs in the RDCK

It is widely acknowledged that British Columbia is a leader in waste management due to high standards of environmental protection and effective waste reduction programs. The *Environmental Management Act*, along with the Recycling Regulation and Hazardous Waste Regulations, guide local government, industry, businesses, and residents towards preserving resources and conserving the environment from negative human impact.

Extended Producer Responsibility (EPR) under the Recycling Regulation sets out the producers' responsibilities for the life cycle of products that they manufacture, distribute and sell. This policy approach, detailed in the MoECCS's Extended Producer Responsibility Five Year Action Plan 2021-2026 (5-year Action Plan), aims to shift the responsibility of end-of-life packaging and products from the general public (taxpayers) to producers and consumers of those products. Province-wide recycling programs and their networks are designed to create more accessibility to the consumers, reduce local and indigenous government's waste management costs, and contribute to higher recycling rates.

While EPR programs have been successful in urban areas of BC, the RDCK and many other rural and remote local governments in the province continue to experience significant gaps and challenges. This letter is intended to share with the Ministry of Environment and Climate Change Strategy (MoECCS) some key, on-going challenges that need to be addressed, including poor service levels, high costs and delayed roll-out of in-demand programs.

Recycle BC Residential Packaging and Paper Products

Recycle BC (RBC) report they service over 99.4% of the BC population, achieving a 79.6% recovery rate in 2023, available for free for residents. However, these statistics don't reflect the situation in the RDCK. The RDCK has been a collection partner since 2020, operating 22 recycling depots including 12 primary depots and 10 supplementary depots (Satellite Depots). This move has brought positive effects to residential

recycling in the RDCK, such as a higher recycling rate, reduced contamination, expansion of accepted Packaging and Paper Products (PPP), and enhanced education and engagement opportunities with residents. However, in 2023 this EPR program cost the RDCK taxpayers approximately \$989,800 after applying RBC incentives, excluding costs for separate Industrial, Commercial and Institutional (ICI) recycling. RBC incentives pay for less than 1/3rd of the annual cost to operate our primary depot system alone, as per requirements set out in RBC's Master Services Agreement and our Statement of Work.

Hauling of program materials from Satellite Depots cost RDCK taxpayers approximately \$150,000. As much as it's the sole responsibility of the collector to operate Satellite Depots, it is essential to operate these supplementary depots in remote communities that have poor accessibility to the primary depots. Further, if Satellite Depots were not established the operational costs of Primary Depots would be higher due to extended hours of operation and more staff to accommodate the additional volume of materials and traffic while recycling rates would drop. RBC's Draft 2022 Program Plan, currently under review by MoECCS, proposes changes to the Community Eligibility Criteria that would have a devastating impact to the program in the RDCK. Under the proposed criteria the RDCK would lose five of its 12 principal depots, serving the communities of Balfour, Crescent Valley, Crawford Bay, Slocan and Edgewood. These locations together collect nearly 400 tonnes of PPP annually. In an effort to minimize costs, the RDCK only accepts Fibres, Containers, and Glass at Satellite Depots and a change from Primary to Satellite would certainly reduce recovery of other PPP materials. If these 5 locations are reassigned as Satellite Depots, hauling costs are estimated to increase by more than \$250,000.

At an annual cost of nearly \$1 Million RDCK taxpayers are heavily and inequitably subsidizing PPP recycling. RBC incentives sufficiently cover the costs for provision of the same level of service to other areas in BC, including many curbside PPP collection programs. The goal of RBC's program should be for producers and consumers to cover the cost of recycling services equitably across the province, not just those in densely populated urban areas. The RDCK asks the Province to be closely engaged in the updates underway for RBC's Statement of Work and Incentives to ensure adequate and equitable PPP collection programs across BC.

Industrial, Commercial and Institutional Recycling

The RDCK appreciates the work MoECCS is undergoing to assess the prevention and management of non-residential (ICI) waste in BC. The recent Discussion Paper identifies admirable proposed outcomes and opportunities, however, management of ICI recyclables is a significant challenge in the RDCK and action in this area is long overdue.

While many RBC collection partners are permitted to accept ICI in their residential programs for a reduction in incentives, this option was inequitably removed for the RDCK. Therefore, once the RDCK joined the RBC program in 2020, the ICI sector in the RDCK was left with limited waste management options at high costs. Small or remote business often have little to no options for recycling services. To assist with these challenges, the RDCK offers the acceptance of Old Corrugated Cardboard only at a limited number of locations (7) across the district through a totally separate recycling program at a cost to taxpayers of over \$200,000 annually.

According to the RDCK's 2023 Waste Composition Study, over 22% of the ICI waste stream was comprised of materials that existing EPR programs have the ability to recycle. Engagement with ICI waste producers in the RDCK indicated that the main reason for this was the lack of affordable and reliable recycling programs. The RDCK requests that EPR management of ICI waste is expedited and the RDCK be considered for piloting a

new ICI sector EPR program, or MoECCS encourages RBC to allow the immediate acceptance of ICI PPP in our RBC collection program as per Option #3 in RBC's Statement of Work.

