Metro Vancouver
2025 Construction and Demolition Waste Composition Study



PRESENTED TO
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EXECUTIVE SUMMARY

Tetra Tech Canada Inc. (Tetra Tech) was retained by Metro Vancouver to perform the 2025 Construction and Demolition (C&D) waste composition study. The objectives of the study were to visually characterize the C&D materials disposed during the study period to estimate the regional composition of the waste disposed by the C&D sector in Metro Vancouver. Samples were evaluated at the Vancouver Landfill in Delta, British Columbia (BC) and Ecowaste Landfill in Richmond, BC over two weeks in October 2025. Samples were characterized into two broad categories: C&D Processing Residuals and Direct Haul C&D Waste.

In 2024, approximately 320,000 tonnes of C&D waste was disposed in Metro Vancouver, which is approximately one-quarter of the total solid waste disposed in the region. The results presented in this study are a snapshot of the C&D waste sector in 2025. Disposed material quantities for 2025 are based on the most recent available data in 2024, while the waste composition study itself was conducted in 2025.

Results – Overall Regional Average

Figure E-1 illustrates the average composition of the waste disposed from the C&D sector characterized during the study. By primary category, the largest components were wood (54%), plastics (14%), and metals (7%).

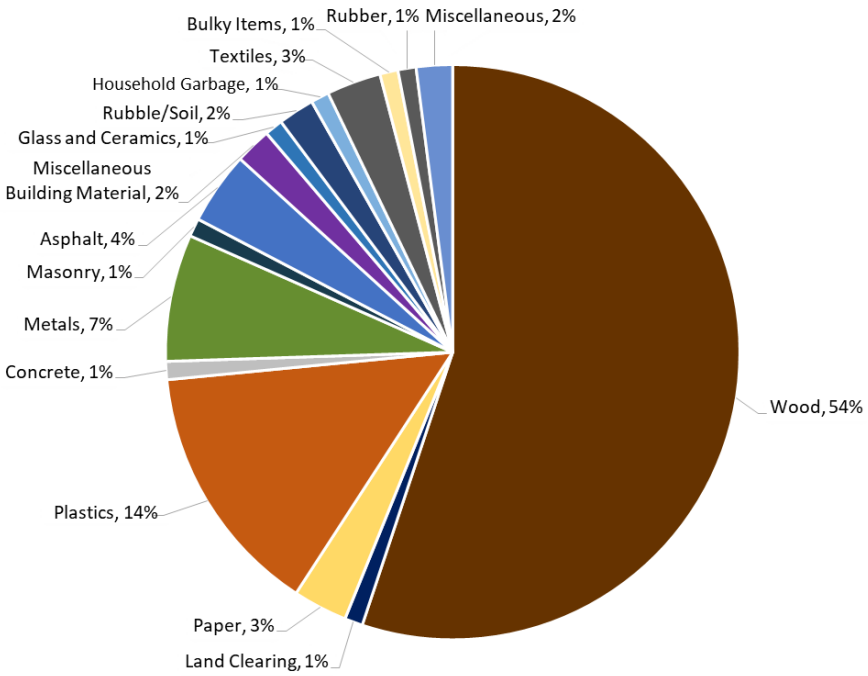
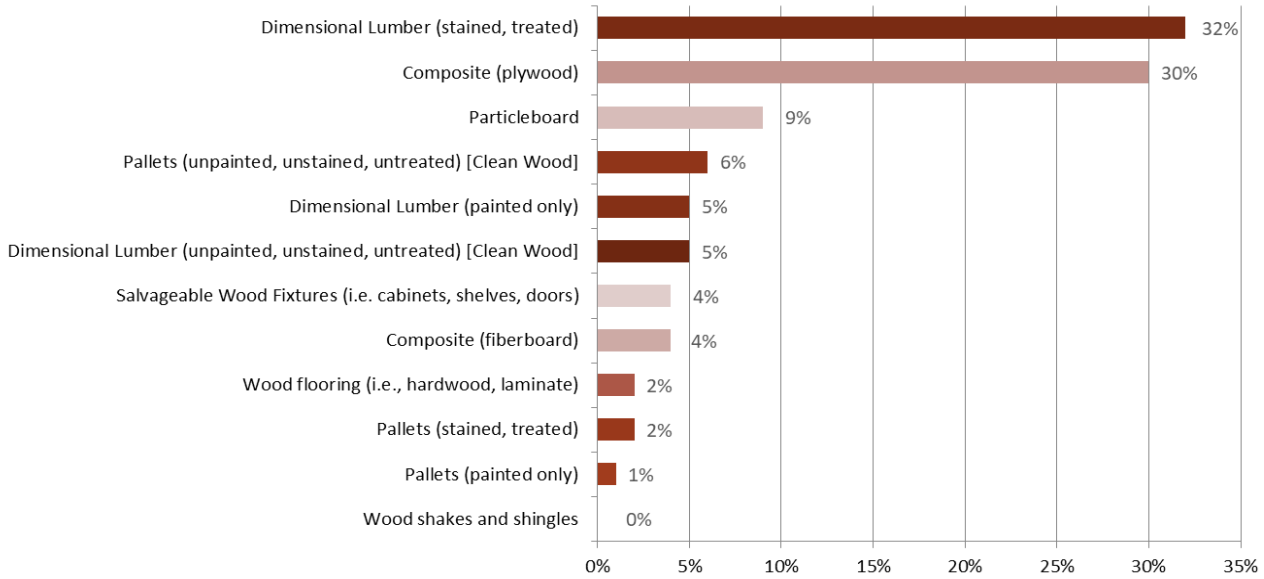


Figure E-1: Average Regional Composition of the C&D Sector

Figure E-2 summarizes the average composition of the wood category.



Percentages shown are relative to total wood waste only. Wood comprises 54% of the sector composition by weight.
Percentages were rounded to the nearest whole number and may not add up to 100%.

Figure E-2: Average Regional Composition of the Wood Category

Summary of Findings

The following are observed trends based on the results for this C&D waste composition study:

- Compared to previous studies, the regional composition of the C&D waste disposed has changed in the following manner:
  - A similar quantity of wood (174,241 tonnes in 2025 versus 177,011 tonnes in 2022);
  - More plastics (44,957 tonnes in 2025 versus 35,674 tonnes in 2022); and
  - More metal (21,887 tonnes in 2025 versus 13,044 tonnes in 2022).
- The regional C&D waste per capita disposal rate shows a decreasing trend from 2018 to 2025. Wood comprised 54% of the C&D waste composition study. Of the wood primary category, the top two categories were stained and treated dimensional lumber (32%) and composite wood – plywood (30%). Disposed wood decreased by 2,770 tonnes between 2022 and 2025, and the most significant decrease in wood occurred in salvageable wood fixtures, which declined by 11,004 tonnes from 2022 to 2025.

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ACRONYMS & ABBREVIATIONS

Acronyms/Abbreviations	Definition
BC	British Columbia
C&D	Construction and Demolition
Direct Haul	Direct Haul Construction and Demolition Waste
kg	Kilograms
Tetra Tech	Tetra Tech Canada Inc.

LIMITATIONS OF REPORT

This report and its contents are intended for the sole use of Metro Vancouver and their agents. Tetra Tech Canada Inc. (Tetra Tech) does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Metro Vancouver, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this document is subject to the Limitations on the Use of this Document attached in the Appendix or Contractual Terms and Conditions executed by both parties.

NOTE TO THE READER

The samples collected and characterized for this study are “snapshots” in time, meaning the reported quantities are estimates and only represent the conditions for the period in which they were collected. Annual variability, weather, and other factors can affect the amount and composition of waste and recyclables generated by the various sectors at any given time. Even with combined educational, regulatory, and financial initiatives, the reader should not assume that it is necessarily easy, practical, or economical to recover a substantial portion of a disposed material from a mixed waste stream or at its source.

1.0 INTRODUCTION

Tetra Tech Canada Inc. (Tetra Tech) was retained by Metro Vancouver to perform the 2025 Construction and Demolition (C&D) waste characterization study. Sampling was completed at the Vancouver Landfill in Delta, British Columbia (BC) and Ecowaste Landfill in Richmond, BC.

The objectives of this study include the following:

- To visually characterize the C&D materials arriving at Vancouver Landfill and Ecowaste Landfill from various waste sectors, including the following:
  - **C&D Processing Residuals**: C&D waste consolidated and sorted at licensed private C&D transfer stations and transported to Vancouver Landfill or Ecowaste Landfill for disposal. Materials appropriate for recycling or recovery are often removed from these loads prior to being transported to Vancouver Landfill or Ecowaste Landfill.
  - **Direct Haul C&D Waste (Direct Haul)**: C&D waste from activities including residential demolition, residential construction, land clearing, manufacturing, and other sources (including mixed-source loads) that are directly hauled to Vancouver Landfill or Ecowaste Landfill for disposal.
- To provide current data on the C&D waste sector and to develop a better understanding of the composition and disposal rates of C&D waste within Metro Vancouver.
- To calculate the average regional composition for the C&D waste generated in Metro Vancouver, based on the composition data collected at Vancouver Landfill and Ecowaste Landfill, as well as tonnages disposed at Vancouver Landfill, Ecowaste Landfill, and Out-of-Region facilities. Out-of-Region refers to C&D waste that is disposed outside the geographical boundaries of Metro Vancouver.

1.1 Background

Metro Vancouver encompasses BC's Lower Mainland region, providing essential solid waste management services and planning for approximately three million people across 21 municipalities, one electoral area, and one treaty First Nation.

In 2024, approximately 320,000 tonnes of C&D waste was disposed in Metro Vancouver, which is approximately one-quarter of the waste disposed in the region. To assist contractors, project managers, and residents with C&D waste disposal resources, Metro Vancouver created a C&D Waste Toolkit. The online toolkit helps identify alternatives to traditional demolition, identifies ways to reuse and recycle building materials, provides resources for the management of hazardous materials commonly found in construction sites, and helps find C&D facilities, recycling depots, and service providers. Waste material generated from C&D activities that cannot be recovered or recycled is disposed at Vancouver Landfill, Ecowaste Landfill, and Out-of-Region facilities, and is often first managed at licensed private C&D transfer stations, which recycle and recover some materials.

Metro Vancouver has previously completed four C&D waste composition studies, in 2011, 2015, 2018, and 2022. The sampling plan for the 2025 study was based on previous studies and developed in conjunction with Metro Vancouver.

1.2 Samples Characterized

The study involved the visual characterization of loads with predominantly C&D materials received at Vancouver Landfill and Ecowaste Landfill. The study was conducted during the same week at the two locations. Table 1-1

summarizes the distribution of samples and sample tonnages at Vancouver Landfill and Ecowaste Landfill. Table 1-2 summarizes the breakdown of the samples into the types of C&D activities related to each load. There was a limited number of C&D loads disposing of their waste at Vancouver Landfill during the study period in 2025. As a result, an increased number of samples was characterized at Ecowaste Landfill.

Table 1-1: Sample Distribution by Location

Location	Sampling Dates	Number of Samples	Total Weight of Loads Sampled (tonnes)	Average Weight of Loads Sampled (tonnes)
Vancouver Landfill	October 7 to October 10, 2025	13	200	15
Ecowaste Landfill	October 6 to October 11, 2025	122	667	5
	Total/Average	**135**	**867**	**6**

Table 1-2: Sample Distribution by Sector and Activity Source

Sector	C&D Activity Source	Number of Samples			Net Weight (tonnes)
		Vancouver Landfill	Ecowaste Landfill	Total	
C&D Processing Residuals	-	8	18	26	344
Direct Haul	Residential Demolition	5	66	71	412
	Residential Construction	0	25	25	65
	Land Clearing	0	6	6	18
	Manufacturing	0	2	2	3
	Other	0	5	5	26
	Total	**13**	**122**	**135**	**867**

Notes:
Manufacturing includes C&D materials generated within the manufacturing sector.
Net weights are rounded to the nearest whole number and may not add to the total weight.

