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# Waste Management Industry Survey: Business and Government Sectors 2002



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# Waste Management Industry Survey: Business and Government Sectors

2002

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## Note of appreciation

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## Preface

This report presents the results of the 2002 *Waste Management Industry Survey: Business Sector* and the 2002 *Waste Management Industry Survey: Government Sector*. These surveys gathered information on the financial characteristics and waste management activities undertaken by companies, local governments and other public waste management bodies.

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

The results of these surveys provide a picture of physical characteristics of waste disposal and recycling as well as financial and employment features of businesses and local governments that provide waste management services. The data have been analysed and presented at a provincial level wherever it was possible to do so without compromising confidentiality.

## Acknowledgements

The contributions of the respondents, industry groups and provincial environmental departments were critical to the successful completion of the surveys and are gratefully acknowledged.

This report was prepared by the Environment Accounts and Statistics Division under the direction of Rob Smith, Director and Bruce Mitchell, Chief, Environmental Protection Accounts and Surveys. Data collection for the surveys was conducted by the Operations and Integration Division (Mel Jones, Director) and the Environment Accounts and Statistics Division. Data from Public Institutions Division (Ian Macredie, Director) were also used in the preparation of this report.

The Manager of the *Waste Management Industry Survey: Business and Government Sectors 2002* Report was John Marshall. Sheri Vermette was the Technical Manager.

Major contributions to the project were made at various times by:

Marc Lavergne

Bruce Mitchell

Hélène Trépanier

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# Symbols

The following standard symbols are used in Statistics Canada publications:

- . not available for any reference period
- .. not available for a specific reference period
- ... not applicable
- 0 true zero or a value rounded to zero
- 0<sup>s</sup> value rounded to 0 (zero) where there is a meaningful distinction between the true zero and the value that was rounded
- P preliminary figures
- r revised figures
- x suppressed to meet the confidentiality requirements of the *Statistics Act*
- E use with caution
- F too unreliable to be published

# 1 Highlights

- In 2002, the waste management industry handled over 30 million tonnes of non-hazardous solid waste generated by Canadian households and businesses. Households alone produced 39% of these waste materials, on average 383 kilograms for each Canadian, about 18 kilograms more per person than in 2000.
- Nationally, 22% of the total non-hazardous waste generated was diverted from disposal. Nova Scotia had the highest diversion rate (30%) followed closely by British Columbia (29%) and Prince Edward Island (28%). However, Prince Edward Island, with an increase of 8% over its 2000 diversion rate, saw the largest percentage increase in the amount of waste diverted from disposal in 2002.
- Over 6.6 million tonnes of non-hazardous material were processed for recycling in 2002. Mixed paper and organic material made up the bulk of the material recycled, accounting for 23% and 18% respectively of the total for 2002. Within material categories the largest increases from 2000 to 2002 were construction and demolition material (up 42%) and cardboard and box board material (up 27%).
- In 2002, almost 24 million tonnes (760 kilograms per capita) of non-hazardous material was disposed, an increase of 7 kilogram per Canadian from 2000. This includes material that was disposed in Canadian landfills and incinerators as well as material that was exported to another country for disposal. The lowest per capita disposal rate was in Nova Scotia with 417 kilograms per capita. The highest disposal rate for 2002 was 928 kilograms per capita in Alberta.
- There were 48 more businesses in the waste management industry in 2002 than in 2000. Small waste management businesses (under 20 employees) saw the largest increase in their numbers from 2000 to 2002.
- Revenues generated by waste management businesses increased 19% from 2000 to total over \$4.1 billion for 2002. The majority of this revenue (59%) was earned from the collection and transportation of waste and recyclable materials.
- In 2002, operating expenditures for waste management businesses totalled over \$3.3 billion. This represents an increase of 12% from 2000. Nationally, the largest proportion of these expenditures went to wages and salaries (23%) followed by tipping fees (21%). Capital expenditures for 2002 totalled almost \$342 million - down 20% from 2000.
- Governments and public waste management bodies generated over \$875 million from waste management activities in 2002. The largest source of these revenues were tipping fees, making up 50% of the total.
- Current expenditures made by governments and other public bodies targeted to waste management activities totalled \$1.5 billion in 2002, an increase of 9% from 2000. Over half of these expenditures were payments to private waste management firms. On an activity basis, the operation of recycling facilities showed the largest increase from 2000 (expenditures up 38%).
- Employment for the entire waste management industry, including both private and government sectors, totalled 32 485 persons in 2002. This is an increase of almost 3% from 2000. The majority of those persons working in the waste management industry are employed by private waste management firms.



## 2 Methodology and Data Quality

The following information should be used to ensure a clear understanding of the underlying methodology of the survey and of key aspects of the data quality. This information will provide a better understanding of the strengths and limitations of the data and of how they can be effectively used and analysed. The information may be of particular importance when making comparisons with data from other surveys or sources of information and in drawing conclusions regarding change over time.

