



Committee Report

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Date & Type of Meeting: December 11, 2024; Joint Resource Recovery Committee (JIRC)
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Subject: CHANGES TO MATERIAL MANAGEMENT AND TIPPING FEES
File: 12-6300-20
Electoral Area/Municipality: Entire RDCK

SECTION 1: EXECUTIVE SUMMARY

The purpose of this report is to outline material management and tipping fee updates proposed for 2025 as a result of the System Efficiency Study, as well as to propose options to address the inequities in the current cost recovery structure.

SECTION 2: BACKGROUND/ANALYSIS

The 2021 Resource Recovery Plan (RRP), approved by the Ministry in 2023, established the 10-year strategic plan for the RDCK Resource Recovery System. One of the primary focusses of this plan was *“establishing a cost recovery system that is fair and sustainable, while also incentivizing waste minimization and diversion.”* It was recognized that there would be cost implications to the strategies and actions outlined in the RRP, as these represented significant changes and improvements to the existing Resource Recovery system. Two actions were recommended to address financial implications of increasing costs associated with the strategic direction adopted with the RRP:

- 1) Consider an alternative administrative model for the Resource Recovery System; and,
- 2) Undertake a Resource Recovery system efficiency study and identify options to improve its cost effectiveness and equitability.

The System Efficiency Study, (the study) presented at the JIRC Open Meeting on November 13, 2024, was completed to satisfy the latter of these recommendations. The conclusions of this study reaffirmed the RRP recommendation to consider an alternative administrative model in recommending regionalization of the Resource Recovery system. The tipping fee cost recovery assessment portion of the study indicated that the RDCK’s cost to manage materials varies significantly across sub-regions and exceeds what is being recovered by current tipping fees for most materials. As a result of this assessment and the RDCK’s goal of for a user pay system, GHD Limited (GHD) recommended changing the management and tipping fees for specific materials. GHD’s detailed recommendations were provided as Table 3 of the November 13 JIRC report, which is included as Attachment A for reference.

Recommended Changes in Material Management

GHD recommended changes in material management for the following materials:

Wood

Clean wood and wood waste are currently accepted at a lower tipping fee than mixed waste to incentivize diversion, but the RDCK does not currently have an end market for the wood being received. Wood grinding results in high processing costs, only for this material to be stored at facilities taking up space, posing an increased risk for interface fires, and eventually ending up primarily in the landfill. Many beneficial end uses of wood, such as compost or biochar, are prevented by mixing clean wood with other wood waste. GHD recommended using the classification of clean wood as defined in the Resource Recovery Facilities Regulatory Bylaw No. 2905 (as amended in January 2024; hereafter referred to as Bylaw 2905) and only accepting clean wood at an incentivized tipping fee, as this material can be processed and mixed with dried septage at the landfill facilities that receive septage, used as daily cover around the grizzly plates, road base, and as part of the cover mix used for landfill closure. GHD recommended that wood waste be charged at minimum the tipping fee for mixed waste and should be landfilled instead of processed and stockpiled.

Yard and Garden

Similar to wood waste, yard and garden materials are costly to manage due to processing and hauling, however with the compost facilities operating in Salmo and Creston, there is an end use for this material. Greater than 50% of the yard and garden materials collected are received during the free yard and garden events. Due to low tipping fees and free months, this service is substantially paid for through taxation. GHD recommended re-evaluating the free yard and garden waste months to help increase the tipping fee cost recovery for this material.

Rubble

Rubble is not received in significant amounts across the region. It comprises less than 1% of the total waste stream, varying from 0.4% in the Central sub-region to 2.3% in the East sub-region. Rubble was historically incentivized with a lower tipping fee such that the material could be stockpiled and used at facilities for road building; however the small quantities received make storage and processing of this material costly and inefficient. Due to this, it currently gets disposed as mixed waste (i.e. landfilled). GHD recommended that the tipping fee should reflect this by charging at minimum the rate of mixed waste, and ideally the rate of construction, demolition, renovation (CDR) waste to reflect the additional challenges in managing this bulky material.

Further analysis and Staff recommendations for changes in management of these materials are included in Section 3.1 of this report.