Table 1-3 summarizes the total amount of C&D waste disposed at Vancouver Landfill, Ecowaste Landfill, and Out-of-Region facilities in 2024. The tonnage data were provided by Metro Vancouver. It should be noted that loads were not characterized at Out-of-Region facilities; however, tonnages of C&D waste disposed at Out-of-Region facilities were included in the calculation of the overall regional average composition of C&D materials disposed in Metro Vancouver (see Section 2.4 for details).

Table 1-3: Annual Tonnages for C&D Waste Disposed (2024)

Sector	Vancouver Landfill	Ecowaste	Out-of-Region	Total
C&D Processing Residuals	58,526	88,740	23,696	**170,962**
Direct Haul	21,069	128,099	-	**149,168**
Total	**79,595**	**216,839**	**23,696**	**320,130**

Note:
Tonnages were rounded to the nearest whole number and may not add to the total tonnage.

2.0 METHODOLOGY AND WORK PLAN

This section outlines the methodology employed to characterize the selected samples. Visual estimates were used to characterize samples. Tetra Tech's methodology for undertaking visual estimations is based on CalRecycle's *Method of Visual Characterization of Disposed Waste from Construction and Demolition Activities*[1].

Samples were characterized by Tetra Tech staff who were trained on proper safety and visual estimate procedures prior to conducting any fieldwork. Personal protective equipment, such as safety glasses, gloves, steel-toe boots, and high-visibility vests, was worn by staff at all times in accordance with Tetra Tech's Health and Safety Plan. At each facility (i.e., Vancouver Landfill and Ecowaste Landfill), Tetra Tech's sorting staff completed a site-specific safety orientation with site staff. Safety tailgate meetings were also conducted daily at the beginning of each day to emphasize key concerns, including how to handle material hazards such as sharp and hazardous materials and how to work around large moving equipment.

2.1 Sampling Plan and Approach

Tetra Tech worked closely with Metro Vancouver to develop a sampling plan to capture a snapshot of the waste disposed of by the C&D sector. Samples were characterized at Vancouver Landfill and Ecowaste Landfill as these facilities receive the majority of the C&D waste that is generated in the region and would be most representative of the Metro Vancouver C&D waste sector.

Due to the low traffic seen on site at Vancouver Landfill, every load with C&D materials that arrived on site was selected for sample characterization. At Ecowaste Landfill, up to 10 loads were selected for sample characterization at a time, with an effort made to capture a representative proportion of trucks and companies.

Once loads were selected, field staff would confirm with the driver of the truck the type of C&D activity related to their load. Field staff also recorded the date, time, truck identification (e.g., hauler, vehicle license plate), municipality of origin, truck volume, and estimated percent fullness of the vehicle.

While tipping their loads, drivers drove forward to ensure the C&D material was spread out. In some instances, large loads were further spread out by a facility-operated loader or excavator for better characterization.

2.2 Visual Estimates

The visual estimation methodology was completed by staff using the following steps:

- Measure the length, width, and height of the load (pile) to estimate the volume.
  - Length and width were estimated by counting the number of paces to walk along the length and width of the pile, then converting the number of paces to metres.
  - Height was visually estimated, using field staff body height as a guide.
- Walk around the load and estimate the proportion by primary category by percent volume.
  - The process was repeated for composition by volume of each specific material within each primary category.

[1] CalRecycle. 2006. Method of Visual Characterization of Disposed Waste from Construction and Demolition Activities. Prepared under contract by Cascadia Consulting Group.

- Two Tetra Tech staff completed the visual estimation independently from each other to avoid bias from one person.
- Each site provided Tetra Tech with duplicate scale tickets to determine the weight of the loads characterized.

Photos were taken during the study to provide visual information of what occurred during the study and to support recorded data. Appendix B includes selected photographs from the sorting event.

2.3 Material Categories

The material category list was provided by Metro Vancouver and is based on the list used during previous Metro Vancouver C&D waste composition studies. The material categories are included in Appendix C. C&D materials were characterized into 17 primary categories and 59 secondary categories. Primary categories included:

- Wood.
- Plastics.
- Metals.
- Miscellaneous building material.
- Fines.
- Bulky items.
- Land clearing.
- Paper.
- Masonry.
- Glass and ceramics.
- Household garbage.
- Rubber.
- Concrete.
- Asphalt.
- Rubble/soil.
- Textiles.
- Miscellaneous.

2.4 Data Analysis

Data from the visual waste composition study was recorded first on paper data sheets and later entered on Tetra Tech's waste composition spreadsheet tool for analysis. Data was recorded as volumes into primary and secondary categories. Category densities, which were provided by Metro Vancouver and were similar to the densities used in the 2022 C&D study, were used to convert the volumes into weights. Category densities are listed in Appendix C. To calculate percent composition by volume and by weight, the volumes and weights for each material category were summed within the sector and divided by the total volumes and weights of all samples within the sector.

The overall regional composition was calculated by extrapolating the average composition by location and sector and multiplying that with the estimated tonnages of waste for that location and sector. It should be noted that while tonnages disposed at Out-of-Region facilities were used in the calculation for the overall regional composition of C&D materials, loads were not characterized at Out-of-Region facilities. The composition of TS loads disposed at Ecowaste Landfill was used as a proxy for the composition of Out-of-Region loads when calculating the regional average composition.

For this study, the results for the C&D Processing Residuals and Direct Haul loads were reported separately for each facility. This approach is different from the 2022 C&D waste composition study, which averaged the results for the C&D Processing Residuals and Direct Haul loads for each facility. The change was made because these streams were noted to have different waste compositions.

3.0 RESULTS FROM VANCOUVER LANDFILL

The following summarizes the waste composition results of the C&D loads from the C&D Processing Residuals and Direct Haul sectors sampled at Vancouver Landfill in October 2025. Details of the waste composition results for all material categories are presented in Appendix D. This is a snapshot of the types and relative quantities of C&D materials that were discarded at Vancouver Landfill at this time of the year.

3.1 Construction and Demolition Processing Residuals Loads Characterized at Vancouver Landfill

Figure 3-1 illustrates the average composition by weight of the C&D Processing Residuals loads characterized at Vancouver Landfill during this study. The largest components of the waste from this sector were wood (38%), plastics (28%), metals (9%), paper (7%), and textiles (5%). These five primary categories represented 87% of the overall weight of the samples from this sector.

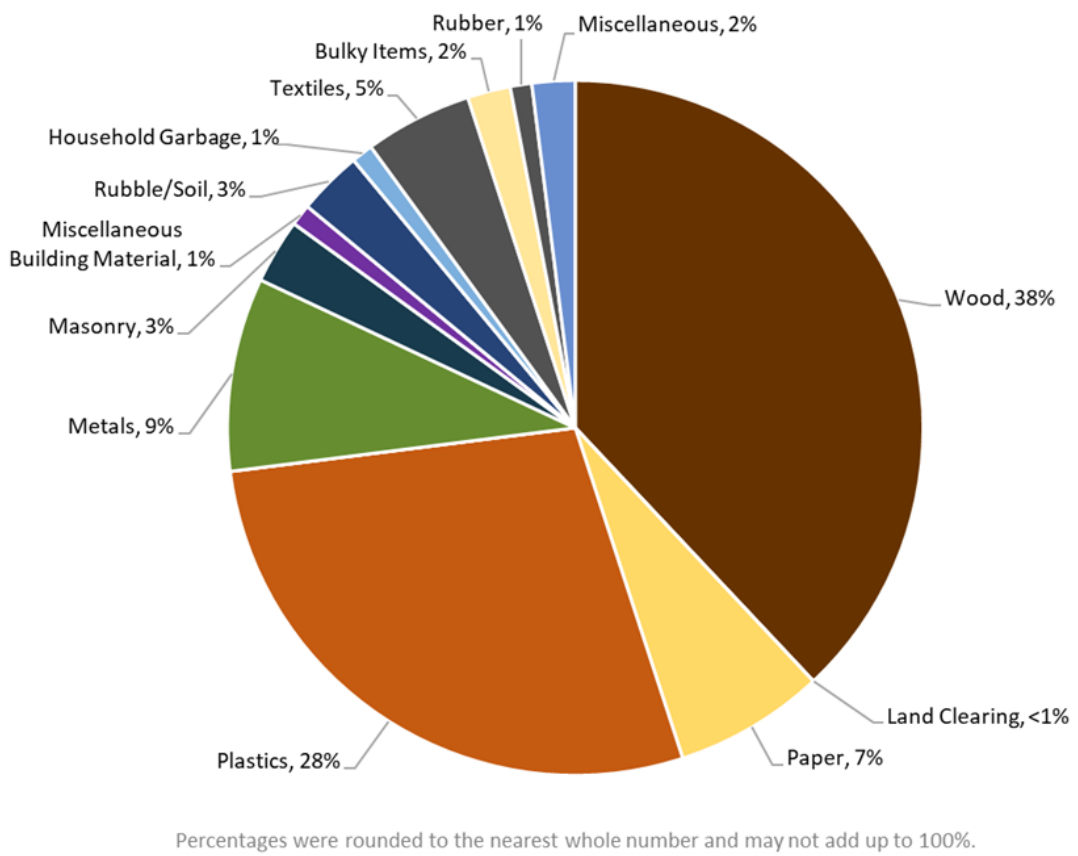


Figure 3-1: Composition of C&D Processing Residuals Characterized at Vancouver Landfill

Table 3-1 summarizes the estimated annual disposed tonnage of the C&D Processing Residuals loads characterized at Vancouver Landfill.

Table 3-1: Composition of C&D Processing Residuals Characterized at Vancouver Landfill

Primary Category	Estimated Annual Disposed Tonnage (tonnes)
Wood	22,525
Land Clearing	132
Paper	3,894
Plastics	16,381
Concrete	0
Metals	5,132
Masonry	1,703
Asphalt	0
Miscellaneous Building Material	876
Glass and Ceramics	0
Rubble/Soil	1,627
Fines	0
Household Garbage	339
Textiles	3,216
Bulky Items	1,188
Rubber	381
Miscellaneous	1,132
Total	**58,526**

Note:
Tonnages were rounded to the nearest whole number and may not add to the total tonnage.

Figure 3-2 presents a breakdown of the wood primary category into its secondary categories for the C&D Processing Residuals loads characterized at Vancouver Landfill. The wood primary category represented 38% of the sector's composition by weight. Of the wood primary category, the top two categories were stained and treated dimensional lumber (34%) and composite wood – plywood (32%).