### 2.1 Introduction

#### Why is there a need for information on the waste management industry?

A general increase in environmental awareness has raised concerns over the impacts that our activities have on the environment. The waste produced by society can impact the environment in various ways. For example, the generation and disposal of waste may contribute to soil and water contamination, while methane gas that is not captured at landfills adds to the accumulation of greenhouse gases in the atmosphere.

In turn, statistics on volumes of waste can help measure the effectiveness of environmental practices and policies. Canadians have access to an ever increasing array of environmental information on a variety of issues, including waste. As environmental awareness increases, Canadians need reliable environmental statistics in order to make informed decisions regarding their own patterns of consumption. As well, waste statistics can be used by researchers and policy makers to analyse industry trends and implement appropriate policy mechanisms.

#### The waste management industry

The services provided by the waste management industry include the collection and transportation of waste and materials destined for recycling (including composting), the operation of non-hazardous and hazardous waste disposal facilities, the operation of transfer stations, the operation of recycling and composting facilities and the treatment of hazardous waste.

The Canadian waste management industry embodies two inter-related elements. Waste management services can be provided directly by a public body, such as a local government (e.g., city, town, regional district) or a waste management board or commission whose purpose is to coordinate the provision of such services. For example, a

number of local governments may agree to jointly administer a landfill or a recycling facility (Text Box 2.1).

Private firms are the second source of waste management services. Local governments may enter into contracts with these firms to provide certain waste management services or the businesses may directly enter into such arrangements with clients other than local governments. For example, a region may contract out curb-side waste and/or recycling services to a company and this same company may enter into separate agreements with apartment complexes or industrial operations.

### 2.2 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 a production process— for example, fly ash from a furnace. 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 have been evolving over the past several years. The most common source of difficulty is in classifying types of waste. Strategies to compile waste statistics reflect the specific needs of statistical and analytical projects: by type (municipal solid non-hazardous waste, hazardous waste); by generator or by generating activity (residential, industrial, commercial, institutional and construction and demolition projects) as well as by type of material. The differences in the terminology that the various respondents use can create many operational difficulties when surveys are in the field. (see Text Box 2.4 for the definitions used for this report). Progress is being made on both the national and international fronts toward the development and implementation of consistent classifications and measurement methodologies of waste management industry activities as well as the materials that this industry handles.

## Text Box 2.1

**Local Government and Other Waste Management Service Providers**

For the purposes of this report, local government in Canada includes all government and quasi-governmental entities below the provincial or territorial level. Within this broad category, administrative functions are divided among municipalities, special purpose boards and local school districts. A further distinction is made between upper and lower tier municipalities. In this report, for the purpose of simplicity, the term local government is used to denote any of the following public organizations.

**Upper-tier municipalities** are those encompassing one or more local government entities, such as metropolitan corporations, regional districts, regional municipalities and counties.

**Lower-tier municipalities** are typically those whose borders can lie within or outside the jurisdiction of another level of municipality. These lower tier municipalities can include cities, towns, villages, townships, rural municipalities, districts and counties, and some quasi-municipalities, including local government districts and local improvement districts.

**Other public waste service providers** can come in a variety of forms, but as a rule consist of a group of local municipalities (usually at the lower tier level) who collectively provide a waste management service. A group such as this will typically oversee the contracting out of a specific service or set of services (e.g. the operation of a materials recycling facility) but sometimes will also provide a service themselves (e.g. the operation of a landfill).

To arrive at physical totals for the disposal and recycling sections, data from the two surveys were combined and duplicate entries were removed. These duplicates occur because operating arrangements of disposal and recycling activities can vary. Sites may be owned and operated by the same entity, but some sites may be owned by a government body and operated by a private firm. Since in some cases an owner of a facility may not have necessarily been the operator and the survey may have been completed by both the owner and the operator, care was taken to ensure that the information from each facility was only counted once. In these cases the information reported by the owner of the facility was typically used. However, in cases where there was a large difference in the information reported by the two respondents, further research was done to determine the reason for the discrepancy. The decision of which respondent's information to use was based on the results of this research and professional judgement.

Not all of the population may have access to, or use, formal disposal or recycling facilities. In rural areas especially, arrangements can be made with a landowner to use property for the purpose of small-scale disposal sites ("dumps"). For this reason and others, a survey coverage population was developed using information provided by survey respondents as well as from other sources about the municipalities, that were served by disposal and recycling facilities. Total populations were calculated for these municipalities using Statistics Canada data.<sup>1</sup> The difference between the total population and the covered population was calculated. A provincial per capita disposal figure was applied to this undercovered population, and this total was added to the survey total to arrive at an adjusted disposal figure.

It is assumed that all Canadians produce waste and that this waste must be disposed of in some manner, thus requiring a "blown-up" disposal figure. However, the same adjustment was not made to the recycling figures. Unlike waste, which can be disposed of in a hole at the back of someone's property, material to be recycled must be prepared and processed. While the smallest recycling depots may not be surveyed because they fall below the municipal population or business size thresholds, the major material recovery facilities where this material is processed are covered by the survey. Therefore most recycled material that falls within the conceptual parameters of this survey is captured, and a "blown-up" figure is not required.