Recommended Changes to Tipping Fees

While tipping fee cost recovery is useful for better understanding and prioritizing material management, it should not be the only factor considered when setting tipping fees. The RRP goals of zero waste and user-pay are inversely correlated in that as the RDCK moves towards zero waste and increases diversion, tipping fee revenue (and therefore the sustainability of a user-pay system) will decrease. As diversion increases, the balance between tipping fees and taxation for cost recovery will need to shift as well; so, while a goal of this report is to establish tipping fee cost recovery goals for 2025, these should be periodically re-evaluated as programs and waste composition in the region change.

The tipping fee updates proposed by GHD were based on a general strategy of achieving 100% tipping fee cost recovery for mixed waste and most other landfilled materials, while keeping the existing higher tipping fees for asbestos (to account for added hazards and administration in handling this material) and CDR materials (to incentivize separation of divertible materials such as scrap metal and clean wood), and raising the tipping fees

for other divertible materials to 75% of the cost to manage mixed waste. As noted in Section 3.1 of the November 13 JRRR report, the proposed tipping fees as a result of this strategy were significantly higher than existing tipping fees and those in neighbouring regional districts for most materials.

To ensure that tipping fees are realistic, don't encourage illegal dumping or out-of-region waste disposal, and to strive for transparency, consistency, and fairness in the cost recovery structure, Staff propose an approach based more on categories of material management rather than simply using the cost to manage mixed waste as a benchmark of which to set the tipping fees for all other materials. Table 2 shows the proposed structure of this approach, outlining the categories of materials and tipping fee cost recovery objectives. The balance not covered by tipping fees would continue to be paid via taxation. Recyclable materials are not included, as to incentivize diversion there are no tipping fees for these materials. Cost recovery for these materials is achieved through a combination of incentives and taxation. Further financial analysis is provided in Section 3.1.

Table 2: Proposed waste categories and tipping fee cost recovery objectives

Category	Materials	Tipping Fee Cost Recovery Objective
Landfilled – simple	mixed waste, biosolids, wood waste	100%
Landfilled – complex	asbestos, CDR, rubble	125%
Diverted	Tires	75%
Diverted (RDCK receives incentives)	scrap metal	25%
Re-purposed	organics (food waste), clean wood, uncontaminated soil, yard & garden	50%
Re-purposed (limited use)	waste soil	75%
Liquid waste	Septage	100%

This strategy aligns with the RDCK's goals to be user-pay by continuing to rely more on tipping fees than taxation for most materials, while moving towards zero waste by continuing to incentivize diversion with lower tipping fees. This approach would still result in tipping fee increases, but slightly lower than those recommended by GHD, in recognition that those recommended values (provided in Table 5 of the November 13 JRRR report) were not likely realistic. These proposed tipping fees, provided in detail in Section 3.1 below, would still put the RDCK at the high end of tipping fees for most materials compared to neighbouring regional districts, but this is logical based on the fact that the RDCK system cost per capita is also the highest of these regional districts. The high cost to manage materials in the RDCK is likely due to many factors, and the implementing changes based on the efficiencies identified in the System Efficiency Study, such as the above changes to material management, changes to facility hours or facility closures, and administrative centralization, should help to bring the cost to manage materials down, and if successful, allow for stabilization or reduction in the reliance on tipping fees.

The above strategy could be implemented regionally, which would be based on the tipping fee cost recovery values for the RDCK as a whole, or the current tipping fee structure could be de-harmonized to allow each sub-region to establish targets based on the tipping fee cost recovery values in that sub-region. Staff advise against de-harmonization as it would be counter-intuitive based on the RDCK's goal to run the Resource Recovery system more efficiently. It would also further the inequities between sub-regions, as residents in the Central sub-region would end up paying both higher tipping fees and taxation for the same level of service as the other sub-regions.

While some of the tipping fee increases based on the recommendations in the study and the development of a cost recovery strategy may be substantial, Staff recommend that any tipping fee changes be implemented

incrementally over a period of several years. As notice has already been sent out regarding up to 10% tipping fee changes, it is recommended that tipping fee changes for 2025 are limited to this, with the exception of materials that are changing classification, but that the strategy be used to guide transparent and consistent planning of subsequent tipping fee increases in future years.