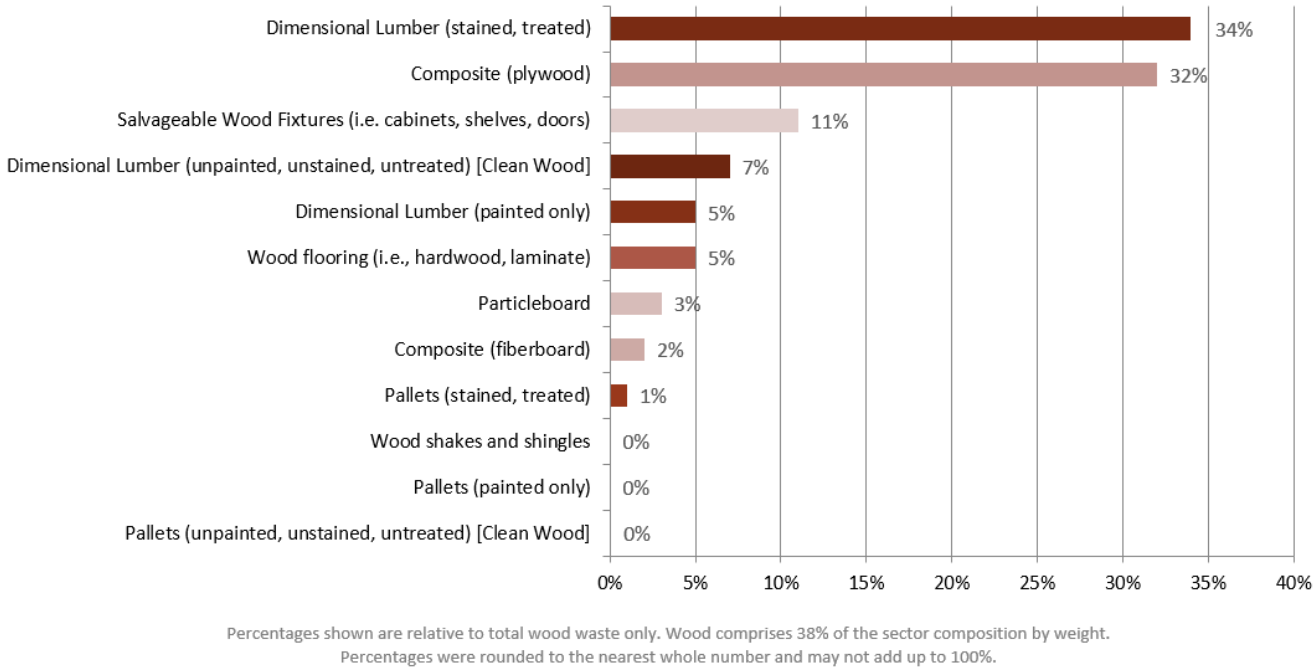


Figure 3-2: Composition of the Wood Primary Category for C&D Processing Residuals Characterized at Vancouver Landfill

3.2 Direct Haul Loads Characterized at Vancouver Landfill

Figure 3-3 illustrates the average composition by weight of the Direct Haul loads characterized at Vancouver Landfill during this study. The largest components of the waste from this sector were wood (66%) and plastics (15%). These two primary categories represented 81% of the overall weight of the samples from this sector.

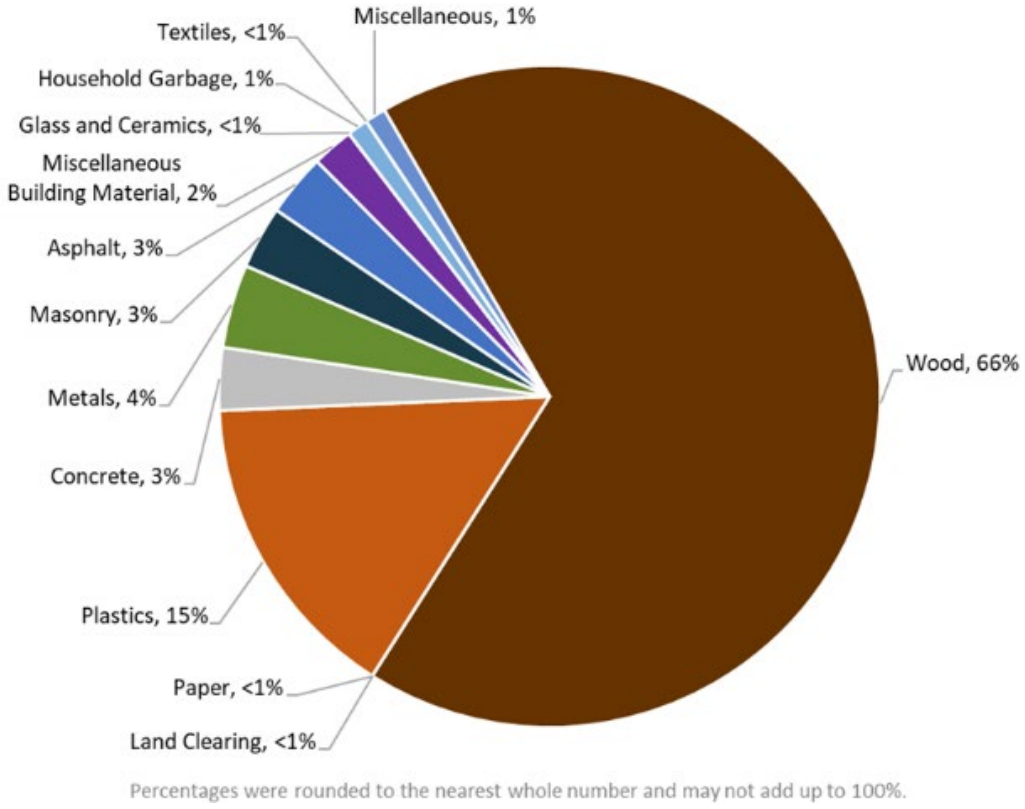


Figure 3-3: Composition of Direct Haul Loads Characterized at Vancouver Landfill

Table 3-2 summarizes the estimated annual disposed tonnage of the Direct Haul loads characterized at Vancouver Landfill.

Table 3-2: Composition of Direct Haul Loads Characterized at Vancouver Landfill

Primary Category	Estimated Annual Disposed Tonnage (tonnes)
Wood	13,968
Land Clearing	71
Paper	81
Plastics	3,179
Concrete	719
Metals	936
Masonry	683
Asphalt	726
Miscellaneous Building Material	328
Glass and Ceramics	49
Rubble/Soil	0
Fines	0
Household Garbage	157

Primary Category	Estimated Annual Disposed Tonnage (tonnes)
Textiles	32
Bulky Items	0
Rubber	0
Miscellaneous	141
Total	**21,069**

Note:
Tonnages were rounded to the nearest whole number and may not add to the total tonnage.

Figure 3-4 presents a breakdown of the wood primary category into its secondary categories for the Direct Haul loads characterized at Vancouver Landfill. The wood primary category represented 66% of the sector's composition by weight. Of the wood primary category, the top two categories were stained and treated dimensional lumber (52%) and composite wood – plywood (38%).

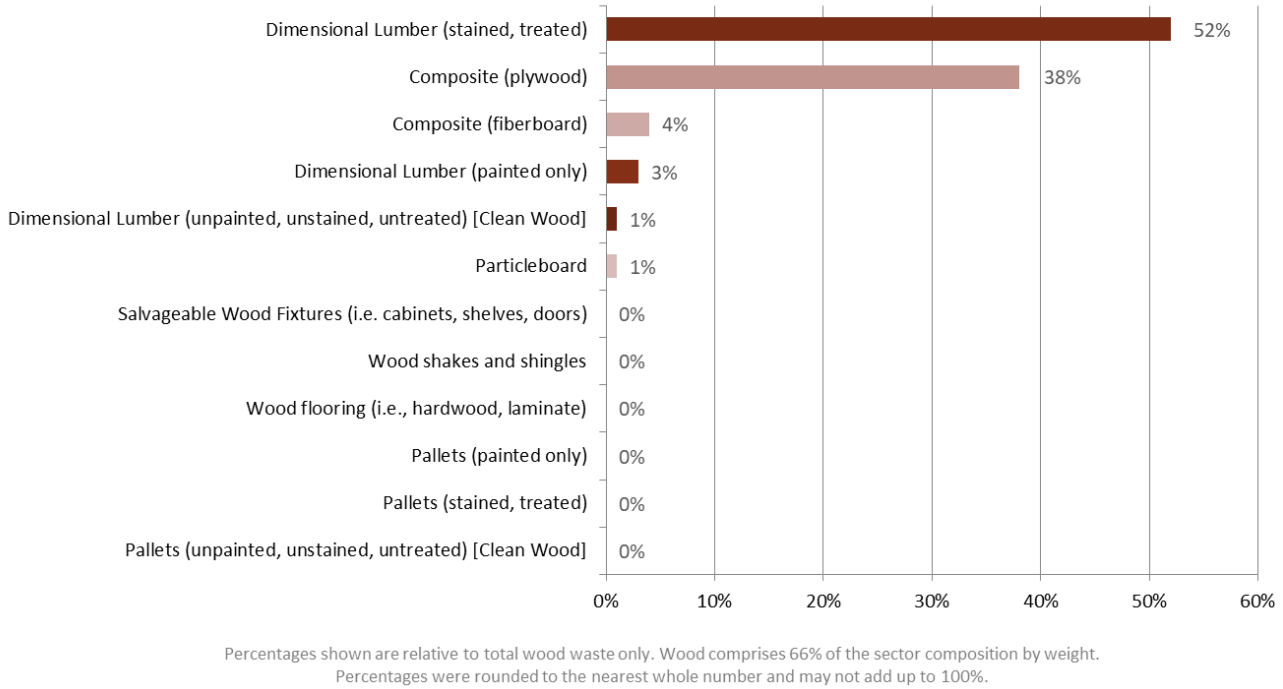


Figure 3-4: Composition of the Wood Primary Category for Direct Haul Loads Characterized at Vancouver Landfill

3.3 Vancouver Landfill Historical Results Comparison

Table 3-3 summarizes the results for the C&D loads characterized at Vancouver Landfill during the 2011, 2015, 2018, 2022, and 2025 studies. In 2022, samples included a higher proportion of C&D Processing Residuals samples compared to 2011, 2015, and 2018, resulting in a lower overall percentage of wood and more household garbage.[2] In 2025, samples were identified to be either C&D Processing Residuals or Direct Haul loads and the average shown in Table 3-3 is calculated as a weighted average from the composition and estimated tonnages for each sector. Direct Haul loads had more wood waste and less plastics, paper, and textiles when compared to C&D Processing Residuals loads.

Table 3-3: Historical Comparison of the Estimated Composition of C&D Waste Disposed at Vancouver Landfill

Primary Category	Average Percent Composition by Weight					Estimated Annual Disposed Tonnage (tonnes)				
	2011	2015	2018	2022	2025	2011	2015	2018	2022	2025
Wood	61%	90%	87%	65%	46%	117,915	112,292	110,096	76,395	36,493
Land Clearing	2%	1%	<1%	1%	<1%	3,567	1,538	308	858	202
Paper	<1%	<1%	<1%	1%	5%	24	48	89	1,123	3,975
Plastics	1%	<1%	4%	6%	25%	2,625	1,892	5,190	7,656	19,560
Concrete	5%	<1%	1%	3%	1%	9,147	332	1,079	3,473	719
Metals	2%	2%	2%	4%	8%	2,962	506	3,075	4,205	6,068
Masonry	2%	<1%	<1%	2%	3%	2,962	506	540	1,908	2,386
Asphalt	6%	3%	2%	4%	1%	12,300	3,128	2,077	4,652	726
Miscellaneous Building Material	<1%	2%	1%	4%	2%	4,360	1,840	1,335	4,758	1,204
Glass and Ceramics	<1%	0%	<1%	1%	<1%	821	62	75	1,714	49
Rubble/Soil	18%	1%	2%	4%	2%	3,567	1,538	1,945	4,186	1,627
Household Garbage	<1%	<1%	<1%	3%	1%	80	201	109	3,391	496
Textiles	<1%	<1%	<1%	1%	4%	98	173	161	931	3,248
Bulky Items	<1%	<1%	0%	1%	1%	98	168	53	890	1,188
Rubber	<1%	<1%	<1%	2%	<1%	127	106	286	1,906	381
Miscellaneous	<1%	0%	<1%	0%	2%	141	0	95	0	1,274
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**160,794**	**124,330**	**126,513**	**118,046**	**79,595**

Note:
Percentages and tonnages were rounded to the nearest whole number and may not add to 100% or the total tonnage.

[2] Dillon Consulting Limited. October 2023. *Metro Vancouver 2022 Construction and Demolition Waste Composition Study*.