Table 2.2 shows the percentage of the population for each province that was not covered by the surveys and for which estimates were adjusted.

## 2.3 Overall approach: data sources and methodology

### General methodology

This report presents the physical quantities, types and sources of waste and recyclable materials as well as financial and employment characteristics of the waste management industry. These estimates are based on the integration of two waste surveys conducted by Statistics Canada on a biennial basis; the *Waste Management Industry Survey: Business Sector* and the *Waste Management Industry Survey: Government Sector*. Essentially the same questions were asked for the waste and recyclable quantities and types sections of both surveys, however the financial sections differed somewhat.

1. Statistics Canada, CANSIM II, Table 051-0001, "Estimates of population, by age group and sex, Canada, provinces and territories, annual".

## Text Box 2.2

**The Classification of Waste Management Services**

The North American Industry Classification System (NAICS) is an industry classification system developed by the statistical agencies of Canada, Mexico and the United States. Created against the background of the North American Free Trade Agreement, it is designed to provide common definitions of the industrial structure of the three countries and a common statistical framework to facilitate the analysis of the three economies. NAICS is based on supply side or production oriented principles, to ensure that industrial data, classified to NAICS, is suitable for the analysis of production-related issues such as industrial performance.

Businesses falling into the following NAICS classifications are considered to be “in scope” for the *Waste Management Industry Survey: Business Sector*.

**56211 Waste Collection**

This industry comprises establishments primarily engaged in collecting and hauling non-hazardous or hazardous waste within a local area. Establishments engaged in hazardous waste collection may be responsible for treating and packaging the waste for transport. Waste transfer stations are also included.

**56221 Waste Treatment and Disposal**

This industry comprises establishments primarily engaged in operating landfill sites, incinerators, or other treatment or disposal facilities for non-hazardous or hazardous waste. Establishments that integrate the collection, treatment and disposal of waste are also included.

**56292 Material Recovery Facilities**

This industry comprises establishments primarily engaged in operating facilities in which recyclable materials are removed from waste, or mixed recyclable materials are sorted into distinct categories and prepared for shipment.

Note that missing from this list of classifications is NAICS 56291, Remediation Services. While in the same NAICS grouping as the waste management industry, this industry is not included as it does not provide waste management services as defined by the Canadian Council of Ministers of the Environment.

**Source:**

Statistics Canada, *North American Industry Classification System*, Catalogue no. 12-501-XPE, Ottawa, 1997.

**2.3.1 Reference period**

The *Waste Management Industry Surveys* are biennial surveys. The information contained in this report reflects the total revenues, total operating and capital expenditures, total employment and waste quantities covering the financial year ending between April 1, 2002 and March 31, 2003.

**2.3.2 Coverage****Business Sector**

The 2002 *Waste Management Industry Survey: Business Sector* asked firms to report information on their waste management activities for each of their provincial and territorial operations. Businesses were selected based on the size of their workforce as well as the level of their total revenues. The threshold (based on revenue and employment levels) that was used to include or exclude a particular business from the survey mailout depended on the province or territory in which they operated. For example, surveyed businesses from Newfoundland and Labrador had a lower revenue and employment cut-off than those from Ontario.

The survey frame for the 2002 business survey was based on the 2000 survey supplemented and updated with information from the Statistics Canada Business Register (BR) and industry directories. Firms selected from the BR are a subset of the Waste Management and Remediation Services NAICS 562 (Text Box 2.2). The combined list was cross checked once more with other industry directories to avoid double-surveying of units.

For those firms not included in the survey because of their small size, administrative data on total operating revenues and total employment obtained from Statistics Canada's Business Register were used to estimate their contribution to the industry.

**Government Sector**

Local governments and other public waste management bodies were selected for the *Waste Management Industry Survey: Government Sector* on the basis of a municipal population threshold that varied by province and whether or not a disposal, recycling and/or composting facility operated within their jurisdiction.

The mailing list for the 2002 survey was based on past survey information and supplemented by information obtained from provincial sources.

Some provinces collected their own data on aspects of waste management for 2002. These data were used to fill in missing values or to verify values for the survey results presented in this report. Quebec municipalities, for

example, were not surveyed by Statistics Canada as the province conducts its own waste management surveys.

### 2.3.3 Variables measured

For the reference year 2002, respondents were asked to report the following information:

- specific types of waste management activities conducted by the respondent;
- total quantities of non-hazardous and hazardous waste managed in disposal facilities, recycled, composted, exported, and imported;
- sources of waste and recyclable and compostable material;
- total revenues realised from the sale of waste management services;
- total operating and capital expenditures; and
- total employment.

### 2.3.4 Data collection and processing

Data collection for both surveys took place during the spring and summer of 2003. Survey questionnaires were mailed to a total of 1 563 businesses and local governments. The responses were returned by mail. The questionnaires were addressed to a contact person who was either responsible for, or had knowledge of, the waste management operations of the survey unit.