Figure 1 summarizes the current cost recovery structure, as well as the cost to manage mixed waste and current tipping fee for mixed waste, the highest throughput material, for each sub-region and the RDCK as a whole.

Figure 1: Comparison of overall cost recovery and cost to manage mixed waste, by sub-region and for the RDCK as a whole

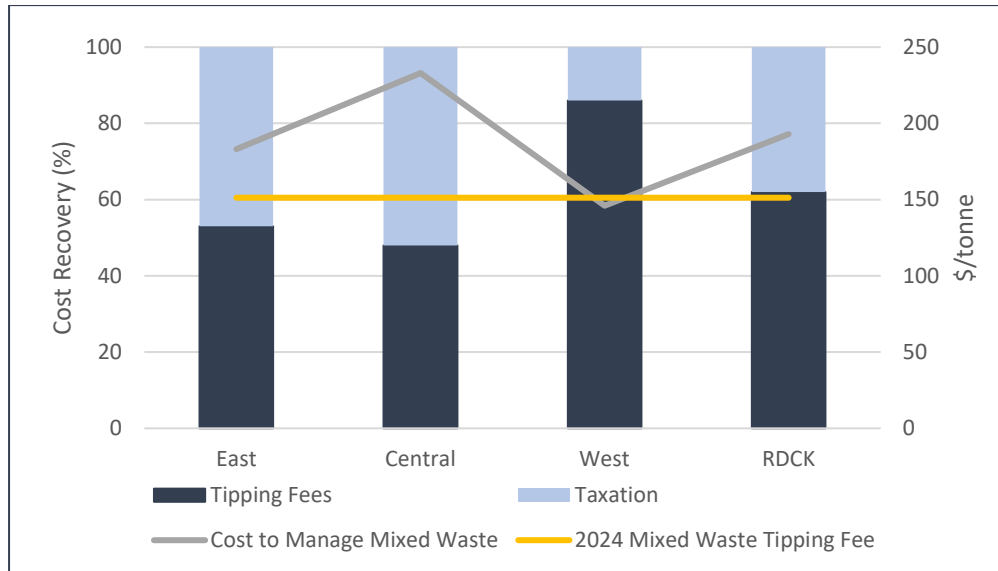


Figure 1 highlights the variability in cost recovery structure across the three sub-regions. There are several factors that influence this variability, such as the geographic location of waste disposal infrastructure, population of service area, the presence of scales at facilities, composition of the waste stream, and the administrative structure in which tipping fee revenue stays within the sub-region it was collected, not necessarily the sub-region where the waste was generated. As the RDCK regionalizes its waste management facilities and strives to meet the regulatory requirements in the *Landfill Criteria for Municipal Solid Waste* (BC Ministry of Environment, 2016) and proposed *Regulations Respecting the Reduction in the Release of Methane (Waste Sector)* (Government of Canada, 2024), it is anticipated that costs to manage the system are going to substantially increase due to more stringent requirements for infrastructure such as engineered liners, and landfill gas and leachate management systems. As waste management becomes more complex and costly, a regionalized administrative structure would maximize both financial efficiency and equitability for RDCK residents.

To ensure that the cost recovery strategy is fair and sustainable, Staff have developed the following options to promote administrative efficiency and address the sub-regional inequities in the current cost recovery structure:

- 1) Regionalize all Resource Recovery services (waste, compost, recycling);
- 2) Regionalize all Resource Recovery services (waste, compost, recycling), but create a new service for the management of HB Tailings Storage Facility based on the existing service area;
- 3) Regionalize only select Resource Recovery services (recycling, compost, septage) and leave the waste services as sub-regional, but implement a transfer of tipping fee revenue between sub-

regions, similar to the current transfer of Recycle BC incentives between sub-regions, that would equalize the taxation levels across sub-regions.

Continuing with the status quo would mean choosing to not address the sub-regional inequities and inefficiencies identified in the Study. All options would require some initial administrative time to implement. It is anticipated that Options 1 and 3 would best address the sub-regional inequities, while Options 1 and 2 would result in the greatest administrative efficiencies once implemented. Further analysis would be required to try to quantify this. Staff recommend Option 1 as this option best addresses both the sub-regional inequities and administrative inefficiencies, but are presenting these for consideration only at this point in time.

