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Environment Statistics Program

Waste Management Industry Survey Business Sector 1995



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Waste Management Industry Survey: Business Sector, 1995

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Symbols

The following are standard symbols used in Statistics Canada publications:

- .. figures not available
- ... figures not appropriate or applicable
- nil or zero
- amount too small to be expressed
- x confidential to meet secrecy requirement of the *Statistics Act*

Preface

This report presents the results of the 1995 *Waste Management Industry Survey: Business Sector*. This survey gathered information on the financial characteristics and waste management activities undertaken by business sector companies that provided waste management services in 1995.

These services included the collection and transportation of waste and of materials destined for recycling, the operation of non-hazardous waste disposal facilities, the operation of transfer stations and the treatment and disposal of wastes deemed to be hazardous.

This is the third time the business sector of the waste management services industry has been surveyed; a pilot survey was undertaken in 1989 and there was a subsequent survey in 1994.

The 1995 *Waste Management Industry Survey: Business Sector* is one component of several at Statistics Canada that, taken together, will contribute a more complete set of information about waste and waste management than has been available to date.

Acknowledgements

The contributions of the respondents and industry groups were critical to the successful completion of the survey and are gratefully acknowledged.

This report was prepared by the Environment Statistics Programme, Claude Simard, Director and Cynthia Baumgarten, Assistant Director. Data collection for the survey was conducted by the Operations and Integration Division (L. Boucher, Director) and the Environment Statistics Program. Bruce Mitchell, Senior Research Officer, Environment Statistics Program, managed the project.

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1 The Waste Management Industry: Business Sector

1.1 Introduction

Waste statistics have an important role in the Environmental Statistics Program of Statistics Canada. One of the program's objectives is to develop a complete set of statistics on waste management. This covers all waste management activities, (and describes physical and monetary flows), undertaken in all sectors of the economy.

One element of this work is the *Waste Management Industry Survey: Business Sector*. The survey gathered information on the revenues, expenditures and number of employees of business sector companies that provided waste management services in 1995. Information was also collected on the types of services provided and the amounts and types of materials handled in waste management activities.

Waste management services include the collection and transportation of waste and of materials destined for recycling or reuse, the operation of non-hazardous waste disposal facilities, the operation of transfer stations and the treatment and disposal of wastes deemed to be hazardous. Typically these services are provided on a contract basis to clients, however payment per service is also common.

In 1995, revenues of the business sector of the waste management industry totalled \$2,604 million. Operating expenses amounted to \$2,214 million and capital expenditures were \$228 million.

The largest companies, (as determined by the number of employees), earned the bulk of industry revenues. The largest 65 of the 1,492 companies earned 63 percent of the revenue total.

Waste management companies reported 18,078 full time employees in 1995. Fifty-three percent were employed in the largest 65 companies. Thirty percent of the total employment in the sector can be attributed to small businesses with fewer than 20 employees.

The companies in the 1995 survey reported collecting and transporting 14.6 million tonnes of non-hazardous waste for disposal and 2.7 million tonnes of materials for recycling or reuse.

1.2 Other components of the waste management industry

Within the waste management industry there is also a component operated by governments using government employees. Some waste collection programs and many disposal facilities are operated by governments. Statistics Canada also conducts a survey of government waste management practices titled the *Waste Management Industry Survey: Government Sector*. Together, these two surveys provide a relatively complete picture of waste management services in Canada.

The 1995 survey of the business sector did not include the activities of wholesale trade companies whose principal source of revenue is the resale of recycled or previously used materials. This group includes scrap metal dealers as well as many other recyclers. Information on this industry is collected through the *Survey of Wholesale Trade*. For 1994, the wholesale trade of previously used materials generated total revenues of \$2,490 million.

The *Waste Management Survey: Business Sector* does not cover wastes managed directly by the generator. For example, wastes created by a pulp and paper mill or a smelter may be managed by the company on site or in other company run-facilities without the assistance of separate service providers. Some information in this regard may be available where particular wastes are subject to reporting requirements as part of specific provincial or federal regulatory programs.

While Statistics Canada does not collect the amounts of waste managed directly by the generating business, the agency does collect information on expenditures that businesses incur to manage these wastes through the *Survey of Environmental Protection Expenditures* (Statistics Canada, 1996a). Preliminary estimates indicate that, in 1995, businesses spent \$438 million on waste management and sewerage services.

Households often manage some waste materials themselves. Many households, for example, now have backyard composters that handle at least a portion of home and garden organic wastes. Statistics Canada collected information on the number of households with composting in the 1994 *Household Environment Survey* (Statistics Canada, 1995).

1.3 Developing information on waste management

The 1995 *Waste Management Industry Survey: Business Sector* asked companies to report information for their waste management activities by province. All companies with 5 or more employees or with operating revenues of \$500,000 or more were included. For those firms not included in the survey because of their small size, administrative data from Statistics Canada's Business Register were used to estimate their contribution to the industry. This included information on total operating revenues and total employment.

The waste management industry, both the business and the government sectors, plays an important economic role in addition to their obvious environmental one. When compared to the largest economic sectors of Canada's economy, this is a comparatively small and specialised service sector. Yet, the waste management industry is an important employer and important purchaser of goods and services. The industry is also a very dynamic one. Major changes in company operations, ownership, acquisitions and coverage areas have occurred in the past ten years.

1.4 Defining waste and its components

Waste management activities take many different forms and involve many different participants. This presents challenges when trying to prepare an integrated picture of activities, including the total materials managed.

One common thread is that all the materials handled are unwanted by their producer. The unwanted materials may be by-products of some sort of production process - fly ash from a furnace for example. Alternatively they might be products, the inherent value of which has been consumed from the perspective of the current holder - for example, a newspaper that has been read or a package that has been opened and emptied of its contents.

Concepts and definitions in the waste management area are still evolving. The most common source of difficulty is in classifying waste. Strategies to compile waste statistics reflect the specific needs of statistical and analytical projects: by type (municipal solid waste, hazardous waste); by generator (residential, industrial); by generating activity (construction and demolition) as well as by material. The differences in the terminology that the various respondents use can create many operational difficulties when surveys are in the field. In conducting the 1995 *Waste Management Industry Survey: Business Sector*, valuable suggestions were made on how to refine the classification and this has been taken into account

while developing the 1996 edition of the questionnaire.

1.5 Definitions

Construction and demolition waste (C&D)

Includes waste materials from the construction and demolition of roads, bridges and buildings such as asphalt, concrete, rubble, wood, gypsum and metal.

Disposal facility

A facility at which waste is landfilled, incinerated or treated for final disposal.

Hazardous waste

Includes all materials designated as hazardous, due to its nature or quantity, and requiring special handling techniques as specified by the Transportation of Dangerous Goods Regulations (1985), The Canadian Environmental Protection Act (1988), The Basel Convention (1989) and the Export and Import of Hazardous Waste Regulations (1992).

Institutional, commercial and industrial (IC&I) waste

Includes materials from sources such as heavy and light industry, manufacturing, warehousing, transportation, retail and wholesale commercial activities, restaurants, offices, educational or recreational facilities, health and other service facilities.

Materials for recycling or reuse

Materials managed for processing into new products or cleaned and treated for reuse by other than the generator.

Preparing materials for recycling or reuse

Includes sorting, cleaning and reducing volume of recyclable or reusable materials.

Tipping fee

A sum paid to the owner or operator of a disposal facility or a transfer station in return for accepting the material at the facility.