For businesses that had operations in more than one province, a separate questionnaire was completed for each province in which the waste management business operated. For example, a business with operations in three provinces completed three questionnaires, each one describing the activities within a province. This was not a concern for the local government survey.

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

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, was 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 was carried out to collect missing data and to correct inconsistencies. The survey collection period was closed by early November 2003.

#### Government sector waste management

Many local governments use the services of private sector waste management firms. It was essential that both the questionnaire structure and particular wording enabled respondents to distinguish between services they provided with their own employees and those which they contracted out. In the processing phase it frequently became necessary to contact respondents to clarify the nature of these relationships.

In addition, groups of municipalities work together to provide waste management services for their residents. In many areas, different tiers of local governments exist and governments in each tier may be involved in aspects of waste service delivery. Many alternative forms of service delivery were identified.

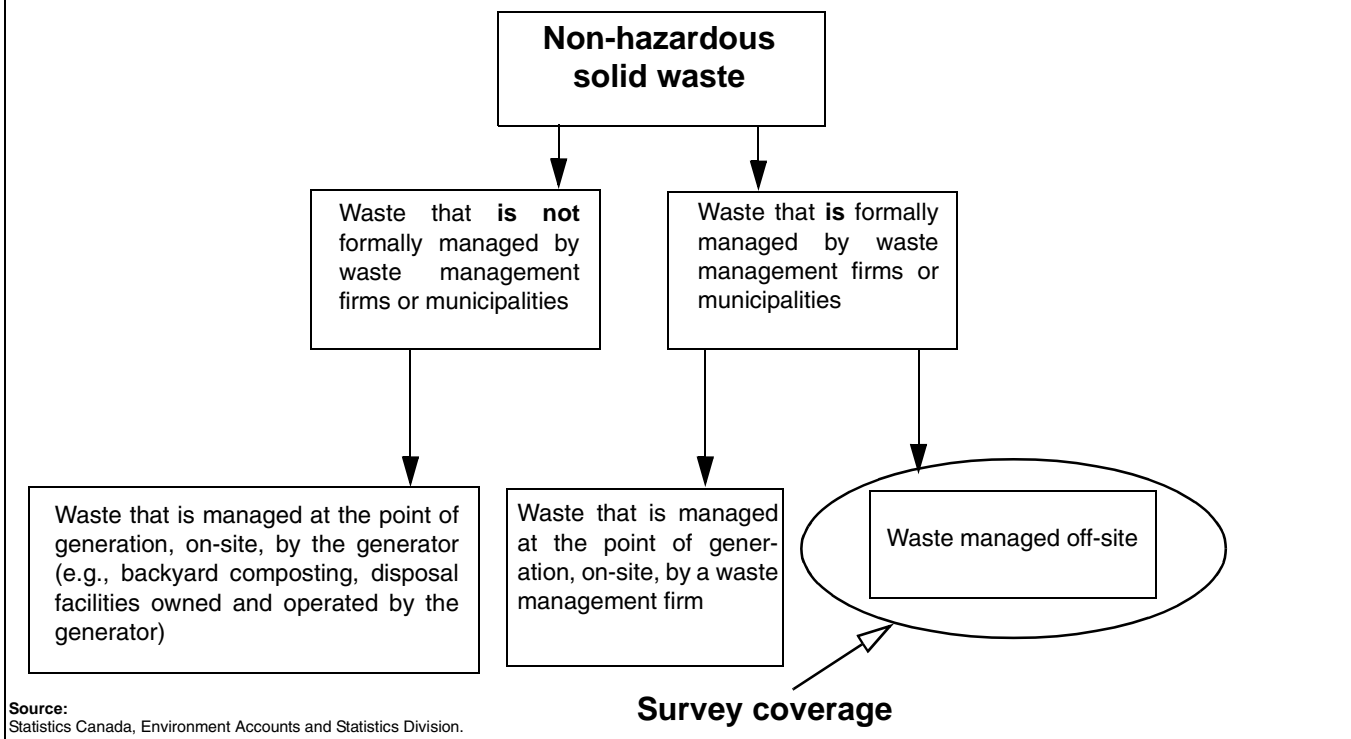
For example:

- 1) A regional government might serve an area within which there are a number of local municipalities.
- 2) The upper tier government might provide all of the waste services.
- 3) Only the lower tier municipalities might provide services.
- 4) Both tiers might provide different services (e.g., one operates a disposal facility, the other tier provides waste collection services).
- 5) Both tiers could be providing the same services to different parts of the region (a lower tier might run a disposal facility for just their municipality with the regional government running a disposal facility for the remainder of the region).
- 6) Municipalities in one or both tiers could act co-operatively through a separate government agency such as a regional waste commission that both collects waste and runs the disposal facility.
- 7) None of the governments in an area could be doing any waste management, leaving provision of waste services strictly to private sector firms.
- 8) Or, there may be numerous combinations of the above scenarios.