As requested at the November 13, 2024 JRRC meeting, Staff would like to meet with the JRRC members in a workshop format in January 2025. The intention of this workshop is to allow for more in depth discussion regarding the above options for addressing the sub-regional inequities and administrative inefficiencies of the current system identified by the System Efficiency Study, as well as around other outcomes and recommendations of the Study. This workshop will not be a repeat of what was presented in November, but an opportunity to provide more clarity on the results of the Study based on questions submitted by Directors, as well as to gather JRRC input on which recommendations from the study should be prioritized in Staff workplans for implementation or further analysis. Staff will reach out to Directors in advance of the workshop for questions to be submitted in writing and will use these questions to guide the workshop.

Staff recommend implementing the material management changes described in this report for wood, yard and garden waste, and rubble in 2025. Staff also recommend implementing incremental annual tipping fee increases, starting in 2025, to meet the cost recovery objectives of the tipping fee cost recovery strategy outlined in this report.

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 checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Changes in Material Management

Cost analyses and recommendations related to changes in management or classification of wood, yard and garden, and rubble are provided below.

Wood

GHD recommended to separate clean wood from wood waste, as per the definitions of these materials in Bylaw 2905, to continue the current management practices for clean wood, and to consider wood waste under the category of mixed waste as there is currently no viable end use for separated wood waste. This change is expected to result in significantly decreased processing costs, increased tipping fee revenue, as well as some smaller increases to hauling costs. Table 3 outlines the estimated financial implications that could be expected as a result of changing the Bylaw such that wood waste is accepted as mixed waste. This does not include preserved wood or wood products that are mixed with other construction materials, which is considered CDR under the Bylaw, and shall remain as such.

Table 3: Estimated financial impacts of changing the management of wood materials

Sub-Region	Estimated Annual Values			
	Reduction in Wood Grinding	Increase in Hauling	Increase in Tipping Fee Revenue ¹	Total Impact on Cost to Manage Wood Waste
EAST	-\$44,897	\$1,510	-\$41,180	-\$84,566
CENTRAL	-\$75,770	\$7,529	-\$62,205	-\$130,446
WEST	-\$48,339	\$13,160	-\$59,958	-\$95,137
RDCK	-\$169,006	\$22,199	-\$163,343	-\$310,149

¹ Based on 2024 tipping fee for mixed waste

There is insufficient data to estimate the proportion of the wood tonnages that is clean versus wood waste as, while the Bylaw differentiates these materials, it is not currently differentiated in the scale data system. For the calculation in the above evaluation, it was estimated that clean wood would make up 10% and waste wood would be 90% of the total wood tonnage. As wood materials have been historically stockpiled at many sites and material type is not tracked on waste hauling invoices, there is limited data to accurately determine hauling costs specifically for wood. The above increase in hauling values are considered best estimates based on the data that was available.

Based on the predicted cost savings and until a beneficial end use for wood waste can be determined, Staff agree with GHD’s recommendation to treat materials that fall under the definition of Wood Waste in Bylaw 2905 as Mixed Waste, by increasing the tipping fee to match that for mixed waste and landfilling this material. Materials that fall under the Bylaw definition of Clean Wood Waste shall continue to be separated and ground, as these materials can be used in other facility operations.

Yard and Garden

GHD recommended re-evaluating the cost recovery strategy for the yard and garden waste program, specifically the biannual free disposal months. GHD estimated that the free months for yard and garden waste costs the RDCK almost \$57,000 per year in lost tipping fee revenues based on the 2024 tipping fee. Table 4 below summarizes this estimated potential revenue, as well as the estimated annual cost of the yard and garden diversion program and average annual revenue from tipping fees by sub-region, based on the average annual tonnage collected during the free months from 2020 to 2022, and on 2024 tipping fees.