Transfer station

A facility at which wastes transported by vehicles involved in collection are transferred to other vehicles that will transport the wastes to the point of final disposal, recycling or reuse.

Waste

All materials unwanted by their generator. This includes all materials that are intended for recycling, treatment or disposal that are removed without, or with only nominal, remuneration to the waste generator.

Waste for disposal

All materials not wanted by their generator and which are discarded for management at waste disposal facilities (excludes materials destined for recycling).

2 Survey Results

2.1 Financial summary

Table 2.1 presents a summary of financial statistics for the *Waste Management Industry: Business Sector* for 1995.

Revenues of the business sector of the waste management industry totalled \$2,604 million in 1995. Operating expenditures in the year amounted to \$2,214 million and capital expenditures were \$228 million.

Companies operating in Ontario reported \$1,128 million in revenues, 43 percent of the national revenues for the business sector of the waste management industry. Quebec reported an additional 27 percent the total. British Columbia had the third highest revenue level, closely followed by Alberta.

At the national level, per company revenues averaged \$1.8 million. Provincially, Ontario reported the highest per company revenues at \$2.9 million while those firms in Alberta averaged \$2.5 million and those in British Columbia had per company revenues of \$1.4 million.

The concentration of the industry among a limited number of large companies is also evident from the data presented in Table 2.1. The 65 largest companies (those with 50 or more employees) from the 1,492 companies included in the total, reported 63 percent of the revenue total. The 1,321 small companies with under 20 employees account for only about 22 percent of the revenues. Medium-size firms (with between 20 and 49 employees) reported 15 percent of the industry revenue while comprising 7 percent of the number of companies.

There are marked variations between levels of capital expenditures across the provinces. With an average of \$216 thousand, companies operating in Alberta reported the highest per company level of capital expenditures with firms in Ontario (\$201 thousand) following close behind. Firms operating in Newfoundland (\$38 thousand), the Northwest and Yukon Territories (\$42 thousand), and Nova Scotia (\$42 thousand) had the lowest per company levels of capital expenditures.

2.2 Waste management activities

Waste management companies provide a number of services. The 1995 survey asked respondents to report which specific service(s) they provided. Table 2.2 presents the percentage of companies involved in each of the waste management activities covered in the survey. Note that there are more activities than companies since many companies engage in more than one activity (see Table 2.3).

The collection and transportation of wastes for disposal and materials for recycling or reuse were the primary activities reported by the industry. Seventy-seven percent of the waste management companies reported waste collection and transportation activities while 48 percent reported that they collected and transported materials for recycling or reuse. The preparation of materials for recycling or reuse was another activity reported frequently, followed by the operation of a transfer facility.

The size of the company appears to be related to the type of activities that are performed. Most (78 percent) of the small firms reported involvement in the collection and transportation of waste for disposal, or of materials for recycling or reuse (45 percent). Yet less than 8 percent managed hazardous waste, or operated a disposal or transfer facility. In contrast, 22 percent of the large firms managed hazardous waste, 17 percent operated a disposal facility and 32 percent operated a transfer facility.

The size of the company also appears to have a bearing on the number of waste management activities that are performed by the company. In total, 53 percent of the companies reported carrying out more than one waste management activity (Table 2.3). Twenty-two percent of the companies reported three or more activities. But among small companies, 52 percent reported only one operation while only 17 percent reported three or more activities. In contrast, 43 percent of large companies reported three or more activities and only 24 percent indicated just one activity. Thirty-four percent of medium-size companies reported three or more activities while 35 percent said they conducted only one.

Table 2.1
Financial Statistics¹, 1995

Province/Territory	Companies ²	Operating revenue	Operating expenses	Capital expenditures
	number	thousand dollars		
Newfoundland	42	23 322	21 195	1 592
Prince Edward Island	14	10 517	10 167	x
Nova Scotia	83	49 763	45 726	3 495
New Brunswick	60	30 945	26 584	x
Quebec	519	704 912	609 215	66 752
Ontario	385	1 128 298	924 890	77 345
Manitoba	36	36 697	28 927	3 301
Saskatchewan	39	22 694	17 948	6 363
Alberta	109	275 195	241 633	23 554
British Columbia	222	316 688	283 004	27 741
Yukon and Northwest Territories	11	5 285	4 341	460
Employment size group				
Under 20 employees	1 321	572 495	494 862	68 848
20 to 49 employees	106	388 433	323 794	27 434
50 and more employees	65	1 643 387	1 394 972	131 714
Canada²	1 492	2 604 315	2 213 628	227 996

Notes:

1. These data represent the entire business sector of the waste management industry.
2. As companies may operate in more than one province, the national count will not equal the sum of the provincial count of companies.
- x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

Table 2.2
Waste Management Activities Conducted¹, 1995

Province/Territory	Collect and transport for disposal	Collect and transport of recycling or reuse	Operate a waste treatment facility	Operate a disposal facility ² hazardous waste	Manage	Prepare materials for recycling/reuse	Other activities ³
	percentage of companies reporting ⁴						
Newfoundland	92	54	8	8	8	31	8
Prince Edward Island	80	20	20	20	-	20	-
Nova Scotia	88	61	5	5	2	24	2
New Brunswick	76	43	19	14	10	33	5
Quebec	76	41	9	18	11	22	6
Ontario	71	57	21	6	9	36	4
Manitoba	83	33	17	-	17	28	11
Saskatchewan	93	50	7	7	7	21	7
Alberta	77	42	15	12	13	35	7
British Columbia	79	50	5	4	5	26	7
Yukon and Northwest Territories	100	14	-	14	-	-	-
Employment size group							
Under 20 employees	78	45	8	6	5	23	6
20 to 49 employees	67	55	23	7	16	38	9
50 and more employees	75	61	32	17	22	42	10
Canada	77	48	13	7	8	27	7

Notes:

1. This table presents the percentage of companies reporting each of the indicated waste management activities and represents only the surveyed portion of the population.
2. This category includes the operation of landfills and/or incinerators.
3. The *other activities* category includes consulting, sewage treatment or containment, and the sale of recovered materials.
4. Percentages will add to more than 100 because companies can conduct more than one activity.

Source:

Statistics Canada, Environment Statistics Program.

Table 2.3

Number of Activities Reported by Waste Management Companies¹, 1995

Province/Territory	Activities reported				
	One	Two	Three	Four	Five or more
	percentage of companies				
Newfoundland	38	31	23	-	8
Prince Edward Island	60	20	20	-	-
Nova Scotia	39	41	15	2	2
New Brunswick	43	29	24	-	5
Quebec	52	25	16	4	4
Ontario	40	32	15	8	5
Manitoba	50	22	17	11	-
Saskatchewan	50	29	14	-	7
Alberta	40	37	10	10	3
British Columbia	50	34	11	4	2
Yukon and Northwest Territories	71	29	-	-	-
Employment size group					
Under 20 employees	52	31	12	4	1
20 to 49 employees	35	31	18	11	5
50 and more employees	24	32	20	8	15
Canada²	47	31	14	5	3

Notes:

1. This table presents, by province and by firm size, companies classified by the number of waste management activities that they conduct. This is expressed as a percentage of the total number of companies.

2. This information covers only those companies that were surveyed.

Source:

Statistics Canada, Environment Statistics Program.