Examples of each of these situations exist in Canada and both the survey vehicle and processing system had to be able to deal with these possibilities.

Extensive respondent follow-up was required in some cases. Returns for specific geographic areas were frequently processed together in order to build a clear

Figure 2.1  
**Waste Management Industry Survey Coverage**



picture of the service delivery area and to prevent either double counting or inadvertently missing pieces of information.

### 2.3.5 Evaluation of frame coverage

The estimates presented in this report refer only to waste and recyclable materials that have entered the managed waste stream; in other words, waste or recyclables that have been collected, processed or disposed of by a private waste management firm or local government organization. Therefore, waste or recyclables that are directly managed by the generator are not covered.

For example, waste created by a pulp and paper mill may be managed by the company on site or in another company-run facility without the assistance of separate service providers. As a result, these quantities would not be counted by either survey. Also, households may manage some waste materials themselves. Many households have backyard composters that handle at least a portion of home and garden organic waste. While the amounts of compostable materials handled through central composting programs are included in the report, the backyard component is not. In addition, any unconventional methods of waste disposal, such as illegal dumping are not included

in the survey coverage. (The above points are illustrated in Figure 2.1)

#### In-scope establishments

For the 2002 survey cycle, a total of 1 149 fully completed and partially completed in-scope questionnaires were returned; 441 for the business sector and 708 for the government sector. For those questionnaires that were not returned, 281 were considered to be in-scope resulting in a combined total of 1 430 in-scope respondents for the two surveys.

#### Closures, mergers and acquisitions, out-of-scope establishments

Since the 2000 survey, some changes have occurred in the waste management industry. Looking at the business sector, of the establishments surveyed, 21 went out of business and 9 mergers took place. Another 11 businesses that had provided waste management services in 2000 did not provide these services in 2002 and were determined to be out-of-scope for the purpose of this survey. Among the local governments surveyed, 5 municipalities amalgamated, becoming either a part of an existing municipality or forming a new municipality and another 10 were found to be out-of scope for the 2002 cycle.

## Text Box 2.3

**Response Burden**

In order to track and thus make improvements to lessen the burden that the completion of these surveys impose on respondents, the 2002 editions of the *Waste Management Industry Survey* asked respondents to indicate the amount of time spent completing the questionnaire.

The mean number of hours reported by the respondents is presented below:

*Waste Management Industry Survey: Business Sector, 2002*

- Under 6 employees - 3.28 hours
- 6 or more employees - 4.22 hours

*Waste Management Industry Survey: Government Sector, 2002*

- All respondents - 3.19 hours

## 2.4 Data accuracy

Many factors affect the accuracy 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 or government 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. However, these errors are less frequent now than in the past with the adoption of the NAICS classification system (See Text Box 2.2).

### Assessing data accuracy

One way to assess data accuracy is to compare it to the trends of other data collected. For example, comparing the waste statistics for 2002 with those for 2000, it is apparent that there has been substantial growth in the Canadian waste management industry. On a per capita basis, more non-hazardous waste was generated (disposed and prepared for recycling) during 2002 than in 2000. As would be expected, the upward trends seen in the waste quantity estimates are reflected in the financial and employment estimates of the business and government sectors of the industry.

Comparing the waste data with known economic trends is another way of validating the data. Economic growth<sup>1</sup> is one indicator of the general state of the economy. Positive growth, such as the 5.3% increase in GDP observed nationally from 2000 to 2002<sup>2</sup>, typically indicates an active economy: people spent more money on goods and services in 2002 than in 2000. This increase in production may contribute to an increase in waste production. For example, in an active economy, more goods and services are purchased by businesses and households. There is more packaging around these goods that must be disposed or recycled. The good itself maybe discarded or recycled once it is used. Or, an older item that the newly purchased good is replacing is disposed or recycled.

The very active housing market<sup>3</sup> in many parts of Canada may have also contributed to the waste generation increase. Debris is created through the construction of new homes or reburbing of existing ones. As well, when Canadians change homes they generate waste through their use and subsequent discarding of moving materials, purchases of new items for the home and the disposal of items that are unwanted.

### 2.4.1 Response rates

The overall response rate for the 2002 waste management industry surveys, based on the ratio of the number of completed and partially completed questionnaires to the total number of in-scope questionnaires, was 70% for the business sector and 89% for the government sector. An alternative response rate of 77% was calculated for the business sector based on total revenues.

1. Economic growth has been measured as Gross Domestic Product or the growth in the market value of all goods and services produced within Canada.
2. Statistics Canada, CANSIM, Table 379-0017 - "Gross Domestic Product (GDP) at basic prices, by North American Industry Classification System (NAICS), annual".
3. Statistics Canada, CANSIM, Table 027-0009 - "Housing starts, under construction and completion", annual".