4.0 RESULTS FROM ECOWASTE LANDFILL

The following summarizes the waste composition results of the C&D loads from the C&D Processing Residuals and Direct Haul sectors sampled at Ecowaste Landfill in October 2025. Details of the waste composition results for all material categories are presented in Appendix D. This is a snapshot of the types and relative quantities of C&D materials that were discarded at Ecowaste Landfill at this time of the year.

4.1 Construction and Demolition Processing Residuals Loads Characterized at Ecowaste Landfill

Figure 4-1 illustrates the average composition by weight of the C&D Processing Residuals loads characterized at Ecowaste Landfill during this study. The largest components of the waste from this sector were wood (63%), plastics (14%), and metals (6%). These three primary categories represented 83% of the overall weight of the samples from this sector.

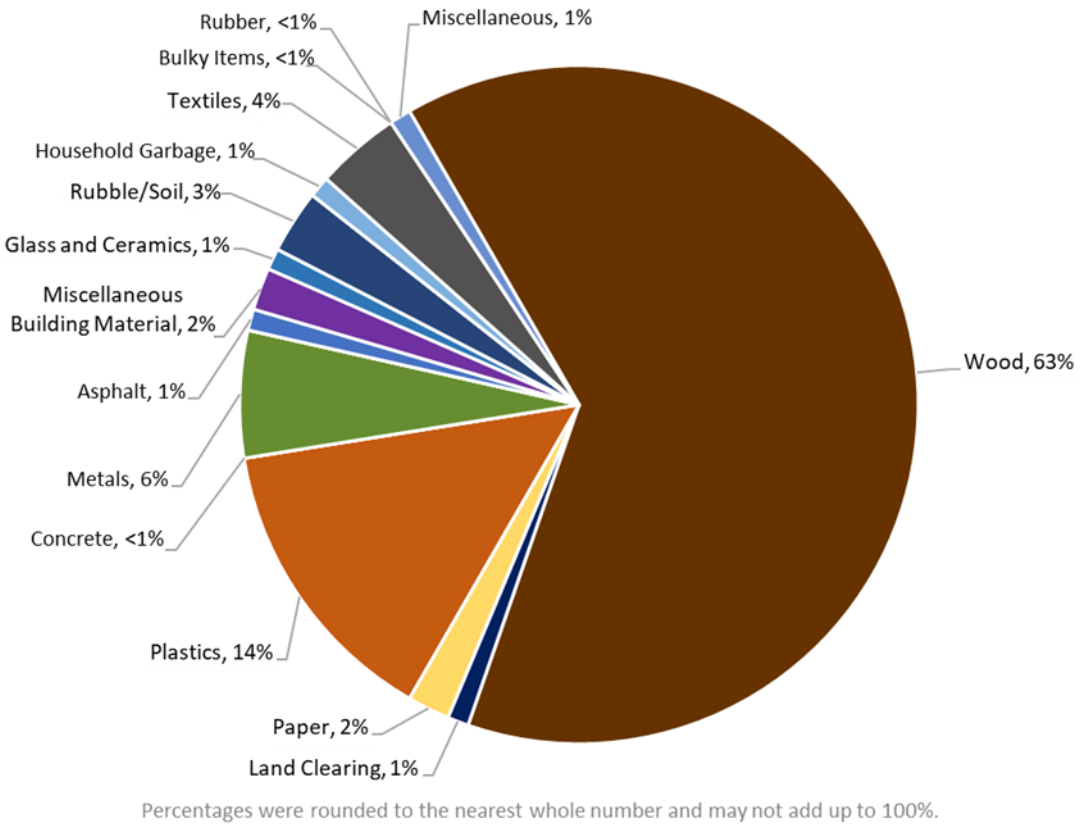


Figure 4-1: Composition of C&D Processing Residuals Characterized at Ecowaste Landfill

Table 4-1 summarizes the estimated annual disposed tonnage of the C&D Processing Residuals loads characterized at Ecowaste Landfill.

Table 4-1: Composition of C&D Processing Residuals Loads Characterized at Ecowaste Landfill

Primary Category	Estimated Annual Disposed Tonnage (tonnes)
Wood	55,918
Land Clearing	709
Paper	1,855
Plastics	12,794
Concrete	438
Metals	5,607
Masonry	0
Asphalt	798
Miscellaneous Building Material	2,165
Glass and Ceramics	582
Rubble/Soil	2,366
Fines	0
Household Garbage	1,070
Textiles	3,399
Bulky Items	178
Rubber	416
Miscellaneous	445
Total	**88,740**

Note:
Tonnages were rounded to the nearest whole number and may not add to the total tonnage.

Figure 4-2 presents a breakdown of the wood primary category into its secondary categories for the C&D Processing Residuals loads characterized at Ecowaste Landfill. The wood primary category represented 63% of the sector's composition by weight. Of the wood primary category, the top three categories were stained and treated dimensional lumber (33%), composite wood – plywood (27%), and particleboard (13%).

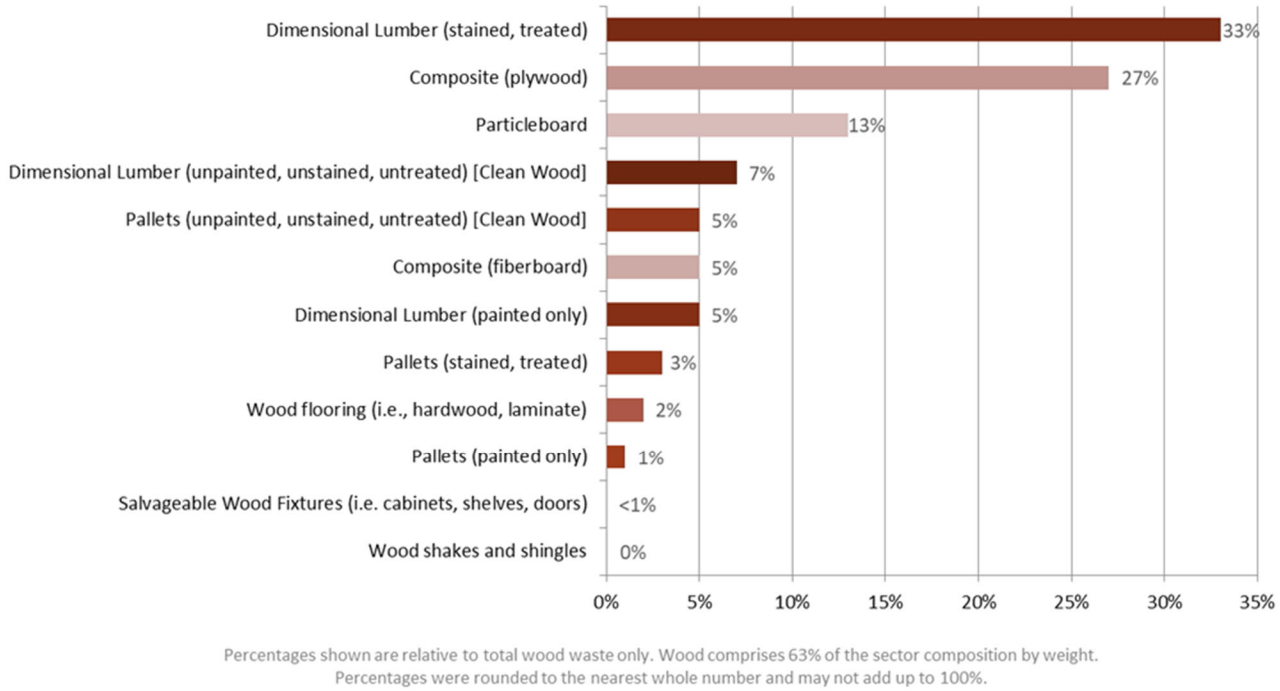


Figure 4-2: Composition of the Wood Primary Category for C&D Processing Residuals Characterized at Ecowaste Landfill

4.2 Direct Haul Loads Characterized at Ecowaste Landfill

Figure 4-3 illustrates the average composition by weight of the Direct Haul loads characterized at Ecowaste Landfill during this study. The largest components of the waste from this sector were wood (52%), asphalt (9%), metals (7%), and plastics (7%). These four primary categories represented 75% of the overall weight of the samples from this sector.

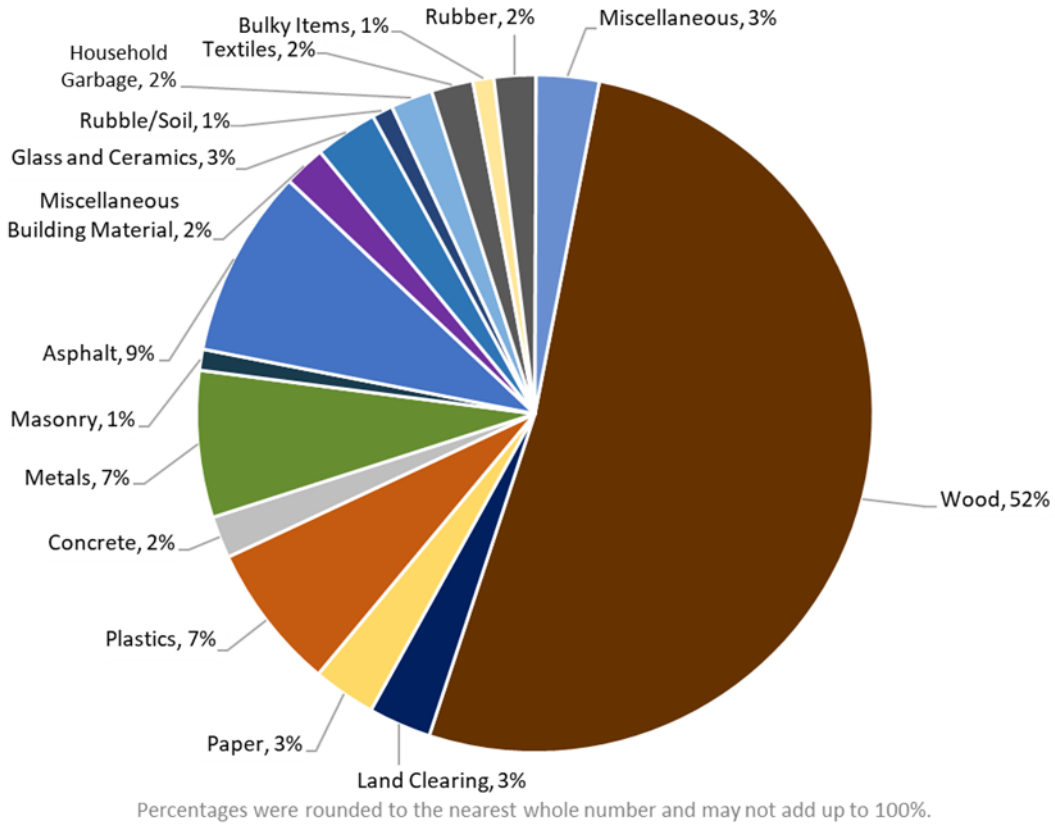


Figure 4-3: Composition of Direct Haul Loads Characterized at Ecowaste Landfill

Table 4-2 summarizes the estimated annual disposed tonnage of the Direct Haul loads characterized at Ecowaste Landfill.

Table 4-2: Composition of Direct Haul Loads Characterized at Ecowaste Landfill

Primary Category	Estimated Annual Disposed Tonnage (tonnes)
Wood	66,898
Land Clearing	3,464
Paper	4,324
Plastics	9,188
Concrete	1,985
Metals	8,714
Masonry	1,232

Primary Category	Estimated Annual Disposed Tonnage (tonnes)
Asphalt	11,222
Miscellaneous Building Material	2,845
Glass and Ceramics	3,467
Rubble/Soil	1,464
Fines	0
Household Garbage	2,334
Textiles	2,833
Bulky Items	1,321
Rubber	3,174
Miscellaneous	3,634
Total	**128,099**

Note:
Tonnages were rounded to the nearest whole number and may not add to the total tonnage.