2.3 Revenues and source activity

Details on waste management revenues by type of activity for the surveyed businesses are presented in Table 2.4. Revenue by type of activity are not available for the non-surveyed portion of the sector. Collection and transportation activities, both for disposal and for recycling or reuse, were by far the largest source of revenues for the surveyed business sector of the waste management industry. Fifty-eight percent of total revenues came from this source. The second ranking activity, in terms of revenue generated, was the operation of a disposal facility. This activity accounted for about 11 percent of the revenues. Hazardous waste management accounted for another 10 percent of total revenues.

The surveyed firms reported that collection and transportation revenues made up the largest share of the total on a province by province basis. At least 54 percent of total operating revenues were reported to be derived from the collection and transportation activities for all provinces except Alberta. Companies from Newfoundland and Nova Scotia reported the highest proportions of revenues from this source (80 and 77 percent respectively). Alberta is the lone exception to this dominance of collection and transportation activities. Companies in Alberta reported only 45 percent from this source. But when compared to firms in other provinces, Alberta businesses indicated the highest percentage of revenues obtained from the management of hazardous wastes (21 percent).

When examining the company size groups, one finds that the small companies, as a group, had a higher proportion of total revenue derived from collection and

transportation activities. However, for hazardous waste management, only slightly more than 1 percent of small company revenue was derived from this source compared to 13 percent for large companies.

An examination of the distribution of revenues within the hazardous waste management category further reveals that only 2 percent of the total came from small firms while 9 percent was reported by medium-size companies and 89 percent came from large firm activities.

The limited participation of small and medium-size firms in hazardous waste management may reflect the large capital investments required for the management of certain types of hazardous wastes.

2.4 Revenues and client source

Table 2.5 presents details of the source of revenues for companies reporting collection and transportation activities. The majority of revenues for collection and transportation came from institutional, commercial and industrial (IC&I) clients. Sixty-three percent come from this source while 17 percent of revenues came from governments and 15 percent from households.

Among the provinces, the predominant source of revenues was the IC&I sector, followed by the government and households sectors.

In terms of company size, medium and large companies received a greater portion of their revenues from households than small firms, perhaps indicating the dominance of these companies in the provision of services to apartments and condominiums.

Table 2.4

Operating Revenues by Source Activity, 1995

Province/Territory	Surveyed portion							All companies ²	
	Collect and transport for disposal	Collect and transport for recycling or reuse	Operate a waste transfer facility	Operate a disposal facility	Manage hazardous waste	Prepare materials for recycling or reuse	Other revenues ¹	Total revenues	Total revenues
	thousand dollars								
Newfoundland	13 552	1 409	x	x	x	952	850	18 765	23 322
Prince Edward Island	4 413	x	-	x	-	x	-	9 689	10 516
Nova Scotia	28 032	4 322	x	x	x	3 030	x	41 801	49 763
New Brunswick	13 628	1 242	2 423	x	x	5 280	94	26 732	30 945
Quebec	252 132	53 031	39 544	92 903	73 092	27 184	24 315	562 200	704 912
Ontario	464 575	126 392	94 105	101 527	88 131	103 312	48 728	1 026 770	1 128 298
Manitoba	26 119	x	x	-	x	x	x	35 091	36 697
Saskatchewan	9 500	1 673	x	x	x	x	x	17 156	22 694
Alberta	97 165	22 790	x	44 864	56 369	14 021	x	264 070	275 195
British Columbia	167 608	34 037	7 864	x	x	31 291	17 664	284 254	316 688
Yukon and Northwest Territories	4 829	x	-	x	-	-	-	5 021	5 285
Employment size group									
Under 20 employees	224 218	45 804	13 048	45 250	5 262	33 713	18 453	385 748	572 495
20 to 49 employees	117 081	50 248	20 123	35 076	20 637	44 251	15 721	303 136	388 433
50 and more employees	740 251	150 443	125 024	181 947	211 732	110 611	82 654	1 602 661	1 643 387
Canada	1 081 550	246 495	158 195	262 273	237 631	188 575	116 828	2 291 545	2 604 315

Notes:

Figures may not add due to rounding.

1. Other revenues include, but are not limited to, consulting, sewage treatment or containment, and the sale of recovered materials.

2. Includes administrative data for firms that were below the threshold for the survey.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

Table 2.5

Sources of Revenue for Companies Reporting Collection and Transportation Activity¹, 1995

Province/Territory	Governments	Households	Institutional, commercial and industrial	Other	Total	Collection and transport revenue for disposal and recycling or reuse
						thousand dollars
	percent					
Newfoundland	22	x	71	x	100	14 961
Prince Edward Island	x	x	x	-	100	x
Nova Scotia	20	x	62	x	100	32 354
New Brunswick	15	9	66	9	100	14 870
Quebec	22	10	66	2	100	305 163
Ontario	15	17	63	5	100	590 967
Manitoba	17	x	70	x	100	27 398
Saskatchewan	27	x	64	x	100	11 173
Alberta	20	7	60	13	100	119 955
British Columbia	13	12	72	4	100	201 645
Yukon and Northwest Territories	x	x	x	x	100	x
Employment size group						
Under 20 employees	19	12	63	7	100	270 022
20 to 49 employees	17	20	60	3	100	167 329
50 and more employees	17	16	64	4	100	890 694
Canada	17	15	63	4	100	1 328 045

Notes:

Figures may not add due to rounding.

1. This information covers only those companies which were surveyed and reported collection and transportation activity.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

2.5 Operating expenditures

A breakdown of the operating expenses of the surveyed companies is shown in Table 2.6. At the national level, wages, salaries and benefits were the largest category of expenses (30 percent), followed by tipping fees paid to waste disposal facilities (24 percent). The other expenses category (including licenses and permits as well as lease and rental payments for property such as waste disposal sites and transfer stations) was the third largest category at 15 percent of the total.

On a provincial basis, wages, salaries and benefits were the first ranked expense for all provinces except for Newfoundland. Companies in British Columbia reported roughly an even split between wages, salaries and benefits and tipping fees. Firms in Saskatchewan (38 percent) and Manitoba (36 percent) directed the largest portion of their total expenses to wages, salaries and benefits, while firms in Newfoundland, New Brunswick, Quebec and Alberta (28 to 29 percent), reported the lowest proportional allocation to this expense category. At 16 percent of total expenditures, tipping fees in Alberta were much lower than the national average. Tipping fee expenses in British Columbia and Manitoba were above the national average (30 percent of total expenses for both provinces).

For the large companies, wages, salaries and benefits were the largest expense (29 percent) while tipping fees were a close second (25 percent). The small firms spent 32 percent of their total expenses on compensation and benefits and 20 percent on tipping fees.

2.6 Capital expenditures

On average, waste management companies directed the largest proportion (31 percent) of capital expenditures towards machinery and equipment excluding vehicles. Companies reported that expenditures on vehicles was their second highest capital expenditure item with 28 percent of the total.

Waste management companies in Ontario and Quebec had the highest levels of capital expenditures, followed by those in British Columbia and Alberta respectively.

On average, each large firm allocated \$2.0 million to capital expenditures, while the average capital expenditure level of small firms reached an average of only \$52 thousand per firm.

On a firm size by capital expenditure allocation basis, companies of all sizes reported roughly the same proportions of total capital expenditures directed toward vehicles (24 to 28 percent), but small firms tended to direct their capital expenditures to other machinery and equipment more than the large or medium-size businesses. The opposite is true when one examines the other capital expenditures category by firm size. Medium and large firms allocated a higher proportion of their total capital outlay to this target than did the small companies. This category included, for example, property acquisitions, waste containers and other items that cannot be categorised elsewhere.