## 2.4.2 Imputation rates

Although most businesses and local governments were very co-operative in answering the survey, some could not provide all the data required in the form in which it was requested. For example, facilities operating without a weigh scale had difficulties answering questions about the weights of material collected or disposed. Also, many respondents did not track their revenues in the manner that the survey required. Unable to provide a breakdown of revenues by specific waste management activity, these respondents provided only their total revenues. In cases where values were missing from survey cells or where the respondent did not complete a questionnaire even after extensive follow-up, information was imputed.

### Data reliability

Imputation rates are an indicator of data reliability. Imputation is a term that refers to the proportion of data that were not obtained directly through a survey but rather came from an administrative source or was estimated using defensible and replicable methodologies.

Imputation is necessary to “complete” the data picture when there are non or missing responses to certain questions or sets of questions

### Business Sector

All in-scope questionnaires (completed and non-response) for the business sector survey were sorted into three groups based on employment size; firms with under 6 employees, firms with 6 to 19 employees, and firms with 20 or more employees. Using the questionnaires for those establishments that responded, median cell values were calculated separately for each size group for the financial and employment data. These values were then applied to the cells where a value was missing in the corresponding size group. The rates of imputation for selected questions are presented in Table 2.1.

Firms with under 6 employees were not intentionally included in the survey frame. However, frame selection was based on previous years and/or other administrative data and the size of a business may change between reporting-periods. For those small firms that were not surveyed, employment and financial data from the Statistics Canada Business Register were used as base level information from which other cells were imputed.

For large firms, the imputed values were compared with values from previous years and other sources, such as annual reports and security exchange filings to ensure that the quality of the imputed values was high.

### Government Sector

A similar methodology was used to estimate missing financial and employment values for the government sector survey. However due to the high response rate for this survey, very few values were in need of imputation.

Table 2.1

### Imputation Rates for Financial Characteristics from the Waste Management Industry Survey: Business Sector, 2002

Financial characteristics	Under 6 employees <sup>1</sup>	6 or more employees	Total
	Imputation rate <sup>2</sup>		
	percent		
Total operating revenues	43	18	18
Total operating expenditures	45	18	18
Capital expenditures	45	4	5

#### Notes:

1. Firms with less than 6 employees were not surveyed. Therefore, there was a high rate of imputation for this size group.

2. The proportion of the total value of the category that is imputed.

#### Source:

Statistics Canada, Environment Accounts and Statistics Division.

### Waste disposal and recycling

Imputation for missing values in the disposal and recycling sections involved a different set of processes. As these two sections on both the business sector survey and the government sector survey were identical, the results from the two surveys were easily combined. This made it possible to remove duplicate data and to obtain a completed response from partial responses. For example, those facilities where a local government owned a landfill but contracted out the operation of that landfill and both the government body and the contracted business reported for the landfill. The duplicated data were removed so that each landfill was reported for only once. Also, each of the two respondents may not have been able to report for all aspects of the facility but by combining responses a completed record could be obtained. To illustrate, a firm may have omitted the total quantity of waste disposed to the landfill but the municipality may have reported that value.

After as much information as possible could be gleaned from the completed survey forms, many of the missing values were obtained through an intensive period of follow-up through email or telephone calls. The remaining values were obtained from provincial and local government contacts, industry experts and publicly available sources such as the Internet.

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.

### 2.4.3 Data limitations

Every effort has been made to ensure that the estimates presented in this report are of both high quality and reliability. However, it is important to understand the limitations of the data presented. This knowledge will allow readers to make informed decisions before conducting further research or analysis using these estimates.

#### Coverage

As discussed in Section 2.3.5 the estimates presented in this report refer only to that material entering the waste stream and do not cover any waste that may be managed on-site by a company or household. While the majority of residential waste is handled by municipalities or private businesses, and thus included in the survey coverage, it is believed that a significant quantity of non-residential waste is managed on-site by industrial generators. Agricultural waste is to a large extent not covered by these surveys. This waste is typically managed on-site or by specialized firms that are not classified by NAICS as part of the waste management industry. In addition, these data do not include materials that were processed for reuse and resale, for example wholesale of scrap metals or used clothing or those materials that are collected through deposit return systems and which are not processed at a material recovery facility.

#### Classification and measurement of waste flows

At this time, improvements are being made to standardize definitions of waste concepts and methods to calculate waste flows in Canada. While with each survey cycle these concepts are approaching a state of inter-provincial uniformity, some inconsistencies remain. For example, some jurisdictions consider the reuse of asphalt as recycling while other jurisdictions do not. In addition, various methods of measurement exist. Some facilities measure waste quantities by weight while other use volume and still others have no method of measurement. As reporting standards are agreed upon, Statistics Canada's waste management surveys will be revised appropriately.

## 2.5 Comparability of data and related sources

### 2.5.1 Comparisons between data sources

As mentioned in the previous section, without a standardized system of classification and measurement it is difficult to compare quantities of waste and recyclables between municipalities. Issues of confidentiality also impede these comparisons.