Table 4: Estimated yard & garden program costs, revenues, and potential revenue due to bi-annual free disposal months

Sub-Region	Estimated Annual Cost to Manage Yard & Garden Materials (\$)	Average Annual Tipping Fee Revenue (\$)	Average Annual Tonnage Collected at Free Events (tonnes)	Estimated Potential Revenue from Bi-annual Free Disposal Months (\$)
EAST	135,884	18,979	497	30,083
CENTRAL	253,832	35,373	359	21,740
WEST	53,059	7,821	85	5,121
RDCK	442,774	62,173	941	56,944

The potential revenue estimates are likely an overestimate as they do not account for the fact that if free disposal months were not to occur, many residents would likely burn a portion of these materials, stockpile them on their property, or just reduce clearing of brush in general. This would result in decreased tonnages in

these months and therefore decrease this estimated potential revenue, while increasing community hazards such as fire risk and air pollution which are difficult to quantify.

Additionally, yard and garden waste materials are used as part of the composting process at Central and Creston landfills. As food waste collection increases, it is expected that the compost facilities should be able to keep up with the yard and garden waste collected from around the RDCK. Without this feedstock, the RDCK would likely have to source and potentially purchase material elsewhere for compost production. The cost of this was not determined as part of this analysis.

Due to the multi-faceted benefits of this program, historical tipping fees have been set low to incentivize diversion and FireSmart initiatives, and protect air quality. The System Efficiency Study indicated that the tipping fee cost recovery for yard and garden waste was 17-18% in all three sub-regions, meaning that this program is currently heavily subsidized with taxation. While tipping fee increases, as discussed later in this section, are recommended for yard and garden waste to achieve 50% cost recovery as proposed in the tipping fee cost recovery objectives, Staff recommend continuing the biannual free months for yard and garden waste collection, at minimum until proposed tipping fee increases and further analysis can be completed.

In conducting this analysis, a significant discrepancy was identified between the actual and expected tipping fee revenue for this material. This is likely due to the fact that most yard and garden materials are not charged by weight or volume, but by unit (“load”), and indicates that the unit rates are not sufficiently aligned with the by weight tipping fee. Staff plan to conduct further analysis to address the variation in weight, volume, and unit tipping fees for materials where this discrepancy in tipping fee revenue was observed to exist, and will provide further material management or tipping fee recommendations based on the outcome of this analysis.

Rubble

As noted above, rubble comprises a very small proportion of the overall waste stream in the RDCK and it is currently landfilled, not diverted. Table 5 summarizes the current cost recovery and the anticipated changes to cost recovery and additional revenue if rubble were to be charged at the rate for CDR or mixed waste (MW), based on the 2024 tipping fees, as recommended by GHD.

Table 5: Changes to cost recovery and estimated additional revenue by changing the tipping fee classification of rubble

Sub-Region	STATUS QUO		OPTION 1: Change to CDR rate			OPTION 2: Change to MW rate		
	Rubble Tipping Fee (\$)	Cost Recovery (%)	CDR Tipping Fee (\$)	Cost Recovery (%)	Additional Revenue (\$)*	MW Tipping Fee (\$)	Cost Recovery (%)	Additional Revenue (\$)
EAST	53.25	17	242	132	48,320	151.25	83	25,088
CENTRAL	53.25	25	242	104	13,024	151.25	65	6,762
WEST	53.25	37	242	166	41,903	151.25	104	21,756
RDCK	53.25	23	242	125	103,246	151.25	78	53,606

It should be noted that the additional revenue shown in the table is likely an overestimate, as higher rates may encourage rubble generators to seek out alternative disposal options, such as businesses that process aggregates, several of which exist in the RDCK and some of whom accept rubble for free. Based on this, the change in the tipping fee for rubble may not significantly increase the cost recovery associated with managing this material in-house, but rather shift management of this material from the RDCK to external stakeholders capable of not only diverting it but upcycling it into a usable material.

GHD recommended that rubble be managed and charged as CDR waste to reflect the additional challenges associated with landfilling larger materials, or at minimum the fee for mixed waste. While treating rubble as CDR is logical and ideal based on cost recovery, Staff recommend that initially rubble be managed and charged at the rate for mixed waste, with an eventual goal of changing this to CDR once viable diversion end uses for this material are established or confirmed. To determine a viable end use and to discourage illegal dumping of this material due to rate increases, Staff would plan to engage with aggregate processors across the RDCK to determine if these businesses have sufficient capacity and/or interest in this material.