Table 2.6

Operating Expenses, 1995

Province/Territory	Surveyed portion								All companies ²
	Wages, salaries and benefits	Fuel and electricity	Other materials	Maintenance and repairs	Depreciation	Tipping fees paid	Other expenses ¹	Total operating expenses	Total operating expenses
	thousand dollars								
Newfoundland	4 837	685	1 713	1 515	1 499	4 960	1 943	17 141	21 195
Prince Edward Island	3 341	461	1 637	917	x	1 600	x	9 441	10 167
Nova Scotia	12 284	1 203	3 889	3 203	3 272	8 202	6 585	38 638	45 726
New Brunswick	6 178	666	731	2 386	1 476	4 682	6 770	22 889	26 584
Quebec	137 926	18 924	59 420	35 185	41 195	91 228	97 329	481 207	609 215
Ontario	247 033	31 835	98 622	61 703	72 004	222 694	99 658	833 550	924 890
Manitoba	9 886	864	568	3 147	2 037	8 373	2 644	27 518	28 927
Saskatchewan	4 880	594	1 254	922	1 053	2 749	1 540	12 992	17 948
Alberta	64 838	7 579	36 384	12 712	30 932	36 198	43 142	231 784	241 633
British Columbia	77 499	7 038	17 870	21 196	19 262	77 048	34 117	254 040	283 004
Yukon and Northwest Territories	1 738	270	307	340	x	471	x	4 109	4 341
Employment size group									
Under 20 employees	106 326	18 263	30 996	26 076	27 003	64 841	55 549	329 054	494 862
20 to 49 employees	72 648	11 164	36 714	18 264	18 261	48 656	40 609	246 316	323 794
50 and more employees	391 464	40 693	154 686	98 884	128 574	344 708	198 930	1 357 939	1 394 972
Canada³	570 439	70 120	222 395	143 225	173 837	458 205	295 088	1 933 309	2 213 628

Notes:

Figures may not add due to rounding.

1. *Other expenses* category includes leases, rentals, overhead, freight, insurance and licenses or permits.

2. Includes administrative data for firms that were below the threshold for the survey.

3. As companies may operate in more than one province, the national totals will not equal the sum of the provincial totals.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

Table 2.7

Capital Expenditures, 1995

Province/Territory	Surveyed portion					Total capital expenditures	All companies ¹ Total capital expenditures
	Vehicles	Other machinery and equipment	Construction	Maintenance and repairs	Other capital expenditures		
	thousand dollars						
Newfoundland	158	140	402	x	x	1 201	1 592
Prince Edward Island	77	109	62	x	x	x	377
Nova Scotia	1 360	712	309	387	46	2 814	3 495
New Brunswick	517	x	x	10	x	x	17 016
Quebec	15 898	21 161	11 485	1 099	5 750	55 393	66 752
Ontario	23 665	14 526	15 125	2 123	14 053	69 492	77 345
Manitoba	491	x	x	47	x	3 146	3 301
Saskatchewan	1 244	x	x	x	x	5 912	6 363
Alberta	4 814	7 350	5 355	338	4 702	22 558	23 554
British Columbia	7 652	6 604	6 851	1 362	2 581	25 051	27 741
Yukon and Northwest Territories	x	40	37	x	x	435	460
Employment size group							
Under 20 employees	14 610	21 316	12 295	2 598	1 750	52 570	68 848
20 to 49 employees	5 221	7 689	2 570	1 510	4 466	21 456	27 434
50 and more employees	36 386	33 232	33 739	1 386	24 143	128 885	131 714
Canada²	56 216	62 237	48 604	5 494	30 359	202 911	227 996

Note:

Figures may not add due to rounding.

1. Includes administrative data for firms that were below the threshold for the survey.

2. As companies may operate in more than one province, the national totals will not equal the sum of the provincial totals.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

2.7 Employment

Waste management companies reported 18,078 full-time and 829 part-time employees (Table 2.8). Thirty-seven percent were employed in Ontario while 29 percent of the total worked in Quebec. British Columbia (13 percent) and Alberta (10 percent) also had relatively substantial shares of the total business sector waste management employment.

Although there were far fewer large waste management firms than small and medium-size ones, they employed most of the sector's labour force. These companies employed 53 percent of the workers in the private waste management sector, despite constituting only 4 percent of the total number of firms. By contrast, the small firms, despite making up 89 percent of the total number of firms in the sector, employed only 30 percent of the work force.

Table 2.8

Employment, 1995

Province/Territory	Companies ¹	Full-time employees ²	Part-time employees	Total employees
Newfoundland	42	279	9	288
Prince Edward Island	14	x	x	129
Nova Scotia	83	615	33	648
New Brunswick	60	283	31	314
Quebec	519	5 348	194	5 542
Ontario	385	6 624	312	6 936
Manitoba	36	260	33	293
Saskatchewan	39	270	7	277
Alberta	109	1 907	32	1 939
British Columbia	222	2 317	169	2 487
Yukon and Northwest Territories	11	x	x	55
Employment size group				
Under 20 employees	1321	5 351	437	5 788
20 to 49 employees	106	3 118	97	3 215
50 and more employees	65	9 609	295	9 904
Canada	1492	18 078	829	18 907

Notes:

Figures may not add due to rounding.

1. As companies may operate in more than one province, the national totals will not equal the sum of the provincial totals.

2. All employees from administrative data were counted as full time employees.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

2.8 Number of companies by employment size

Of the 1,492 waste management companies, 1,321 (89 percent) had under 20 employees, 106 (7 percent) employed between 20 and 49 persons and 65 (4 percent) had 50 or more employees (Table 2.9).

Quebec had the largest number of waste management companies (519) operating within its borders. Ontario was second with 385 and British Columbia (222) and Alberta (109) were third and fourth respectively. The majority of the large companies had operations in Ontario. Twenty-eight of the 65 large companies operated there. Twenty-three of the 65 large companies operated in Quebec.

The proportion of large companies in Alberta was high when compared to the national average. For example, 12 percent of the firms in Alberta had 49 or more employees, but on a Canada-wide basis, only 4 percent of firms had more than 49 employees. Small companies made up 80 percent of the Alberta total compared to 89 percent nationally.

2.9 Collection and transportation for disposal

Surveyed companies in the business sector of the waste management industry (who reported collection and transportation activities) collected and transported 14.7 million tonnes of non-hazardous waste destined for disposal in 1995 (Table 2.10). This included 6.8 million tonnes of household waste, 7.1 million tonnes of industrial, commercial and institutional (IC&I) waste and 0.8 million tonnes of construction and demolition (C&D) waste.

Firms in Ontario collected and transported 57 percent of the national total of non-hazardous waste, followed by Quebec with 22 percent.

Broken down by source, Prince Edward Island firms reported the largest proportion of household waste collected and transported for disposal when compared to IC&I and C&D sources for businesses in that province. Seventy-four percent of the total non-hazardous wastes collected and transported by businesses in that province came from household sources as compared to 52 percent in Ontario and 46 percent in the nation as a whole.

The large companies collected and transported 42 percent of the household waste and 69 percent of the IC&I waste in Canada. The companies with fewer than 20 employees collected only 11 percent of the household waste and 14 percent of the IC&I waste. Small firms had a strong presence in the C&D sector by collecting and transporting 36 percent of the total volume of C&D waste nationally while the medium-size and large firms handled 22 and 41 percent respectively.