Figure 4-4 presents a breakdown of the wood primary category into its secondary categories for the Direct Haul loads characterized at Ecowaste Landfill. The wood primary category represented 52% of the sector's composition by weight. Of the wood primary category, the top two categories were composite wood – plywood (30%) and stained and treated dimensional lumber (26%).

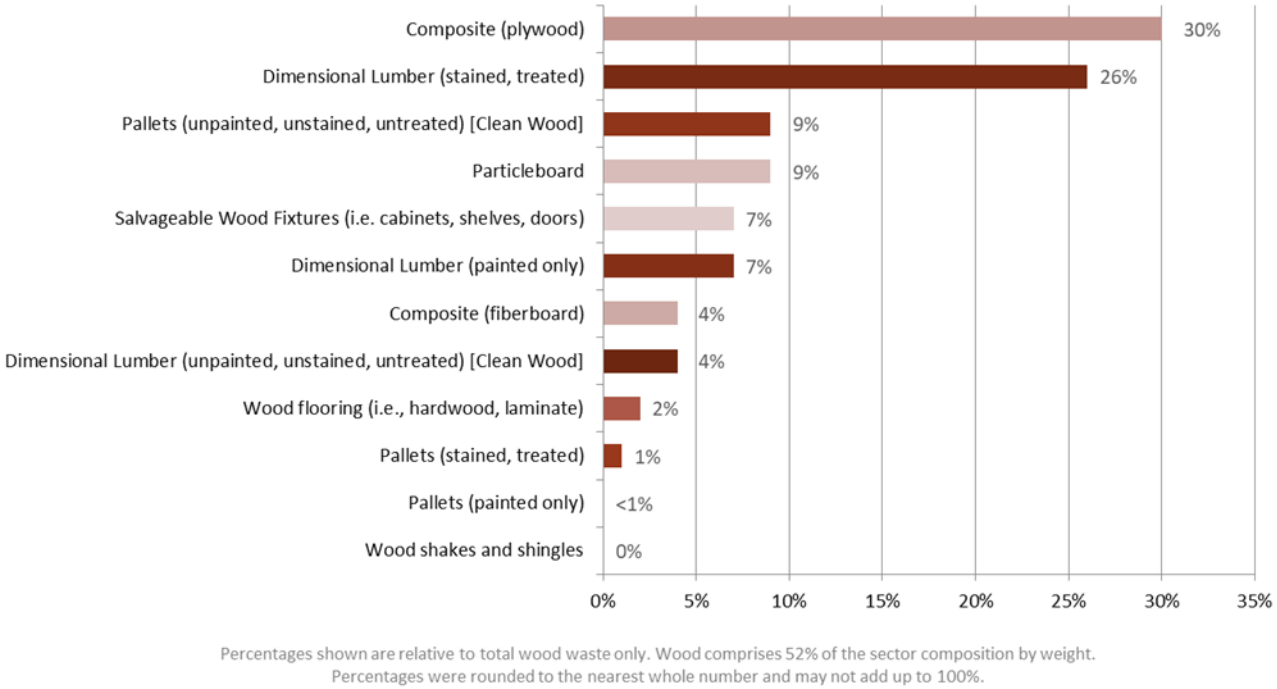


Figure 4-4: Composition of the Wood Primary Category for Direct Haul Loads Characterized at Ecowaste Landfill

4.3 Ecowaste Landfill Historical Results Comparison

Table 4-3 summarizes the results for the C&D loads characterized at Ecowaste Landfill during the 2011, 2015, 2018, 2022, and 2025 studies. In 2022, samples included a higher proportion of C&D Processing Residuals samples compared to 2011, 2015, and 2018, resulting in a lower overall percentage of wood and more household garbage.[3] In 2025, samples were identified to be either C&D Processing Residuals or Direct Haul loads and the average shown in Table 4-3 is calculated as a weighted average from the composition and estimated tonnages for each sector. Direct Haul loads had more asphalt and less wood and plastics when compared to C&D Processing Residuals loads.

Table 4-3: Historical Comparison of the Estimated Composition of C&D Waste Disposed at Ecowaste Landfill

Primary Category	Average Percent Composition by Weight					Estimated Annual Disposed Tonnage (tonnes)				
	2011	2015	2018	2022	2025	2011	2015	2018	2022	2025
Wood	37%	41%	47%	42%	57%	32,038	77,726	97,322	75,807	122,816
Land Clearing	1.0%	2%	1%	7%	2%	924	4,558	1,443	13,098	4,173
Paper	<1%	2%	2%	2%	3%	330	4,442	4,949	2,912	6,178
Plastics	10%	9%	9%	9%	10%	8,554	16,305	31,753	16,671	21,981
Concrete	4%	<1%	<1%	2%	1%	3,744	155	206	3,434	2,423
Metals	1%	2%	5%	3%	7%	1,093	4,230	10,722	5,093	14,322
Masonry	<1%	<1%	1%	3%	1%	67	546	2,680	5,103	1,232
Asphalt	12%	13%	7%	8%	6%	10,423	25,319	13,609	14,717	12,021
Miscellaneous Building Material	6%	10%	5%	5%	2%	5,266	18,747	11,134	8,877	5,010
Glass and Ceramics	1%	1%	3%	2%	2%	1,280	2,466	5,567	3,608	4,048
Rubble/Soil	20%	9%	9%	7%	2%	17,442	17,510	18,557	12,919	3,830
Household Garbage	2%	2%	2%	5%	2%	1,415	3,667	4,536	8,844	3,404
Textiles	<1%	2%	<1%	1%	3%	561	4,129	825	1,285	6,232
Bulky Items	<1%	3%	1%	2%	1%	325	4,684	1,856	2,686	1,499
Rubber	<1%	1%	<1%	1%	2%	291	1,803	825	2,304	3,591
Miscellaneous	3%	2%	<1%	1%	2%	2,565	4,192	206	1,146	4,078
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**86,318**	**190,479**	**206,191**	**178,504**	**216,839**

Note:
Percentages and tonnages were rounded to the nearest whole number and may not add to 100% or the total tonnage.

[3] Dillon Consulting Limited. October 2023. *Metro Vancouver 2022 Construction and Demolition Waste Composition Study*.

5.0 OVERALL REGIONAL AVERAGE

The following summarizes the average regional composition of the C&D sector. Results are presented as a weighted average based on the tonnages disposed by each sector and facility. Tonnage data from Out-of-Region facilities is also included in the regional average calculation. Details of the waste composition results for all material categories are presented in Appendix D. This is a snapshot of the types and relative quantities of C&D materials that were discarded in the region at this time of the year.

5.1 Average Regional Composition

Figure 5-1 illustrates the average regional composition by weight of the C&D sector. The largest components of the waste from the C&D sector were wood (54%), plastics (14%), and metals (7%). These three primary categories represented 75% of the overall weight of the samples from this sector.

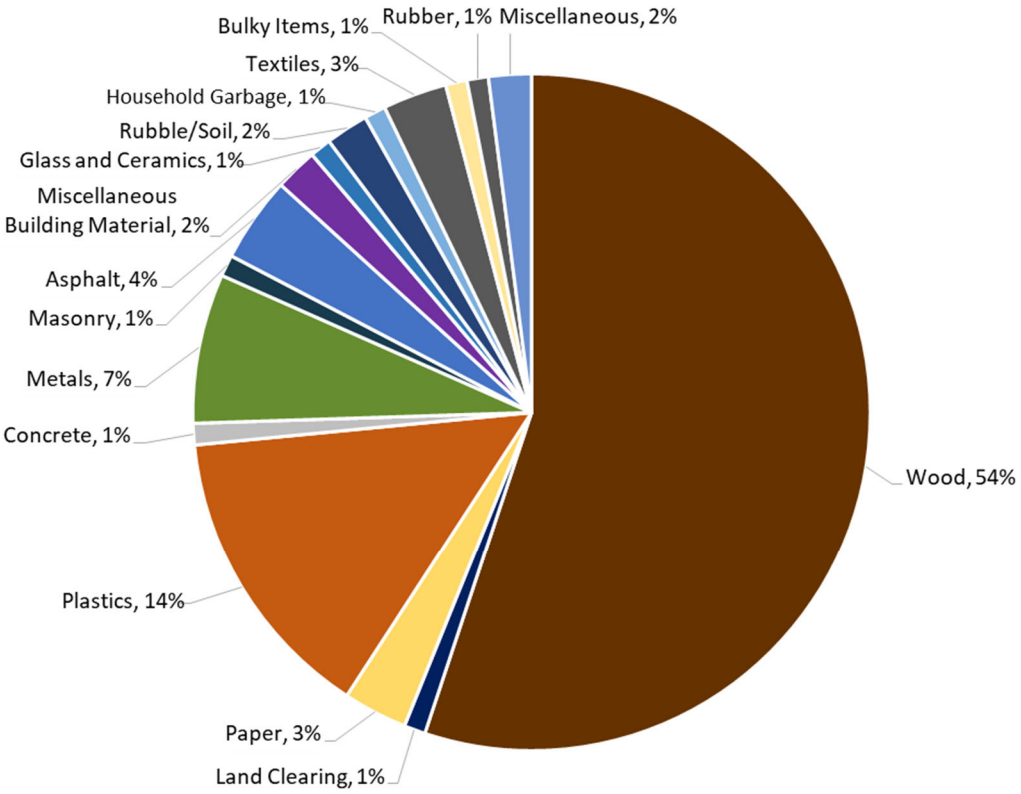
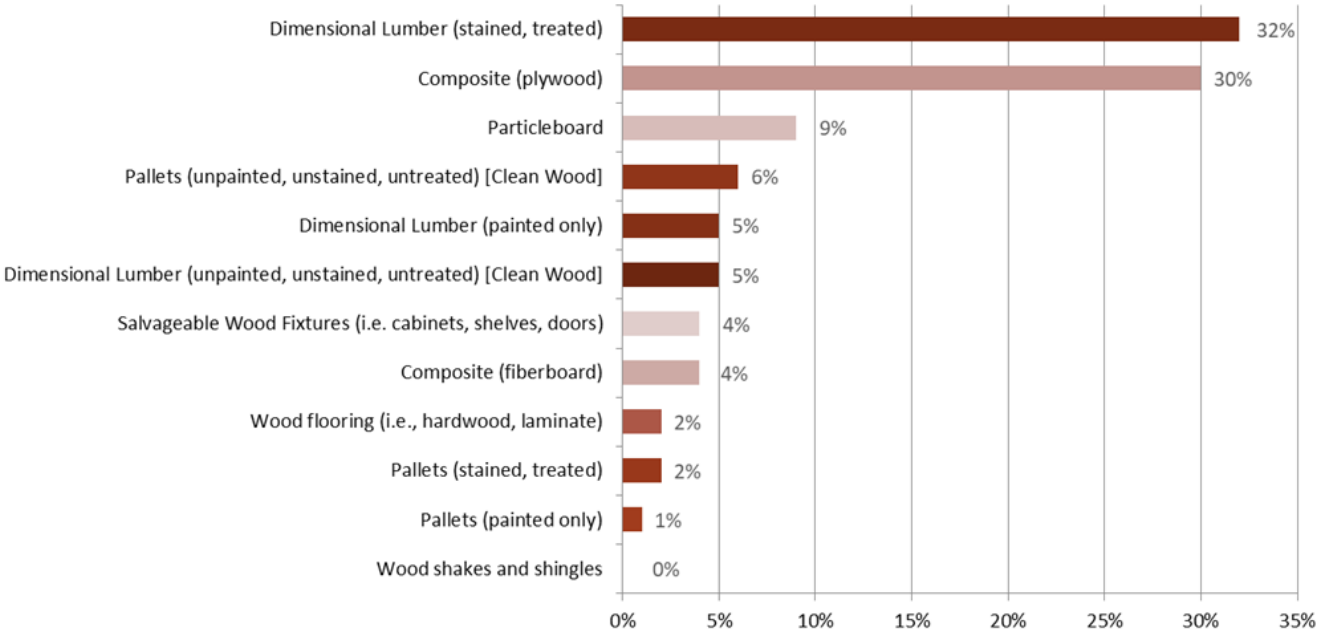


Figure 5-1: Average Regional Composition of the C&D Sector

Figure 5-2 presents a breakdown of the wood primary category into its secondary categories for the C&D sector from a regional perspective. The wood primary category represented 54% of the sector's composition by weight. Of the wood primary category, the top two categories were stained and treated dimensional lumber (32%) and composite wood – plywood (30%).