Changes to Tipping Fees

The System Efficiency Study identified that the cost to manage most materials exceeds the revenue recovered by the respective 2024 tipping fees and recommended increasing tipping fees for selected materials. Staff incorporated GHD's recommended changes in material classification, the tipping fee cost recovery values from the study, and the objective tipping fee cost recovery percentages in the strategy outlined in Table 2 above to calculate target tipping fees. For efficiency' sake due to time limitations for this report, these values assume a regional approach (i.e. keeping the tipping fees harmonized across sub-regions). If Director's prefer to de-harmonize tipping fees, further analysis can be completed and presented at a later date. Due to the magnitude of some of the increases, Staff propose these increases be implemented incrementally over a three or five year period. Tables 6 and 7 outline the proposed tipping fees changes and implementation schedule over a three and five year period, respectively. Only materials where changes to tipping fees are proposed are included.

Table 6: Proposed tipping fee increases on 3-year schedule

Material	2024 Tipping Fee (\$/tonne)	Target Tipping Fee (\$/tonne)	2025		2026		2027	
			% change	Tipping Fee (\$/tonne)	% change	Tipping Fee (\$/tonne)	% change	Tipping Fee (\$/tonne)
Mixed waste	\$151.25	\$193	10%	\$166	8%	\$180	7.5%	\$193
Biosolids	\$60.50	\$88	10%	\$67	15%	\$77	15%	\$88
Rubble ¹	\$53.25	\$193	262%	\$166	8%	\$180	7.5%	\$193
Soils (uncontaminated)	\$21.75	\$44	30%	\$28	25%	\$35	25%	\$44
Soils (waste)	\$48.50	\$66	36%	\$66	-	\$66	-	\$66
Wood (clean)	\$78.75	\$100	10%	\$87	7.5%	\$93	7.5%	\$100
Wood (waste) ¹	\$78.75	\$193	145%	\$166	8%	\$180	7.5%	\$193
Y&G	\$60.50	\$82	10%	\$67	10%	\$74	10%	\$82

¹ Significant tipping fee increase is due to change in material classification as this material is recommended to be classified as mixed waste going forward.

Table 7: Proposed tipping fee increases on 5-year schedule

Material	2024 Tipping Fee (\$/tonne)	Target Tipping Fee (\$/tonne)	2025		2026		2027		2028		2029	
			% change	Tipping Fee (\$/tonne)	% change	Tipping Fee (\$/tonne)	% change	Tipping Fee (\$/tonne)	% change	Tipping Fee (\$/tonne)	% change	Tipping Fee (\$/tonne)
Mixed waste	\$151.25	\$193	10%	\$166	4%	\$173	4%	\$180	4%	\$187	3%	\$193
Biosolids	\$60.50	\$88	10%	\$67	8%	\$72	7%	\$77	7%	\$82	7%	\$88
Rubble ¹	\$53.25	\$193	262%	\$166	4%	\$173	4%	\$180	4%	\$187	3%	\$193
Soils (uncontaminated)	\$21.75	\$44	15%	\$25	15%	\$29	15%	\$33	15%	\$38	15%	\$44
Soils (waste)	\$48.50	\$66	10%	\$53	7%	\$57	5%	\$60	5%	\$63	5%	\$66
Wood (clean)	\$78.75	\$100	10%	\$87	4%	\$90	4%	\$94	4%	\$97	3%	\$100
Wood (waste) ¹	\$78.75	\$193	145%	\$166	4%	\$173	4%	\$180	4%	\$187	3%	\$193
Y&G	\$60.50	\$82	10%	\$67	6%	\$71	5%	\$74	5%	\$78	5%	\$82

¹ Significant tipping fee increase is due to change in material classification as this material is recommended to be classified as mixed waste going forward.

Tipping fee changes in the tables above are by weight, but would be carried through to other per unit tipping fees using conversion values once additional analysis of these conversions is completed. Conversion values for bagged waste were updated in 2024 as a result of the 2023 Waste Composition Study, but as mentioned in the yard and garden section above, Staff will re-evaluate the conversion values for volume and unit tipping fees in the coming year and provide additional recommendations as appropriate.