Table 2.9

Number of Companies by Employment Size Group¹, 1995

Province/Territory	Companies	Under 20	20 to 49	50 and more	Under 20	20 to 49	50 and more
		employees	employees	employees	employees	employees	employees
		number of companies			percent		
Newfoundland	42	38	2	2	90	5	5
Prince Edward Island	14	11	3	-	79	21	-
Nova Scotia	83	73	9	1	88	11	1
New Brunswick	60	58	2	-	97	3	-
Quebec	519	461	35	23	89	7	4
Ontario	385	325	32	28	84	8	7
Manitoba	36	33	1	2	92	3	6
Saskatchewan	39	37	1	1	95	3	3
Alberta	109	87	9	13	80	8	12
British Columbia	222	198	16	8	89	7	4
Yukon and Northwest Territories	11	11	-	-	100	-	-
Canada²	1 492	1 321	106	65	89	7	4

Notes:

Figures may not add due to rounding.

1. Includes administrative data for firms that were below the threshold of the survey.

2. As companies may operate in more than one province, the national count of companies will not equal the provincial count of companies.

Source:

Statistics Canada, Environment Statistics Program.

Table 2.10

Non-Hazardous Materials Collected and Transported for Disposal by Type¹, 1995

Province/Territory	Household	Industrial, commercial and institutional	Construction and demolition	Total non-hazardous waste
	thousand tonnes			
Newfoundland	x	34	x	75
Prince Edward Island	70	x	x	94
Nova Scotia	105	186	7	298
New Brunswick	46	83	6	135
Quebec	1 306	1 615	278	3 199
Ontario	4 363	3 725	320	8 408
Manitoba	x	155	x	250
Saskatchewan	50	55	x	106
Alberta	321	463	28	812
British Columbia	371	773	109	1 253
Yukon and Northwest Territories	8	x	x	18
Employment size group				
Under 20 employees	761	965	282	2 008
20 to 49 employees	3 150	1 265	172	4 587
50 and more employees	2 842	4 893	319	8 054
Canada²	6 753	7 123	773	14 649

Note:

Figures may not add due to rounding.

1. This information covers only those companies who were surveyed and reported collection and transportation activity.

2. As companies may operate in more than one province, the national totals will not equal the sum of the provincial totals.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

2.10 Collection and transport for recycling / reuse

Waste management companies collected and transported 2.7 million tonnes of materials for recycling and / or reuse in 1995 (Table 2.11). Of this total, IC&I materials constituted 72 percent of the total while household materials made up 24 percent and materials from C&D activities totalled 4 percent. Companies from Ontario reported a total of 1.8 million tonnes of materials collected and transported for recycling and or reuse. This represents two-thirds of the national total.

Large companies tended to dominate in this sector with these firms reporting 60 percent of the national total. Large firms were particularly dominant in handling materials from the household sector. Seventy-nine percent of the national total of this sector was collected by large firms. Large companies also handled 56 percent of the materials from the IC&I sector and 60 percent of the total material from all the sectors. In contrast, small firms outstripped medium and large firms by a margin of almost two to one in terms of total materials collected and transported for recycling or reuse from C&D sources.

Table 2.11

Materials Collected and Transported for Recycling and/or for Reuse¹, 1995

Province/Territory	Household	Industrial, commercial and institutional	Construction and demolition	Total materials collected and transported
	thousand tonnes			
Newfoundland	x	21	x	24
Prince Edward Island	x	x	x	x
Nova Scotia	x	36	x	58
New Brunswick	x	28	x	36
Quebec	179	158	17	354
Ontario	312	1 409	79	1 800
Manitoba	10	x	x	28
Saskatchewan	x	12	x	16
Alberta	x	84	x	125
British Columbia	62	196	9	267
Yukon and Northwest Territories	x	x	x	x
Employment size group				
Under 20 employees	47	752	68	867
20 to 49 employees	86	112	16	214
50 and more employees	509	1 102	22	1 633
Canada²	642	1 965	106	2 713

Notes:

Figures may not add due to rounding.

1. This information covers only those companies who were surveyed and who reported collection and transportation activity.

2. As companies may operate in more than one province, the national totals will not equal the sum of the provincial totals.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

2.11 Disposal activity

Businesses reported disposing of 7.2 million tonnes of non-hazardous waste in their facilities. Of this, 7.0 million tonnes was landfilled and 0.2 million tonnes was incinerated.

2.12 Transfer stations

Transfer stations operated by firms in the business sector of the waste management industry reported that they handled 3.0 million tonnes of materials in 1995.

2.13 Preparing materials for recycling or reuse

In 1995, the business sector of the waste management industry handled 1.8 million tonnes of materials for recycling or reuse. This included 456 thousand tonnes of newsprint and fine paper, 386 thousand tonnes of corrugated cardboard, 97 thousand tonnes of various metals, 97 thousand tonnes of wood, 95 thousand tonnes of plastic, 93 thousand tonnes of oils and solvents and 83 thousand tonnes of glass (Table 2.12).

Companies from Ontario reported the highest share of waste prepared for recycling or reuse with 52 per cent the national total. Firms operating in Quebec (21 percent) and British Columbia (15 percent) also had substantial shares of the total volume of materials prepared.

2.14 Hazardous waste management

Companies reporting hazardous waste treatment and disposal handled 604 thousand tonnes of materials for treatment or disposal. This included 293 thousand tonnes that were treated, 123 thousand tonnes that were incinerated, 135 thousand tonnes that were disposed of in secure landfills and 54 thousand tonnes dealt with by other methods.

These data do not include volumes of hazardous waste materials that were treated by the source company on-site. Nor do they include those materials that were transported off-site for recycling or reuse purposes, such as energy generation. Finally, it is important to note that these data do not represent the volumes of hazardous waste generated at source, but are only those materials that the business sector of the waste management industry reported to have treated or disposed.

Table 2.12

Materials Prepared for Recycling or Reuse by Type¹, 1995

Province/Territory	Newsprint and fine paper	Corrugated cardboard	Glass	Ferrous and nonferrous metals ²	Aluminum	Wood	Plastic	Oils and solvents	Other materials ³	Total
tonnes										
Newfoundland	x	x	x	x	x	x	x	x	x	37 996
Prince Edward Island	x	x	x	x	x	x	x	x	x	x
Nova Scotia	12 527	5 538	2 160	2 663	839	1 055	1 215	506	5 273	31 776
New Brunswick	x	x	x	230	x	x	818	x	11 378	25 830
Quebec	130 397	90 569	23 097	10 614	28 667	7 539	15 430	2 782	68 026	377 122
Ontario	228 390	217 704	42 868	51 167	20 787	29 189	35 036	63 356	259 437	947 934
Manitoba	x	x	x	x	x	x	x	x	x	20 596
Saskatchewan	x	x	x	x	x	x	x	x	x	x
Alberta	28 921	11 384	4 120	7 382	2 475	1 939	1 747	5 936	15 556	79 460
British Columbia	33 908	28 891	6 429	22 062	4 271	50 505	x	1 782	86 655	274 380
Yukon and Northwest Territories	x	x	x	x	x	x	x	x	x	x
Employment size group										
Under 20 employees	20 045	28 164	5 221	21 410	11 465	44 083	47 992	9 722	241 155	429 257
20 to 49 employees	107 855	44 303	12 644	25 584	24 045	4 049	9 576	24 079	21 965	274 100
50 and more employees	327 846	313 348	65 206	50 038	22 503	49 274	37 391	59 067	189 523	1 114 197
Canada⁴	455 746	385 815	83 071	97 032	58 013	97 406	94 959	92 868	452 643	1 817 554

Notes:

Figures may not add due to rounding.