Percentages shown are relative to total wood waste only. Wood comprises 54% of the sector composition by weight.
Percentages were rounded to the nearest whole number and may not add up to 100%.

Figure 5-2: Average Regional Composition of the Wood Primary Category

Table 5-1 summarizes the average composition (by weight) and estimated annual disposed tonnage of the C&D sector in Metro Vancouver. It should be noted that the composition of C&D Processing Residuals loads disposed at Ecowaste was used as a proxy for the composition of Out-of-Region loads when calculating the estimated annual disposed tonnage at Out-of-Region facilities.

Table 5-1: Estimated Composition of C&D Waste Disposed in Metro Vancouver in 2025

Primary Category	Vancouver Landfill				Ecowaste Landfill				Out-of-Region	Regional Average	
	C&D Processing Residuals		Direct Haul		C&D Processing Residuals		Direct Haul				
	Average Percent Composition by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average Percent Composition by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average Percent Composition by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average Percent Composition by Weight	Estimated Annual Disposed Tonnage (tonnes)	Estimated Annual Disposed Tonnage (tonnes)	Average Percent Composition by Weight	Estimated Annual Disposed Tonnage (tonnes)
Wood	38%	22,525	66%	13,968	63%	55,918	52%	66,898	14,932	54%	174,241
Land Clearing	<1%	132	<1%	71	1%	709	3%	3,464	189	1%	4,564
Paper	7%	3,894	<1%	81	2%	1,855	3%	4,324	495	3%	10,648
Plastics	28%	16,381	15%	3,179	14%	12,794	7%	9,188	3,416	25%	44,957
Concrete	0%	0	3%	719	<1%	438	2%	1,985	117	1%	3,259
Metals	9%	5,132	4%	936	6%	5,607	7%	8,714	1,497	7%	21,887
Masonry	3%	1,703	3%	683	0%	0	1%	1,232	0	1%	3,619
Asphalt	0%	0	3%	726	1%	798	9%	11,222	213	4%	12,959
Miscellaneous Building Material	1%	876	2%	328	2%	2,165	2%	2,845	578	2%	6,792
Glass and Ceramics	0%	0	<1%	49	1%	582	3%	3,467	155	1%	4,253
Rubble/Soil	3%	1,627	0%	0	3%	2,366	1%	1,464	632	2%	6,088
Fines	0%	0	0%	0	0%	0	0%	0	0	0%	0
Household Garbage	1%	339	1%	157	1%	1,070	2%	2,334	286	1%	4,187
Textiles	5%	3,216	<1%	32	4%	3,399	2%	2,833	908	3%	10,387
Bulky Items	2%	1,188	0%	0	<1%	178	1%	1,321	47	1%	2,734
Rubber	1%	381	0%	0	<1%	416	2%	3,174	111	1%	4,083
Miscellaneous	2%	1,132	1%	141	1%	445	3%	3,634	119	2%	5,471
Total	**100%**	**58,526**	**100%**	**21,069**	**100%**	**88,740**	**100%**	**128,099**	**23,696**	**100%**	**320,131**

Note:
Percentages and tonnages were rounded to the nearest whole number and may not add to 100% or the total tonnage.

5.2 Regional Historical Results Comparison

Table 5-2 summarizes the results for the estimated average regional composition, annual disposed tonnage, and per capita disposal rate of the C&D loads characterized during the 2011, 2015, 2018, 2022, and 2025 studies. There is an apparent decreasing trend in the per capita disposal rate of C&D waste from 2018 to 2025. Compared to previous studies, the 2025 samples had notable decreases in the per capita disposal rate for the primary categories of wood, rubble/soil, and miscellaneous building material.

Table 5-2: Historical Comparison of the Estimated Composition of C&D Waste Disposed in Metro Vancouver

Primary Category	Average Percent Composition by Weight					Estimated Annual Disposed Tonnage (tonnes)					Estimated Per Capita Disposal Rate (kg/capita)				
	2011	2015	2018	2022	2025	2011	2015	2018	2022	2025	2011	2015	2018	2022	2025
Population											2,395,520	2,497,052	2,550,047	2,642,825	3,031,761
Wood	54%	57%	61%	48%	54%	198,263	217,739	243,179	177,011	174,241	83	87	95	67	57
Land Clearing	2%	2%	1%	4%	1%	5,939	6,226	2,000	14,944	4,564	2	2	1	6	2
Paper	<1%	2%	2%	2%	3%	448	5,888	6,399	6,168	10,648	0	2	3	2	4
Plastics	4%	6%	12%	10%	14%	14,290	24,465	45,996	35,674	44,957	6	10	18	13	15
Concrete	5%	<1%	<1%	2%	1%	16,965	486	1,600	7,593	3,259	7	0	1	3	1
Metals	2%	2%	4%	4%	7%	5,754	7,804	16,799	13,044	21,887	2	3	7	5	7
Masonry	1%	<1%	1%	2%	1%	4,050	1,052	4,000	7,316	3,619	2	0	2	3	1
Asphalt	8%	9%	5%	6%	4%	29,602	34,314	19,598	21,407	12,959	12	14	8	8	4
Miscellaneous Building Material	3%	7%	4%	6%	2%	12,472	28,551	16,399	22,880	6,792	5	11	6	9	2
Glass and Ceramics	<1%	1%	2%	2%	1%	2,712	2,602	7,199	6,674	4,253	1	1	3	3	1
Rubble/Soil	19%	7%	6%	6%	2%	68,736	27,947	25,598	22,770	6,088	29	11	10	8	2
Household Garbage	<1%	1%	2%	0%	1%	1,890	5,441	5,999	0	4,187	1	2	2	7	1
Textiles	<1%	2%	<1%	5%	3%	839	7,106	1,000	19,956	10,387	0	3	0	1	3
Bulky Items	<1%	2%	1%	1%	1%	540	7,518	2,400	3,529	2,734	0	3	1	2	1
Rubber	<1%	1%	<1%	1%	1%	538	2,261	1,600	5,005	4,083	0	1	1	2	1
Miscellaneous	<1%	2%	<1%	<1%	2%	3,419	6,256	200	6,224	5,471	1	3	0	1	2
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**366,459**	**358,656**	**399,965**	**371,972**	**320,131**	**153**	**144**	**157**	**139**	**106**

Note:
Percentages, tonnages, and per capita disposal rates were rounded to the nearest whole number and may not add to 100%, total tonnage, or total disposal rate.

Figure 5-3 summarizes the estimated per capita disposal rate of the C&D loads characterized during the 2011, 2015, 2018, 2022, and 2025 studies.

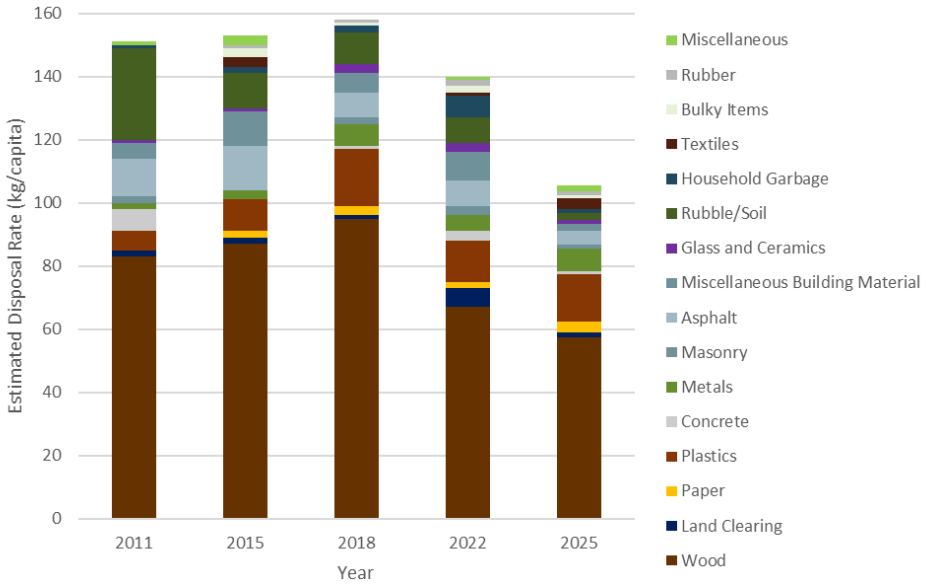


Figure 5-3: Historical Comparison of the Per Capita Disposal Rate of the C&D Sector

Table 5-3 summarizes the weight of the samples characterized during the 2011, 2015, 2018, 2022, and 2025 studies. The average weight per sample has fluctuated between studies. At both Vancouver Landfill and Ecowaste Landfill, the weight per sample during the 2025 study was lower than in previous studies.

- At Vancouver Landfill, field staff characterized all C&D loads arriving at Vancouver Landfill during the 2025 study. Field staff noted that the C&D loads arriving at Vancouver Landfill only consisted of trucks with large 90 cubic yard containers. Some of these 90 cubic yard containers were not full, which decreased the average weight per sample.
- At Ecowaste Landfill, there may be an increased number of smaller loads arriving at Ecowaste Landfill compared to previous seasons, considering the lack of smaller loads observed at Vancouver Landfill during the 2025 study period. An increased proportion of smaller loads at Ecowaste Landfill would result in a decrease in the average weight per sample.

Table 5-3: Composition of C&D Loads Characterized at Vancouver Landfill and Ecowaste Landfill

Study Year	Vancouver Landfill			Ecowaste Landfill		
	Total Weight of Samples (tonnes)	Number of Samples	Average Weight per Sample (tonnes)	Total Weight of Samples (tonnes)	Number of Samples	Average Weight per Sample (tonnes)
2011	1,050	50	21	473	50	9
2015	773	50	15	484	53	9
2018	765	50	15	292	49	6
2022	1,071	55	19	977	92	11
2025	200	13	15	667	122	5

5.3 Limitations of Study

Limitations and sources of error for this study include the following:

- **Distribution of samples:** In 2025, there was a limited number of vehicles with C&D loads arriving at Vancouver Landfill, which resulted in a decrease in the number of Vancouver Landfill loads characterized and an increase in the number of Ecowaste Landfill loads characterized. While the overall amount of C&D waste disposed at Vancouver Landfill and Ecowaste Landfill remained relatively the same between 2022 and 2025, the proportion of the disposal tonnages at Vancouver Landfill and Ecowaste Landfill was noticeably different, as shown in Table 5-4.

Table 5-4: Annual Tonnages for C&D Waste Disposed at Vancouver Landfill and Ecowaste Landfill

Sector	2011	2015	2018	2022	2025
Vancouver Landfill	160,794	124,330	126,513	118,046	79,595
Ecowaste Landfill	86,318	190,479	206,191	178,504	216,839
Total Disposed at Vancouver Landfill and Ecowaste Landfill (Excludes Out-of-Region Disposal Tonnages)	**247,112**	**314,809**	**332,704**	**296,550**	**296,434**

- **Limited number of loads available at Vancouver Landfill**: In 2025, there was a low number of vehicles with C&D loads; as a result, every load with C&D materials that arrived at Vancouver Landfill during the study period was selected for sample characterization. Due to the small number of C&D loads available for characterization, the estimated composition of the Vancouver Landfill is more likely to be skewed by loads that contain atypical items.