Changes to tipping fees were not recommended for the following materials:

- Organics: As recommended by GHD, organics were not included in proposed tipping fee increases to give the cost to manage this material time to stabilize.
- Septage: Tipping fee increases are already set for this material in 2025 and management processes (and therefore costs to manage this material) are in flux.
- Tires: Based on the results of the System Efficiency Study, a tipping fee reduction for this material could be warranted; however Staff recommend keeping the existing rate to direct this material to extended producer responsibility (EPR) collection partners in the region and away from RDCK sites. Tire Stewardship BC identifies twenty (20) return to retailer locations for recycling tires in the RDCK.
- Asbestos, CDR, land clearing waste, and scrap metal: The current tipping fees for these materials satisfied the proposed tipping fee cost recovery structure.

Table 8 summarizes the estimated increase in annual revenue anticipated as a result of the proposed tipping fee changes once fully implemented (2027 or 2029, depending on the implementation schedule selected).

Table 8: Tipping fee objectives and anticipated impact on tipping fee revenue

Material	2024 Tipping Fee (\$/tonne)	Target Tipping Fee (\$/tonne)	Impact on Tipping Fee Revenue		
			EAST	CENTRAL	WEST
Mixed waste	\$151.25	\$193	\$275,258	\$397,251	\$488,767
Biosolids	\$60.50	\$88	-	-	\$6,573
Rubble	\$53.25	\$193	\$35,776	\$9,643	\$31,025
Soils (uncontaminated) ¹	\$21.75	\$44	\$7,498	-	\$46,102
Soils (waste) ¹	\$48.50	\$66	\$10,938	-	\$67,358
Wood (clean) ²	\$78.75	\$100	\$1,339	\$2,019	\$1,955
Wood (waste) ²	\$78.75	\$193	\$64,894	\$98,027	\$94,485
Y&G ³	\$60.50	\$82	\$10,965	\$25,155	\$4,967
TOTALS			\$406,667	\$532,094	\$741,230

¹ 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%.

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. It was estimated that clean wood would make up 10% and waste wood would be 90% of the total wood waste.

³ Based on average tonnage of paid yard and garden waste (assumes continuation of bi-annual free yard & garden collection months).

These estimates are based on the average annual tonnages from the study (2020-2022) and do not account for fluctuations in tonnage that may occur due to changes in tipping fees and/or material management. Assuming the cost to manage these materials is relatively stable, the additional revenue from increasing tipping fees should reduce reliance on taxation required in the waste services.

As discussed in the November 13 JRRC report and in Section 2 of this report, while the above 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 further increase the discrepancies in taxation levels shown in Figure 1 above.

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

Changes to tipping fees and material classification 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 based on the options presented in Section 2 of this report. Any changes related to allocation of expenses and tipping fees revenues 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, its recommendations, and this additional evaluation focus on efficiency primarily from a financial perspective; however decisions regarding how to implement the recommendations need to also take into account the related environmental impacts which are much more difficult to quantify. Due to the technical analysis required, the following environmental considerations are presented for consideration but were not able to be quantified as part of this report.

The recommendations to landfill non-clean wood waste and rubble are not expected to have significant environmental impacts, as despite current tipping fees indicating an intention to divert these materials, both are destined for the landfill based on current practices.

For rubble, the recommended change is primarily administrative to ensure that the tipping fee reflects the cost to manage this material, as it is currently disposed at the landfill alongside mixed waste. As mentioned in the section above, to discourage illegal dumping of this material due to rate increases, Staff would plan to engage with aggregate processors across the RDCK to determine if these businesses have sufficient capacity and/or interest in this material. If they are a viable alternative option for rubble disposal, this would reduce greenhouse gas (GHG) emissions associated with hauling and landfill disposal of this material.

For wood waste, this change in management will reduce GHG emissions associated with wood grinding and reduce the on-site fire hazard from storage of chipped materials at facilities. If this material were truly being diverted from landfills currently, as intended by the reduced tipping fee, then this change in management would 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. However, since there is not currently a viable end-use for this material, current practices of grinding and stockpiling wood waste have simply delayed its hauling and disposal, and the associated environmental impacts. The environmental benefit of reduced GHG emissions related to grinding the material

would likely be offset by the extra hauling required to account for the additional volume of the unprocessed wood waste.