Household Hazardous Waste

The RDCK covers over 22,000 km² with close to 65,000 residents. RDCK residents and businesses are severely underserved by existing EPR programs. The Nelson Leafs Eco-Depot (Leafs), located in Nelson BC is the only permanent and year-round Eco-Depot that collect products covered under most of the EPR programs in BC, as well as Household Hazardous Waste (HHW) that are NOT covered under any existing EPR programs (Non-EPR HHW). The RDCK subsidizes the Leafs' general operational costs and pays all expenses for the Non-EPR HHW. The RDCK also host residential HHW Round-Up Events in six designated locations annually to capture products covered under EPR programs such as small household appliances, HHW, light and paint related products, motor oils, and Non-EPR HHW. These events are extremely well attended, as residents outside of the Nelson area do not have access to collection facilities and/or have locations that accept limited EPR products. Although HHW Round-Up Events have been effective and large volumes of materials are collected, it is inconvenient for the residents to hold on to the products until the once a year events. The costs associated with subsidizing Nelson Leafs Eco-Depot and hosting annual Round-Up Events are significant to RDCK taxpayers; in 2023, approximately \$283,000 was spent in the RDCK (\$153,000 for the Leafs and \$129,000 for the six events). These costs should be covered by producers and consumers of these products; downloading these costs on general taxpayers is unacceptable.

Currently, only two drop off locations are available for motor oil, antifreeze and oil filters (Interchange Recycling); three locations for household electronics (Encorp and ElectroRecycle); and three locations for paint, paint related materials and HHW materials (Product Care) to service entire RDCK. A number of businesses opted out from collection partnerships with EPR programs due to insufficient incentives and poor service provided by EPR program, which resulted in further reduction of the collection locations available in our communities. There are significant gaps in EPR services in the RDCK and the MoECCS must ensure Product Stewards meet commitments in their EPR Program Plans.

Non-EPR HHW products, such as corrosive liquid/solids, adhesives containing flammable liquids, waste paint/paint related items, mixed fuels and mercury are highly hazardous to the environment if they are disposed of incorrectly. Local governments are left to manage the diversion of these materials, paid by general taxpayers, to keep them out of landfills. These hazardous products should immediately be added to an EPR program to be paid by producers in a concerted effort to keep them out of receiving environments and reduce costs for local governments.

Other New EPR Materials

MoECCS has announced in the 5-year Action Plan that mattresses, compressed gas canisters, and electric vehicle (EV) batteries will be prioritised in EPR initiatives in the next five years. It was a welcomed proposal to local governments as these waste materials are problematic and costly to handle.

Mattresses are bulky, challenging to compact, and difficult to properly recycle. Approximately 95% of the materials used in mattresses are highly recyclable, however recycling options are limited and the costs for shipping and recycling are significant. On average, 100-200 mattresses per month are brought into Ootischenia Landfill (Castlegar) alone in the RDCK. The RDCK's 2023 Waste Composition Study indicated that 6.1% of the total waste stream was bulky objects, including mattresses, couches, chairs and other furniture.

Adding mattresses in the Recycling Regulation and managing them under a newly established EPR program will reduce waste going in landfills and expand the life span of landfills significantly.

Propane tanks, foam cylinders and fire extinguishers are also problematic waste. These items are highly prohibited from general waste streams in landfills and transfer stations. The RDCK accepts propane tanks (1lbs-100lbs) at all transfer stations and Nelson Leafs Eco-Depot takes fire extinguishers for residents for no fee. Again this leaves the cost for management to be covered by taxpayers. If these items are included in the Recycling Regulation and collection services are managed and funded through stewards and consumer's eco-fee, it will offset the costs to the local government, and a more streamlined, province-wide service will enhance the recycling rate of these items.

EPR programs for these materials and other newer products such EV batteries cannot come soon enough and the RDCK is disappointed to hear of delays of their roll out. These EPR programs should be given priority and clear guidance provided for onboarding of the new collection programs so that local governments are not straddled with new costs.

Conclusion

The RDCK's 2023 Waste Composition Study identified that out of the 29,920 annual tonnes landfilled in 2022, a total of 5,720 tonnes could have been diverted through existing recycling and EPR programs. The actions requested in this letter could assist the RDCK in diverting these materials, resulting in a potential reduction of nearly 20% of total landfilled materials.

As mentioned throughout this letter, the goal of EPR programs is to shift the responsibility of end-of-life packaging and products from the general public (taxpayers) to producers and consumers of those products. However, as described above, this is not occurring in the RDCK and our taxpayers are left with a large bill to meet recycling diversion targets. Further, we consistently face a low level or complete lack of EPR program services across our region. This is not equitable with other areas in BC and not meeting the intentions of EPR programs. The RDCK strongly encourages the MoECCS to develop EPR programs that are equitable for all residents across the province and hold EPR programs accountable to their approved program plans.

Thank you for your time and consideration.

Sincerely,



Aimee Watson
RDCK Board Chair

AW/an

Cc: Stuart Horn, Uli Wolf, BC Product Stewardship Council, Stewardship Association of BC