- **Waste management facilities included:** Only the C&D loads disposed at Vancouver Landfill and Ecowaste Landfill were characterized in 2025. The composition of the C&D waste disposed at Out-of-Region facilities was not characterized; instead, the composition was assumed to be the same as the C&D Processing Residuals loads disposed at Ecowaste Landfill.

- **Study duration:** The study was conducted for one week and the results may not be representative of the composition of the C&D waste for the whole year. Variances may include variations in the amount and types of C&D waste generated due to factors such as seasonal variations in C&D activity, differing weather conditions, and proximity to holidays.

- **Visual assessment only:** The visual estimate methodology characterizes the materials that are visible to an observer outside of the tipped load; therefore, the composition data does not account for materials that are not visible, including materials in the interior of the load and materials contained in opaque black garbage bags. To mitigate this source of error, drivers were asked to drive forward while tipping their load, to ensure the C&D material was spread out. In some instances, large loads were further spread out by a loader or excavator for better characterization.

6.0 SUMMARY OF FINDINGS

The following are observed trends based on the results for this C&D waste composition study:

- The amount of C&D waste disposed at Vancouver Landfill has decreased when compared to previous years, while the amount of C&D waste disposed at Ecowaste Landfill has increased.
- Compared to previous studies, the regional composition of the C&D waste disposed has changed in the following manner:
  - A similar quantity of wood (174,241 tonnes in 2025 versus 177,011 tonnes in 2022);
  - More plastics (44,957 tonnes in 2025 versus 35,674 tonnes in 2022); and
  - More metal (21,887 tonnes in 2025 versus 13,044 tonnes in 2022).
- The regional C&D waste per capita disposal rate shows a decreasing trend from 2018 to 2025. Wood comprised 54% of the C&D waste composition study. Of the wood primary category, the top two categories were stained and treated dimensional lumber (32%) and composite wood – plywood (30%). Disposed wood decreased by 2,770 tonnes between 2022 and 2025, and the most significant decrease in wood occurred in salvageable wood fixtures, which declined by 11,004 tonnes from 2022 to 2025.

7.0 CLOSURE

We trust this document meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted,
Tetra Tech Canada Inc.

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APPENDIX A

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LIMITATIONS ON USE OF THIS DOCUMENT

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In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by TETRA TECH in its reasonably exercised discretion.

APPENDIX B

SELECTED PHOTOGRAPHS



Photo 1: Ecowaste Landfill Site Photo



Photo 2: Vancouver Landfill Site Photo



Photo 3: Example of a Load Being Tipped at Vancouver Landfill



Photo 4: Example of a Truck Tipping a Load at Ecowaste Landfill



Photo 5: Example of a Load Tipped at Vancouver Landfill



Photo 6: Example of a Load Tipped at Ecowaste Landfill



Photo 7: Field Staff Performing a Visual Estimate



Photo 8: Example of a Vancouver Landfill Load that includes Wood



Photo 9: Example of a Vancouver Landfill Load that includes Paper and Plastics Not Expected to Contain Chlorine



Photo 10: Example of an Ecowaste Landfill Load that includes Concrete Poured with Rebar



Photo 11: Example of an Ecowaste Landfill Load that includes Asphalt



Photo 12: Example of a Vancouver Landfill Load that includes Various Material Categories



Photo 13: Example of an Ecowaste Landfill Load that includes Composite Wood



Photo 14: Landfill Equipment Operator Pushing a Load After Visual Estimate was Completed

APPENDIX C

MATERIAL CATEGORIES

Table C-1: Material Category Descriptions

Category		Description and/or Examples	Density (kg/yd^3)
01	**Wood**		
1	Dimensional Lumber (unpainted, unstained, untreated [Clean wood])		204
2	Dimensional Lumber (stained, treated)		204
3	Dimensional Lumber (painted only)		204
4	Pallets (unpainted, unstained, untreated [Clean wood])		227
5	Pallets (stained, treated)		227
6	Pallets (painted only)		227
7	Wood Flooring	Hardwood, laminate	227
8	Wood Shakes and Shingles		198
9	Composite (plywood)		318
10	Composite (fiberboard)		318
11	Particleboard		318
12	Salvageable Wood Fixtures	Cabinets, shelves, doors	656
02	**Land Clearing**		
13	Large Yard Waste	Branches > 150 mm in diameter or 1 m long	204
14	Small Yard Waste, Green Waste		91
03	**Paper**		
15	Cardboard	Old corrugated cardboard (OCC)	45
16	Miscellaneous Paper	Office, kraft, etc.	165
04	**Plastics**		
17	Sheet or Film Plastic		10
18	Polystyrene/Styrofoam Packaging		10
19	Miscellaneous Plastics (Not Expected to Contain Chlorine)		382
20	Polyvinyl Chloride (PVC) Pipes, Hoses, Cable Coatings, and Plumbing		382
21	Window Assemblies		160
22	Vinyl Siding and Flooring		621

	Category	Description and/or Examples	Density (kg/yd^3)
23	Miscellaneous Plastics (Expected to Contain Chlorine)		382
05	**Concrete**		
24	Poured with Rebar		318
25	Poured without Rebar		318
26	Preformed Blocks		318
27	Residuals		318
06	**Metals**		
28	Ferrous		363
29	Non-ferrous		363
30	Mixed Metals	Plumbing, electrical, flashing, siding, furniture	153
07	**Masonry**		
31	Brick		227
32	Stone		1,949
33	Cinderblocks		1,223
34	Marble/Granite Slabs		2,064
08	**Asphalt**		
35	Pavement		499
36	Asphalt Shingles and Tarpaper		363
37	Tar and Gravel Roofing		613
09	**Miscellaneous Building Material**		
38	Carpet		182
39	Underlay		182
40	Linoleum Flooring		382
41	Drywall		182
42	Lath and Plaster		182
43	Stucco Wall Finishing		182
44	Ceiling Tiles		195

	Category	Description and/or Examples	Density (kg/yd^3)
45	Insulation	Fiberglass, cellulose, foam	14
46	Laminate Flooring		650
10	**Glass and Ceramics**		
47	Glass		136
48	Mirror Glass		136
49	Porcelain	Bathroom fixtures	837
50	Indoor Tile	Wall finishing, flooring	837
51	Outdoor Tile	Roofing	837
11	**Rubble/Soil**		
52	Rubble/Soil		727
12	**Fines**		
53	Fines		N/A
13	**Household Garbage**		
54	Household Garbage	Includes waste contained in black bags	182
14	**Textiles**		
55	Textiles		182
15	**Bulky Items**		
56	Bulky Items		182
16	**Rubber**		
57	Tires, Tubing		454
58	Rubber Roofing		454
17	**Miscellaneous**		
59	Miscellaneous		227

APPENDIX D

WASTE COMPOSITION RESULTS

Table D-1: Waste Composition Results

Material Category	Vancouver Landfill						Ecowaste Landfill						Out-of-Region[1]	Regional Average		
	C&D Processing Residuals			Direct Haul C&D Waste			C&D Processing Residuals			Direct Haul C&D Waste			C&D Processing Residuals			
	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)
Wood	**25.8%**	**38.5%**	**22,525**	**69.6%**	**66.3%**	**13,968**	**57.2%**	**63.0%**	**55,918**	**44.2%**	**52.2%**	**66,898**	**14,932**	**47.1%**	**54.4%**	**174,241**
Dimensional Lumber (unpainted, unstained, untreated [Clean wood])	2.4%	2.7%	1,586	1.1%	0.9%	184	4.7%	4.2%	3,765	2.1%	2.0%	2,533	1,005	3.0%	2.8%	9,074
Dimensional Lumber (stained, treated)	11.3%	13.0%	7,620	42.9%	34.5%	7,266	22.6%	20.6%	18,266	14.9%	13.8%	17,666	4,877	18.8%	17.4%	55,695
Dimensional Lumber (painted only)	1.6%	2.0%	1,164	2.5%	2.0%	424	3.1%	2.9%	2,540	3.8%	3.5%	4,464	678	3.1%	2.9%	9,271
Pallets (unpainted, unstained, untreated [Clean wood])	0.0%	0.0%	0	0.0%	0.0%	0	3.0%	3.1%	2,733	4.8%	4.9%	6,315	730	3.0%	3.1%	9,778
Pallets (stained, treated)	0.4%	0.5%	280	0.0%	0.0%	0	1.8%	1.8%	1,592	0.6%	0.6%	755	425	0.9%	1.0%	3,053
Pallets (painted only)	0.0%	0.0%	0	0.0%	0.0%	0	0.9%	0.9%	764	0.3%	0.3%	334	204	0.4%	0.4%	1,302
Wood Flooring	1.2%	1.7%	1,016	0.0%	0.0%	0	1.3%	1.3%	1,143	0.8%	0.8%	1,010	305	1.0%	1.1%	3,475
Wood Shakes and Shingles	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0	0.0%	0.0%	0
Composite (plywood)	6.9%	12.4%	7,247	20.4%	25.5%	5,376	11.8%	16.8%	14,915	11.0%	15.8%	20,227	3,983	11.1%	16.2%	51,748
Composite (fiberboard)	0.4%	0.8%	486	2.1%	2.7%	566	2.1%	3.0%	2,700	1.6%	2.3%	2,919	721	1.6%	2.3%	7,391
Particleboard	0.7%	1.2%	728	0.6%	0.7%	152	5.8%	8.2%	7,261	3.2%	4.6%	5,863	1,939	3.5%	5.0%	15,943
Salvageable Wood Fixtures	1.1%	4.1%	2,398	0.0%	0.0%	0	0.1%	0.3%	238	1.2%	3.8%	4,812	64	0.7%	2.3%	7,512
Land Clearing	**0.4%**	**0.2%**	**132**	**0.6%**	**0.3%**	**71**	**1.1%**	**0.8%**	**709**	**3.3%**	**2.7%**	**3,464**	**189**	**1.8%**	**1.4%**	**4,564**
Large Yard Waste	0.0%	0.0%	0	0.3%	0.2%	47	0.7%	0.7%	583	2.6%	2.4%	3,124	156	1.3%	1.2%	3,909
Small Yard Waste, Green Waste	0.4%	0.2%	132	0.3%	0.1%	24	0.3%	0.1%	126	0.6%	0.3%	340	34	0.5%	0.2%	655
Paper	**23.6%**	**6.7%**	**3,894**	**2.1%**	**0.4%**	**81**	**7.7%**	**2.1%**	**1,855**	**8.6%**	**3.4%**	**4,324**	**495**	**10.6%**	**3.3%**	**10,648**
Cardboard	22.6%	5.7%	3,320	2.1%	0.4%	78	6.7%	1.3%	1,189	5.6%	1.1%	1,460	318	8.8%	2.0%	6,364
Miscellaneous Paper	1.1%	1.0%	574	<0.1%	<0.1%	3	1.0%	0.8%	666	3.0%	2.2%	2,864	178	1.7%	1.3%	4,284

[1] The composition of Transfer Station loads disposed at Ecowaste was used as a proxy for the composition of Out-of-Region loads when calculating the estimated annual disposed tonnage at Out-of-Region facilities.