The purpose of the biannual free yard and garden months is to incentivize FireSmart and air quality initiatives. Elimination of this program could result in increased community fire risk or reductions in local air quality due to increased burning of these materials.

Changes to practices in material acceptance or increases to tipping fees could also result in increases in illegal dumping or reductions in diversion of materials from the landfill.

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. While raising tipping fees should decrease the overall reliance on taxation in each sub-region, the discrepancies between sub-regions will still exist and would likely widen. Regionalization is an option that would improve equitability in taxation across the Resource Recovery system.

3.5 Economic Considerations:

None 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. The public will need to be notified of any additional changes to material acceptance practices and tipping fees that are recommended for implementation in 2025 as soon as possible once any amendments to Bylaw 2905 are approved.

3.7 Staffing/Departmental Workplace Considerations:

The Environmental Coordinator has drafted an amendment to Bylaw No. 2905 to increase the tipping fee for mixed waste in early 2025, and will incorporate additional increases based on the outcome of this report. The Resource Recovery Operations Coordinator and Field Supervisors would oversee Staff training related to any changes in material management and implementation of new tipping fees.

The Resource Recovery Projects Advisor, with oversight and support from the Resource Recovery Manager and General Manager of Environmental Services, is planning to facilitate a workshop with Directors on the outcomes and recommendations from the System Efficiency Study.

3.8 Board Strategic Plan/Priorities Considerations:

The changes to tipping fees and material management 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:

OPTION 1: That the Board authorize Staff to draft an amendment to Bylaw No. 2905 to incorporate rubble and wood waste under the definition and fee schedule for mixed waste.

Pros:

- Ensures that the tipping fees more accurately reflect the operational processes and associated cost to manage these materials
- Removes a financial incentive, intended to incentivize diversion, for materials that are not diverted as they do not currently have a viable end use and as a result are being stockpiled and/or disposed in the landfill
- Would reduce the fire risk associated with large stockpiles of wood waste at facilities across the RDCK
- Would reduce the cost to manage wood waste by reducing the need for grinding of this material

Cons:

- Increased cost to generators of these materials
- Significant increases to tipping fees for rubble and wood waste may lead to increased illegal dumping of these materials

OPTION 2: That the Board does not authorize Staff to alter the definition or classification of rubble and wood waste categories in Bylaw No. 2905.

Pros:

- Does not result in any increase to the tipping fee for generators of these materials

Cons:

- Existing tipping fee does not accurately reflect the operational processes and associated cost to manage these materials and provides a financial incentive intended for diversion, even though these materials are not being diverted from the landfill, resulting in more taxation required to subsidize the management of these materials
- Does not address the fire hazard of stockpiling wood waste at RDCK facilities
- Does not reduce the cost associated with grinding wood waste

RECOMMENDATION 2:

OPTION 1: That the Board authorize Staff to draft an amendment to Bylaw No. 2905 updating tipping fees to align with the proposed Tipping Fee Cost Recovery Objectives.

Pros:

- Increases the tipping fee cost recovery for management of several waste materials in alignment with the RRP's goal of a user pay system
- Provides a consistent and transparent structure for the establishment of tipping fees based on cost recovery

Cons:

- Increases the cost of disposal for generators of materials that have tipping fee increases proposed

OPTION 2: That the Board authorize Staff to draft an amendment to Bylaw No. 2905 updating only the tipping fee for mixed waste in 2025.

Pros:

- Minimal increases to tipping fees for waste generators

Cons:

- Does not address the gaps in cost recovery identified in the System Efficiency Study, resulting in heavier reliance on taxation as opposed to the user pay goal as set in the RRP

SECTION 5: RECOMMENDATIONS

RECOMMENDATION 1:

That the Board authorize Staff to draft an amendment to Bylaw No. 2905 to incorporate rubble and wood waste under the definition and fee schedule for mixed waste.

RECOMMENDATION 2:

That the Board authorize Staff to draft an amendment to Bylaw No. 2905 updating tipping fees to align with the proposed Tipping Fee Cost Recovery Objectives.

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 – Committee Report: Results of the Resource Recovery System Efficiency Study (presented to the JRRC on November 13, 2024)