1. This information covers only those companies who were surveyed and reported material preparation activities.

2. Except aluminum.

3. Other materials category includes tires, textiles, and contaminated soils.

4. As companies may operate in more than one province, the national totals will not equal the sum of the provincial totals.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program.

2.15 Disposal activity for business and government sectors combined for 1994

Table 2.13 presents information on the amount of non-hazardous waste disposed in both government-run and privately-run waste disposal facilities for 1994. These data were derived from the 1994 editions of the *Waste Management Industry Survey: Business Sector* and the *Waste Management Industry Survey: Government Sector*.

Table 2.13

Disposal of Waste¹ by Province/Territory, 1994

Province/Territory	Waste disposed	1994 population	Waste disposed per capita
	tonnes	persons	tonnes
Newfoundland	486 523	581 242	0.84
Prince Edward Island	x	134 554	x
Nova Scotia	713 941	933 857	0.76
New Brunswick	576 102 ²	757 661	0.76
Quebec	5 189 400 ²	7 288 815	0.71
Ontario	7 350 586	10 937 058	0.67
Manitoba	951 142	1 129 486	0.84
Saskatchewan	925 121	1 012 156	0.91
Alberta	2 329 327	2 715 554	0.86
British Columbia	2 791 478 ²	3 670 825	0.76
Yukon and Northwest Territories	x	94 391	x
Canada	21 464 714	29 255 599	0.73

Notes:

1. Total amount of waste disposed in public and private waste disposal facilities. Does not include wastes disposed in hazardous waste disposal facilities or wastes managed by the waste generator on site.

2. Figure is derived from the results of complementary surveys conducted by the provinces.

x Figures suppressed to meet the confidentiality requirements of the Statistics Act.

Source:

Statistics Canada, Environment Statistics Program..

3 Survey Design and Methodology

This section describes the design and methodology of the 1995 *Waste Management Industry Survey: Business Sector*. It addresses the following areas: the survey universe, the procedures for data collection, editing, imputation and quality assurance.

3.1 Survey universe

The mailing list for the 1995 *Waste Management Industry Survey: Business Sector* was based on the 1994 survey frame supplemented and updated with information from the Statistics Canada Business Register (BR) and various industry directories. Firms selected from the BR are a subset of the "other utilities" (industry class 4999), as defined by the Standard Industrial Classification (1980). The combined list was cross checked once more with other industry directories, to avoid double-surveying of units. This list produced an initial mailing of 912 survey units.

The survey system for waste management has evolved since the industry was first surveyed in 1989. The 1994 survey provided an excellent opportunity to refine the frame for the 1995 *Waste Management Industry Survey: Business Sector*. There are still some difficulties encountered in the development of the frame because the waste management industry is currently treated as a subset of "other utilities" in the 1980 Standard Industrial Classification (SIC) system. However, this will be less of a problem in future surveys because of the reclassification of the sector into its own industry class in the new North American Industry Classification System (NAICS).

During the survey process many companies on the mailing list indicated that their major business rendered them out of scope for the survey. Many other companies had gone out of business or could not be located. After removing these companies, the survey was left with a population of 642 companies.

This difference between the original mailing list and the final list can be attributed largely to the absence of both a formal definition of the waste management industry in the Standard Industrial Classification and a regular survey program. In a conventional industry survey, there are far fewer units entering the mailing list in a given year and the discard rate from the mailing list, owing to unknown or misinterpreted business activities, is much lower.

Not included in the survey frame but included in the data for two variables (employment and total revenues) were firms that were excluded from the survey frame owing to their small size. These data, along with imputed data for total expenses and capital expenditures were added to the information obtained from the survey in order to provide a complete picture of the industry.

3.2 Data collection and processing

Data collection took place during 1996 and early 1997. Survey questionnaires were mailed to the businesses and the responses were returned by mail. The surveys were addressed to a contact person who was either responsible for, or had knowledge of, the waste management operations of the company. Separate questionnaires were completed for each province in which the waste management business operated. For example, a business with operations in 3 provinces, completed 3 questionnaires - each one describing the activity(ies) within a province.

Follow-ups by fax and/or telephone were carried out after the return due date to remind respondents to return their surveys.

Questionnaires were edited in two steps. First, validity edits were applied to ensure that responses to particular questions fell within a limited range of possible values. This type of editing was applied mostly to the questions on quantities but was also used to identify unusual values in the financial sections. A second step, consistency edits, were then applied. These identified occasions where the responses in one section of the questionnaire were logically inconsistent with those given in other sections.

Additional follow-up with the businesses was carried out to collect missing data and to correct inconsistencies.

3.3 Data quality

Many factors affect the quality of data produced in a survey. For example, respondents may have made errors in interpreting questions, answers may have been incorrectly entered on the questionnaires, and errors may have been introduced during the data capture or tabulation process. Every effort was made to reduce the occurrence of such errors in the survey. These efforts included: a complete verification of keyed data, validity and consistency edits, extensive follow-up with the large businesses, and consultation with selected government departments and industry associations.

In general, errors such as incomplete coverage of the universe, incorrect classification of business activity and inconsistencies in working definitions – can be reduced if the survey is repeated at regular intervals and with sufficient frequency so that the mailing list is well maintained and the respondents are familiar with the definitions used and the type of information required.

Incomplete coverage of the industry universe occurs when a firm in the industry is overlooked. If the reason for not including the firm is that it has been incorrectly included in another industry, this is termed a classification error. Such errors have an impact upon estimates.

The large number of small firms in the waste management industry are a potential source for industrial classification errors. However, these companies account for a comparatively small part of total industry activity. To some degree, these errors can be reduced by well designed questionnaires, by direct contact with respondents and with information from industry associations.

Although most companies were very co-operative in answering the survey, some could not provide all the data required in the form in which it was requested. This was especially true for small companies responding to questions about the weights of material collected. Many of these companies operate in areas where facilities do not have weigh scales or where waste volumes are tracked using liquid volume measurements. Therefore exact weights were not available; however many respondents were able to estimate the amounts handled based on the number of trips and the number and size of vehicles used.

In cases where values were missing from survey cells after follow-up, information was imputed. Both the firms with complete surveys and those with incomplete surveys were separated into two size groups, one with under 20 employees and another with 20 and more employees. Median cell values were calculated from the donor set (the complete surveys) separately for each firm size group. These values were then applied to the cells where a value was missing in the corresponding firm size group of the incomplete surveys. For the large firms, the imputed values were carefully scrutinised and compared with values from previous years and other sources (e.g., annual reports) to ensure that the quality of the imputed values were high. The rates of imputations for selected questions are shown in Table 3.1.

The tables presented in this report cover the data that were determined to be of sufficient quality for publication at a disaggregated level. Data confidentiality considerations as well as imputation rates play a role in this assessment. Data must be released at a level where the disclosure of the identity of any respondent in any cell is not possible. In addition, the levels of imputation must remain within reasonable limits.

It is expected that data quality and the amount of detail released will increase with each iteration of the survey. As companies adjust internal accounting systems to track some of the information that the *Waste Management Industry Survey: Business Sector* requests and as the questionnaire is fine-tuned in response to user needs and respondent reactions, the overall quality of results is expected to increase.