The province of Quebec conducts its own waste management surveys. In order to reduce response burden the provincial survey results are used for the Quebec estimates presented in this report. For the 2002 survey cycle, significant improvements were made in the way that Statistics Canada obtains data for Quebec. Prior years' concerns about comparability with province do not apply to the 2002 reference year. Some minor differences remain but are being resolved through the continued cooperation between Statistics Canada and RECYC-QUÉBEC - the organization responsible for the collection and analysis of waste statistics in Quebec.<sup>1</sup>

### 2.5.2 Comparisons over time

Data obtained from the 2002 survey are comparable with data from previous years for the following variables:

- Disposal data: Comparable with 1994, 1996, 1998 and 2000
- Recycling data: Comparable with 1996, 1998 and 2000
- Waste generation data: Comparable with 1998 and 2000
- Business sector financial data: Most variables comparable with 1995, 1996, 1998 and 2000. Some variables have been added or dropped from cycle to cycle.
- Local government sector financial data: Most variables comparable with 1994, 1996, 1998 and 2000. Some variables have been added or dropped from cycle to cycle.

Some of the data for the years and variables listed above have been revised and the user should consult the Environment Accounts and Statistics Division for the latest estimates.

### 2.5.3 Revisions

In 2002, further improvements were made to the classification of recyclable materials which allowed for more precise allocations of material quantities to material types. Also, exports of wastes - which were not previously included in the disposal estimates - were included in these estimates for the first time in 2002. As a result of these changes, in addition to the change in the reporting relationship between Statistics Canada and the province of Quebec, revisions were made to the 2000 generation and diversion estimates so that these data could be compared with those for 2002.

1. These quantities are derived from a survey administered by RECYC-QUÉBEC. In order to make these data comparable with other provincial data, metal waste quantities generated by the Construction and Demolition sector have been removed from the RECYC-QUÉBEC totals. When these wastes are included, Québec's diversion rate was 42% in 2002.



The on going development of nationally consistent methodologies will aid making future year to year comparisons possible.

Data for the most recent year are subject to revisions. The overall biennial rate of revision for the disposal and diversion quantity data has been approximately 4% in each the past three survey cycles. Higher rates sometimes occur at the province/territory level. Revisions to financial and employment data have been negligible.

## 2.5.4 Measurement issues

Waste diversion generally refers to material which has avoided disposal through a combination of processes and actions, and refers to activities which handle the waste in such a way that it is not disposed of in landfills or incinerators.<sup>1</sup>

However, it must be noted that the generation and diversion figures presented in this report should be used with some caution. They are a proxy for total waste generation and diversion in Canada. There are several points to consider when using these data.

First, the diversion figures include only materials that were processed for recycling or reuse at publicly or privately owned material recycling facilities. The data do not include materials that were processed and reused by a business or public body on site as part of its production process or as part of a secondary economic activity. Those materials never entered the non-hazardous waste stream and therefore are not considered to be waste for the purposes of this survey.

Second, it is acknowledged that data from a large portion of the “reuse” category are not included in these tables. For

example, used clothing that is donated to a retailer and re-sold is excluded, as are used appliances that are refurbished and resold. Deposit-return materials, such as beer bottles, are considered to be “reuse” and are not included in these tables unless they have been processed at a material recovery facility.

Third, these data do not include those materials managed by wholesalers of scrap metal, plastics or paper. As with the other data in this report, these data cover only those firms whose primary source of income accrues from waste management activities and those public bodies that provide waste management services.

Fourth, the agricultural sector is largely excluded from these data. Waste and recyclable materials (e.g., dead livestock, manure) from farms are generally managed on-site by the producer or managed by firms who specialize in the management of agricultural waste. Most of these businesses are not classified as part of the waste management industry as defined by the North American Industry Classification System (NAICS).<sup>2</sup>

Fifth, contaminated soil that is used as landfill cover or some other beneficial purpose at a disposal facility (e.g. the building of berms) is excluded from these data. Other high tonnage excluded materials that should be noted are asphalt from roadworks, as well as debris from land clearing operations (e.g. soil, brush, stumps).

Finally, composting data include tonnages managed through centralized programs that are owned and operated by municipalities or waste management boards or commissions as well as those facilities that are privately owned and operated. They do not include estimates for non-centralized composting programs such as backyard composting bins.

As a consequence of these exclusions, recycling activities undertaken by certain sectors (e.g., industrial, agricultural) are underestimated in the data contained herein.

1. GAP Team, June 15, 2000, *Manual on Generally Accepted Principles (GAP) for Calculating Municipal Solid Waste Flow*. Toronto, p. 15.