Material Category	Vancouver Landfill						Ecowaste Landfill						Out-of-Region[1]	Regional Average		
	C&D Processing Residuals			Direct Haul C&D Waste			C&D Processing Residuals			Direct Haul C&D Waste			C&D Processing Residuals			
	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)
Plastics	**31.4%**	**28.0%**	**16,381**	**13.4%**	**15.1%**	**3,179**	**14.9%**	**14.4%**	**12,794**	**9.9%**	**7.2%**	**9,188**	**3,416**	**15.8%**	**14.0%**	**44,957**
Polyvinyl Chloride (PVC) Pipes, Hoses, Cable Coatings, and Plumbing	13.1%	0.7%	429	2.1%	0.1%	17	6.0%	0.3%	238	3.3%	0.1%	189	64	6.0%	0.3%	937
Window Assemblies	5.7%	0.3%	188	1.4%	0.1%	12	0.6%	<0.1%	26	2.7%	0.1%	155	7	2.4%	0.1%	387
Vinyl Siding and Flooring	10.9%	23.4%	13,680	7.4%	11.2%	2,353	5.5%	9.4%	8,354	3.1%	5.3%	6,813	2,231	5.6%	10.4%	33,430
Miscellaneous Plastics (Expected to contain Chlorine)	1.7%	3.6%	2,084	2.5%	3.8%	797	2.4%	4.1%	3,633	0.6%	1.0%	1,297	970	1.5%	2.7%	8,780
Sheet or Film Plastic	0.0%	0.0%	0	0.0%	0.0%	0	0.1%	0.1%	53	0.2%	0.1%	184	14	0.1%	0.1%	251
Polystyrene/Styrofoam Packaging	0.0%	0.0%	0	0.0%	0.0%	0	0.2%	0.6%	491	0.2%	0.4%	544	131	0.1%	0.4%	1,167
Miscellaneous Plastics (Expected to contain Chlorine)	<0.1%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	<0.1%	<0.1%	5	0	0.0%	<0.1%	5
Concrete	**0.0%**	**0.0%**	**0**	**2.7%**	**3.4%**	**719**	**0.3%**	**0.5%**	**438**	**1.1%**	**1.5%**	**1,985**	**117**	**0.7%**	**1.0%**	**3,259**
Poured with Rebar	0.0%	0.0%	0	2.2%	2.8%	592	0.0%	0.0%	0	0.4%	0.6%	771	0	0.3%	0.4%	1,362
Poured without Rebar	0.0%	0.0%	0	0.5%	0.6%	127	0.3%	0.5%	438	0.6%	0.9%	1,102	117	0.4%	0.6%	1,785
Preformed Blocks	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0	0.0%	0.0%	0
Residuals	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0.1%	0.1%	112	0	<0.1%	<0.1%	112
Metals	**5.0%**	**8.8%**	**5,132**	**3.1%**	**4.4%**	**936**	**4.2%**	**6.3%**	**5,607**	**4.4%**	**6.8%**	**8,714**	**1,497**	**4.3%**	**6.8%**	**21,887**
Ferrous	1.7%	3.5%	2,041	1.4%	2.0%	412	2.9%	4.7%	4,209	3.0%	4.9%	6,287	1,124	2.6%	4.4%	14,072
Non-ferrous	2.1%	4.3%	2,515	1.7%	2.5%	524	0.8%	1.2%	1,108	1.0%	1.6%	2,041	296	1.2%	2.0%	6,484
Mixed Metals	1.1%	1.0%	576	0.0%	0.0%	0	0.5%	0.3%	290	0.4%	0.3%	387	77	0.6%	0.4%	1,331
Masonry	**0.4%**	**2.9%**	**1,703**	**0.7%**	**3.2%**	**683**	**0.0%**	**0.0%**	**0**	**0.6%**	**1.0%**	**1,232**	**0**	**0.4%**	**1.1%**	**3,619**
Brick	0.1%	0.2%	94	0.3%	0.2%	52	0.0%	0.0%	0	0.5%	0.5%	697	0	0.3%	0.3%	844
Stone	0.0%	0.0%	0	0.3%	2.4%	511	0.0%	0.0%	0	0.0%	0.0%	0	0	<0.1%	0.2%	511
Cinderblocks	0.2%	1.3%	751	0.1%	0.6%	120	0.0%	0.0%	0	<0.1%	0.2%	244	0	0.1%	0.3%	1,116
Marble/Granite Slabs	0.1%	1.5%	857	0.0%	0.0%	0	0.0%	0.0%	0	<0.1%	0.2%	291	0	<0.1%	0.4%	1,148
Asphalt	**0.0%**	0.0%	0	**2.4%**	3.4%	726	**0.6%**	0.9%	798	**5.3%**	8.8%	11,222	213	**2.5%**	4.0%	12,959

Material Category	Vancouver Landfill						Ecowaste Landfill						Out-of-Region[1]	Regional Average		
	C&D Processing Residuals			Direct Haul C&D Waste			C&D Processing Residuals			Direct Haul C&D Waste			C&D Processing Residuals			
	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)
Pavement	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0	0.0%	0.0%	0
Asphalt Shingles and Tarpaper	0.0%	0.0%	0	2.4%	3.4%	726	0.6%	0.9%	798	5.3%	8.7%	11,086	213	2.5%	4.0%	12,823
Tar and Gravel Roofing	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	<0.1%	0.1%	137	0	<0.1%	<0.1%	137
Miscellaneous Building Materials	**2.9%**	**1.5%**	**876**	**2.9%**	**1.6%**	**328**	**4.4%**	**2.4%**	**2,165**	**10.4%**	**2.2%**	**2,845**	**578**	**6.4%**	**2.1%**	**6,792**
Carpet	1.2%	1.2%	700	0.9%	0.6%	133	1.6%	1.3%	1,180	0.9%	0.7%	921	315	1.2%	1.0%	3,250
Underlay	0.1%	0.1%	48	1.1%	0.8%	162	0.9%	0.7%	639	0.4%	0.3%	411	171	0.6%	0.4%	1,432
Linoleum Flooring	0.0%	0.0%	0	0.0%	0.0%	0	<0.1%	<0.1%	35	<0.1%	<0.1%	9	9	<0.1%	<0.1%	54
Drywall	0.0%	0.0%	0	0.0%	0.0%	0	0.1%	0.1%	77	0.3%	0.2%	276	20	0.1%	0.1%	373
Lath and Plaster	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0	0.0%	0.0%	0
Stucco Wall Finishing	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0	0.0%	0.0%	0
Ceiling Tiles	0.1%	0.1%	58	0.0%	0.0%	0	<0.1%	<0.1%	19	0.4%	0.4%	503	5	0.2%	0.2%	585
Insulation	1.5%	0.1%	69	0.9%	0.1%	11	1.7%	0.1%	92	8.4%	0.5%	684	25	4.3%	0.3%	881
Laminate Flooring	0.0%	0.0%	0	<0.1%	0.1%	21	<0.1%	0.1%	122	<0.1%	<0.1%	41	33	<0.1%	0.1%	217
Glass and Ceramics	**0.0%**	**0.0%**	**0**	**0.4%**	**0.2%**	**49**	**0.2%**	**0.7%**	**582**	**1.5%**	**2.7%**	**3,467**	**155**	**0.7%**	**1.3%**	**4,253**
Glass	0.0%	0.0%	0	0.2%	0.1%	22	<0.1%	<0.1%	2	0.8%	0.5%	626	1	0.3%	0.2%	650
Mirror Glass	0.0%	0.0%	0	0.2%	0.1%	27	<0.1%	<0.1%	21	0.1%	0.1%	89	6	0.1%	<0.1%	142
Porcelain	0.0%	0.0%	0	0.0%	0.0%	0	0.1%	0.3%	261	0.3%	1.3%	1,685	70	0.2%	0.6%	2,016
Indoor Tile	0.0%	0.0%	0	0.0%	0.0%	0	0.1%	0.3%	297	0.2%	0.8%	1,024	79	0.1%	0.4%	1,401
Outdoor Tile	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	<0.1%	<0.1%	43	0	<0.1%	<0.1%	43
Rubble/Soil	**0.7%**	**2.8%**	**1,627**	**0.0%**	**0.0%**	**0**	**0.8%**	**2.7%**	**2,366**	**0.3%**	**1.1%**	**1,464**	**632**	**0.5%**	**1.9%**	**6,088**
Rubble/Soil	0.7%	2.8%	1,627	0.0%	0.0%	0	0.8%	2.7%	2,366	0.3%	1.1%	1,464	632	0.5%	1.9%	6,088
Fines	**0.0%**	**0.0%**	**0**	**0.0%**	**0.0%**	**0**	**1.5%**	**0.0%**	**0**	**0.3%**	**0.0%**	**0**	**0**	**0.6%**	**0.0%**	**0**
Fines	0.0%	0.0%	0	0.0%	0.0%	0	1.5%	0.0%	0	0.3%	0.0%	0	0	0.6%	0.0%	0
Household Garbage	**0.6%**	**0.6%**	**339**	**1.0%**	**0.7%**	**157**	**1.5%**	**1.2%**	**1,070**	**2.2%**	**1.8%**	**2,334**	**286**	**1.6%**	**1.3%**	**4,187**
Household Garbage	0.6%	0.6%	339	1.0%	0.7%	157	1.5%	1.2%	1,070	2.2%	1.8%	2,334	286	1.6%	1.3%	4,187
Textiles	**5.4%**	**5.5%**	**3,216**	**0.2%**	**0.2%**	**32**	**4.7%**	**3.8%**	**3,399**	**2.7%**	**2.2%**	**2,833**	**908**	**3.7%**	**3.2%**	**10,387**

Material Category	Vancouver Landfill						Ecowaste Landfill						Out-of-Region[1]	Regional Average		
	C&D Processing Residuals			Direct Haul C&D Waste			C&D Processing Residuals			Direct Haul C&D Waste			C&D Processing Residuals			
	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)	Estimated Annual Disposed Tonnage (tonnes)	Average % by Volume	Average % by Weight	Estimated Annual Disposed Tonnage (tonnes)
Textiles	5.4%	5.5%	3,216	0.2%	0.2%	32	4.7%	3.8%	3,399	2.7%	2.2%	2,833	908	3.7%	3.2%	10,387
Bulky Items	**2.0%**	**2.0%**	**1,188**	**0.0%**	**0.0%**	**0**	**0.2%**	**0.2%**	**178**	**1.2%**	**1.0%**	**1,321**	**47**	**1.0%**	**0.9%**	**2,734**
Bulky Items	2.0%	2.0%	1,188	0.0%	0.0%	0	0.2%	0.2%	178	1.2%	1.0%	1,321	47	1.0%	0.9%	2,734
Rubber	**0.3%**	**0.7%**	**381**	**0.0%**	**0.0%**	**0**	**0.2%**	**0.5%**	**416**	**1.2%**	**2.5%**	**3,174**	**111**	**0.6%**	**1.3%**	**4,083**
Tires, Tubing	0.3%	0.7%	381	0.0%	0.0%	0	0.2%	0.5%	416	1.1%	2.2%	2,781	111	0.6%	1.2%	3,690
Rubber Roofing	0.0%	0.0%	0	0.0%	0.0%	0	0.0%	0.0%	0	0.1%	0.3%	393	0	0.1%	0.1%	393
Miscellaneous	**1.5%**	**1.9%**	**1,132**	**0.8%**	**0.7%**	**141**	**0.5%**	**0.5%**	**445**	**2.8%**	**2.8%**	**3,634**	**119**	**1.6%**	**1.7%**	**5,471**
Miscellaneous	1.5%	1.9%	1,132	0.8%	0.7%	141	0.5%	0.5%	445	2.8%	2.8%	3,634	119	1.6%	1.7%	5,471
Total	**100.0%**	**100.0%**	**58,526**	**100.0%**	**100.0%**	**21,069**	**100.0%**	**100.0%**	**88,740**	**100.0%**	**100.0%**	**128,099**	**23,696**	**100.0%**	**100.0%**	**320,131**

Note: Percentages were rounded to the nearest 0.1% and may not add to 100.0%. Tonnages were rounded to the nearest whole number and may not add to the total tonnage.