Table 3.1
Imputation Rates for Selected Questions

Question and cell number	Under 20	20 and more
	employees	employees
	Imputation rate ¹	
	percent	
Employment and financial characteristics		
Number of full-time employees (019)	27	14
Total operating revenue (034)	15	8
Wages and salaries (036)	34	17
Total operating expenses (045)	33	16
Capital expenditures (052)	6	3
Waste management activities		
Household waste collected for disposal (065)	42	13
Household materials collected for recycling/reuse (068)	16	16
IC&I waste collected for disposal (066)	44	13
IC&I materials collected for recycling/reuse (069)	14	16
C&D waste collected for disposal (072)	-	-
C&D materials collected for recycling/reuse (073)	-	-
Waste prepared for diversion (094)	13	12

Note:

1. The proportion of the total value of the cell that is imputed.

Source:

Statistics Canada, Environment Statistics Program.

References

Gaston, C., 1993, "Waste Management Industry Survey", **Environmental Perspectives**, Statistics Canada Cat. No. 11-528, Ottawa.

Gaston, C. and A. Goodall, 1993a, "Local Government Waste Management Practices Survey", **Environmental Perspectives**, Statistics Canada Cat. No. 11-528, Ottawa.

Mitchell, B., 1996, "Households and the Environment: Canada and Australia", **Environmental Perspectives**, Statistics Canada Cat. 11-528-XPE, No. 3, Ottawa.

Statistics Canada, 1996a, **Environmental Protection Expenditures in the Business Sector, 1994**, Item 16F0006XNE, Ottawa.

Statistics Canada, 1996b, **1994 Waste Management Industry Survey: Business Sector**, Item 16F0003XPE, Ottawa.

Statistics Canada, 1995, **Households and the Environment, 1994**, Cat. 11-526, Ottawa.

Statistics Canada, 1992, **Waste Management Survey, 1989: A Pilot Enquiry**, Item INDD.WMS.01, Ottawa.



Waste Management Industry Survey, 1995

Please correct, if necessary

Company name

Operating name

C/O

Street address

City

Province/Territory

Postal code



Please read before completing

Purpose of the Survey

This survey collects information that will help Canadians understand the contributions made by the waste management industry to Canada's economy and environment. The results will assist businesses in the industry to make sound decisions based on data that apply specifically to the waste management industry.

Confidentiality

Statistics Canada is prohibited by law from publishing any statistics which would divulge information obtained from this survey that relates to any identifiable business, without the previous written consent of that business. The data reported will be treated in strict confidence, used for statistical purposes and published in aggregate form only. The confidentiality provisions of the Statistics Act are not affected by either the Access to Information Act or any other legislation.

Inquiries

If you require assistance in completing this questionnaire or if you have any questions or comments regarding this survey, please contact:

**Operations and Integration Division
Statistics Canada
Ottawa, Canada
K1A 0T6**

Telephone (toll-free): **1-800-255-7726**

Fax: **1-613-951-0709**

In all correspondence concerning this questionnaire, please quote the identification number that appears on the address label.

IMPORTANT

If your response for an item is zero, please write "0" in the corresponding box rather than leaving the cell blank.

Please return this questionnaire within 20 days of receipt

If you are unable to do so, kindly inform Operations and Integration Division of the expected completion date.

Definitions

What is the waste management industry?

For the purposes of this survey, the waste management industry includes all establishments operating in Canada that are involved in the collection, transportation, diversion, treatment or disposal of waste. Waste diversion includes any physical transformation of materials in preparation for

recycling or reuse. Such activities include sorting, cleaning, and volume reduction. Waste treatment includes any physical or chemical transformation of waste such as decontamination in preparation for disposal. Waste disposal facilities include landfills and incinerators as well as facilities designed to contain hazardous wastes.

A. Business Type

1. **This questionnaire should be completed for your company's operation in one province/territory only.** If you operate in more than one province/territory, you should file separate reports for the other provinces/territories in which you operate. You may wish to photocopy this questionnaire or you may call us toll-free at 1-800-255-7726 to request additional questionnaires.

Province/territory for which this report applies

001

2. **Did this company operate in more than one province/territory in 1995?**

⁰⁰² Yes ➤ Continue

No ➤ **Go to Question 4, Section A**



3. **Please indicate the other provinces/territories in which you operate and for which you will be returning reports.**

⁰⁰³

A. Business Type (concluded)

4. Please indicate which of the following waste management activities this company provides in the province indicated above.

Check all that apply

- 004 Collects and transports waste for disposal
- 005 Collects and transports materials for recycling or reuse
- 006 Operates a waste transfer facility
- 007 Operates a landfill
- 008 Operates an incinerator
- 009 Treats/contains sewage
- 010 Operates a hazardous waste treatment/containment facility
- 011 Prepares material for recycling or reuse (sorting, cleaning and volume reduction)

012 Other



Please specify

013 _____

B. Reporting Period

5. Financial information should be reported for this company's most recent fiscal year ending at any time between April 1, 1995 and March 31, 1996.

Specify fiscal year

Start: 014

D	M	Y		

End: 015

D	M	Y		

C. Employment

6. Report the usual number of full-time (30 or more hours per week) and part-time (less than 30 hours per week) employees working for this company, according to their primary type of work.

	Number of employees	
	full-time	part-time
Operations (drivers, waste collectors, mechanics, etc.)	016	020
Administration and management	017	021
Other, <i>specify</i>	018	022
▼		
024		
Total employees (sum cells 016 to 018 and cells 020 to 022)	019	023

D. Operating Revenues

7. Indicate this company's 1995 revenue from the provision of each of the following services.

Collection and transportation of waste for disposal	025 \$	.00
Collection and transportation of materials for recycling or reuse	026 \$	.00
Operation of a waste transfer facility	027 \$	.00
Preparing materials for recycling/reuse (sorting, cleaning, and volume reduction)	028 \$	.00
Operation of a (non-hazardous) waste disposal facility (landfill or incineration)	029 \$	.00
Operation of a hazardous waste treatment, containment or disposal facility	030 \$	.00
Sewage treatment/containment	031 \$	.00
Sale of recovered materials	032 \$	.00
Other, <i>specify</i> (e.g., consulting)	033 \$	.00
▼		
035		
Total revenues from all activities (sum cells 025 to 033)	034 \$	.00

E. Operating Expenses

8. Please report this company's 1995 operating expenses.

Wages and salaries	036 \$	.00
Employer contributions to pension, medical and unemployment insurance plans, etc.	037 \$	.00
Fuel and electricity	038 \$	.00
Other materials and supplies	039 \$	.00
Maintenance and repairs	040 \$	.00
Depreciation	041 \$	.00
Tipping fees paid for waste disposal	042 \$	.00
Operating licences and permits	043 \$	.00
Other, <i>specify</i>	044 \$	.00
<div style="border: 1px solid black; padding: 2px; width: fit-content;">046</div>		
Total expenses (sum cells 036 to 044)	045 \$	.00

F. Capital Expenditures

9. Report this company's 1995 capital expenditures.

Include new assets purchased in Canada and all imported assets (new and used).

Vehicles	047 \$	.00
All other machinery and equipment	048 \$	.00
Construction and refurbishing of facilities (excluding residences)	049 \$	.00
Maintenance and repairs of new and used assets	050 \$	.00
Other, <i>specify</i>	051 \$	.00
<div style="border: 1px solid black; padding: 2px; width: fit-content;">053</div>		
Total expenditures (sum cells 047 to 051)	052 \$	.00

Definitions

The following definitions apply to Sections G-K.

Municipal solid waste

Includes solid waste produced by the residential and industrial, commercial and institutional sectors.

Construction and demolition waste

Includes waste material from the construction and demolition of roads, bridges and buildings, such as asphalt, concrete, wood, rubble, paper, gypsum, metal, etc.

Hazardous waste

Includes all material designated as hazardous, due to its nature or quantity, and requiring special handling techniques as specified by the Transportation of Dangerous Goods Regulations (1985), The Canadian Environmental Protection Act (1988), The Basel Convention (1989), or the Export and Import of Hazardous Waste Regulations (1992).

G. Collection and Transportation

10. Did this company collect and transport waste for disposal or materials for recycling or reuse in 1995?

054 Yes ➤ Continue No ➤ **Go to Question 17, Section H**

11. Report the percentage of this company's revenue from waste/recyclables collection and transportation activities earned through contracts with the following in 1995.

Municipal/regional governments	055	%
Households (including contracts to serve apartments and condominiums)	056	%
Other institutions, commercial and industrial clients	057	%
Other, <i>specify</i>	058	%
<div style="border: 1px solid black; padding: 2px; width: fit-content;">059</div>		
Total (sum cells 055 to 058)	100	%

G. Collection and Transportation (concluded)

12. Please indicate the following quantities of waste transported by this company in 1995.

If this company did **not** transport waste across a border in 1995,

check ⁰⁶⁰ ➤ **Go to Question 13**

Canadian waste transported to another country for disposal
 Canadian waste transported across a provincial boundary for disposal
 Foreign waste transported into Canada for disposal

061	tonnes
062	tonnes
063	tonnes

13. What quantity of municipal solid waste (nonhazardous) for disposal, and/or materials for recycling or reuse, did this company collect and transport in 1995?

If this company did **not** collect and transport municipal waste or materials for recycling/reuse in 1995,

check ⁰⁶⁴ ➤ **Go to Question 14**

Waste for disposal (intended for incineration or landfill)

Households
 Industrial, Commercial and Institutional (ICI)

065	tonnes
066	tonnes

Total municipal solid waste collected and transported for disposal (intended for incineration or landfill) (sum cells 065 and 066)

067	tonnes
-----	--------

Materials intended for recycling/reuse

Households
 Industrial, Commercial and Institutional (ICI)

068	tonnes
069	tonnes

Total materials collected and transported for recycling/reuse (sum cells 068 and 069)

070	tonnes
-----	--------

14. What quantity of construction and demolition (C&D) waste (nonhazardous) did this company collect and transport in 1995?

If this company did **not** collect and transport C&D waste in 1995, check ⁰⁷¹ ➤ **Go to Question 15**

Waste for disposal (intended for incineration or landfill)
 Materials intended for recycling/reuse

072	tonnes
073	tonnes

15. What quantity of hazardous waste did this company collect and transport from the following sources in 1995?

If this company did **not** collect and transport hazardous waste in 1995, check ⁰⁷⁴ ➤ **Go to Question 16**

Industrial, commercial and institutional
 Other sources, including households

075	tonnes
076	tonnes

Total hazardous waste collected and transported (sum cells 075 and 076)

077	tonnes
-----	--------

16. What quantity of sewage and sewage sludge did this company collect and transport in 1995?

If this company did **not** collect and transport sewage and sewage sludge in 1995, check ⁰⁷⁸ ➤ **Go to Question 17**

Total sewage and sewage sludge collected and transported

079	tonnes
-----	--------

H. Waste Diversion

17. Did this company prepare materials for recycling or reuse in 1995 by sorting, cleaning, or reducing volume?

⁰⁸⁰ Yes ➤ Continue No ➤ **Go to Question 19, Section I**



18. What quantity of the following materials did this company prepare for recycling or reuse by sorting, cleaning, or reducing volume in 1995?

Newsprint
 Fine paper
 Corrugated cardboards
 Glass
 Ferrous metals

081	tonnes
082	tonnes
083	tonnes
084	tonnes
085	tonnes

H. Waste Diversion (concluded)

18. What quantity of the following materials did this company prepare for recycling/reuse by sorting, cleaning, or reducing volume in 1995?

Copper

Aluminum

Other nonferrous metals

Wood

Plastic

Oils

Solvents

Other, *specify*

086	tonnes
087	tonnes
088	tonnes
089	tonnes
090	tonnes
091	tonnes
092	tonnes
093	tonnes

095

Total material prepared for recycling/reuse (sum cells 081 to 093)

094	tonnes
-----	--------

I. Waste Transfer

19. Did this company operate a waste transfer station in 1995?

⁰⁹⁶ Yes ➤ Continue No ➤ **Go to Question 22, Section J**

20. How many tonnes of non-hazardous waste were handled by this transfer facility in 1995?

097	tonnes
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21. How many tonnes of hazardous waste were handled by this transfer facility in 1995?

098	tonnes
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J. Operation of Waste Disposal Facilities (excluding hazardous wastes)

22. Did this company operate a disposal facility for nonhazardous waste (landfill or incineration) in 1995?

⁰⁹⁹ Yes ➤ Continue No ➤ **Go to Question 24, Section K**

23. For each disposal facility that you operated in the province/territory in 1995, indicate the name and location (street or highway address), type of facility and the amount of waste disposed of in the facility as measured by weigh scales or by providing your best estimate.

Name and address of disposal facility	Type (check one only)		Type of waste handled (check as many as apply)			Quantity of waste handled by the facility in 1995 (tonnes)
	Landfill	Incinerator	Municipal waste	Construction and demolition waste	Other	
100	108	116	124	132	140	148
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
101	109	117	125	133	141	149
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
102	110	118	126	134	142	150
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
103	111	119	127	135	143	151
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
104	112	120	128	136	144	152
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
105	113	121	129	137	145	153
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
106	114	122	130	138	146	154
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
107	115	123	131	139	147	155
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Please provide information about any additional facilities on additional sheets (photocopy this form or telephone 1-800-255-7726 to obtain additional forms.)

K. Hazardous Waste Treatment and Disposal

24. Did this company operate a facility to treat, incinerate, landfill (or otherwise contain) hazardous waste in 1995?

¹⁵⁶ Yes ➤ Continue No ➤ **Go to Question 26, Section L**

What quantity of hazardous waste did this company treat or dispose of in 1995?

Treatment	157	tonnes
Incineration	158	tonnes
Secure landfill	159	tonnes
Other, <i>specify</i>	160	tonnes
<div style="border: 1px solid black; padding: 2px; display: inline-block; width: 500px;">162</div>		
Total hazardous waste treated or disposed (sum cells 157 to 160)	161	tonnes

25. What quantity of the following types of hazardous waste did this company treat or dispose of in 1995?

Organic solvents, solutions and still bottoms	163	tonnes
Oils and greases, oily mixtures and residues	164	tonnes
Heavy metal solutions and residuals	165	tonnes
Inorganic sludges, solutions and residues	166	tonnes
Pesticide and herbicide wastes	167	tonnes
PCB wastes	168	tonnes
Other (miscellaneous chemicals, paint, biomedical waste etc.)	169	tonnes
Total hazardous waste treated or disposed (should equal sum in Q. 24)	170	tonnes

L. Certification

26. I certify that the information contained in this report is correct and complete to the best of my knowledge.

Signature	171	172 Date: /
Name of person completing this report	173	
Title of person completing this report	174	
Telephone number	175 ()	
Fax	176 ()	

M. Comments

Thank you for your cooperation
Please return this questionnaire in the envelope provided

If you have any questions, please contact us.

Telephone (toll-free): 1-800-255-7726
 Fax: 1-613-951-0709