2. Text Box 2.2 provides more information on NAICS.

Table 2.2

### Survey Area Population (Disposal Data) as a Percentage of Total Provincial and Territorial Population, 2002

Province/Territory	Surveyed population	Population <sup>1</sup>	Surveyed population percentage of total provincial population	Population uncovered by survey
	number	2002	percent	
Newfoundland and Labrador	378 211	519 270	73	27
Prince Edward Island	136 998	136 998	100	0
Nova Scotia	934 392	934 392	100	0
New Brunswick	750 183	750 183	100	0
Quebec <sup>2</sup>	7 443 491	7 443 491	100	0
Ontario	11 700 880	12 096 627	97	3
Manitoba	991 322	1 155 492	86	14
Saskatchewan	636 646	995 490	64	36
Alberta	2 940 938	3 114 390	94	6
British Columbia	3 689 871	4 114 981	90	10
Yukon Territory	21 534	30 123	71	29
Northwest Territories	27 845	41 434	67	33
Nunavut	11 163	28 740	39	61
<b>Canada</b>	<b>29 663 474</b>	<b>31 361 611</b>	<b>95</b>	<b>5</b>

**Note:**

1. Statistics Canada, CANSIM, Table 051-0001, "Estimates of population, by age group and sex, Canada, provinces and territories, annual".

**Source:**

## Text Box 2.4

**Definitions****Composting**

Composting is an aerobic biological treatment process used most frequently in Canada at this time for management of biodegradable residential waste such as leaf and yard waste or food wastes.

**Construction and demolition waste (C&D)**

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

**Disposal facility**

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

**Disposal fees**

These are fees that are paid to the owner, lessor or operator of a landfill for the right to dispose of waste within that landfill. These fees can be assessed on a weight-based (e.g., per tonne), volume-based (per cubic metre) or per item (fees that differ according to the type of material being disposed, such as white goods or tires) basis. Disposal fees are sometimes known as tipping fees.

**Diversions**

Diversions represents the quantity of materials diverted from disposal facilities and represents the sum of all materials processed for recycling or reuse at an off-site recycling or composting facility.

**Generation**

Total generation is the sum of total non-hazardous residential and non-residential solid waste disposed of in an off-site disposal facility and the total materials processed for recycling at an off-site recycling facility.

**Hazardous waste**

Includes all materials designated as hazardous, due to their nature or quantity, and requiring special handling techniques as specified by legislation or regulation.

**Incineration**

Incineration, in the context of waste, refers to the burning of waste. Most jurisdictions in Canada consider incineration to be disposal.

**Institutional, commercial and industrial (IC&I) waste**

IC&I Waste (Industrial, Commercial, and Institutional) is the waste generated by all non-residential sources in a municipality, and is excluded from the residential waste stream. This includes:

- industrial waste, which is generated by manufacturing, and primary and secondary industries, and is managed off-site from the manufacturing operation, and is generally picked up under contract by the private sector.
- commercial waste is generated by commercial operations such as shopping centres, restaurants, offices, etc. Some commercial waste (from small street-front stores, etc.) may be picked up by the municipal collection system along with the residential waste;
- institutional waste is generated by institutional facilities such as schools, hospitals, government facilities, seniors homes, universities, etc. This waste is generally picked up under contract with the private sector.

**Non-residential waste**

Includes municipal solid non-hazardous waste generated by industrial, commercial and institutional sources as well as waste generated by construction and demolition activities.

**Other waste management activity revenue**

These may include consulting fees, education programs or other revenue streams that are not listed in the Financial and Employment Section of the questionnaire.

**Recyclable material**

Any material that has reached the end of its useful life in the form or purpose for which it was initially made and that can be recycled into a material that has value as a feedstock in another production process.

**Recycling**

Recycling is the process whereby a material (e.g., glass, metal, plastic, paper) is diverted from the waste stream and remanufactured into a new product or is used as a raw material substitute.

Text Box 2.4

**Definitions (continued)**

**Residential wastel**

Includes solid waste from residential sources which includes all households and includes waste that is picked up by the municipality (either using its own staff or through contracting firms) and waste from residential sources that is taken by the generator to depots, transfer stations and disposal facilities.

**Sanitary landfill**

A site, on land, that is used primarily for the disposal of waste materials. The contents of landfills can include garbage which is not processed, and also residual material from processing operations (MRF residues, incinerator ash, compost residues, etc).

**Transfer facility**

A facility at which wastes transported by vehicles involved in collection are transferred to other vehicles that will transport the wastes to a disposal or recycling facility.

**Waste**

There have been several definitions of waste proposed in recent years. One common thread among these definitions is the concept that *waste is a material that is unwanted by its producer*. The unwanted materials may be by-products of a 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, a package that has been opened and emptied of its contents or an apple eaten to the core are all similar insofar as they have lost their original inherent value from the consumers perspective.

**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 and composting).

**Waste management industry**

For the purposes of these surveys, the waste management industry broadly includes all firms and public bodies operating in Canada that provide the services of collection, transportation, diversion, treatment or disposal of waste or recyclable materials.

## **Annex A: Statistical Tables**

**Table A.1  
Waste Disposal, Diversion and Generation per capita, all Sources, by Province and Territory, 2000 and 2002**

Province/Territory	Disposal <sup>1</sup>		Diversion		Generation		Rate of diversion per capita	
	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002
	kilograms per capita						percent	
Newfoundland and Labrador	742	725	80	74	822	799	10	9
Prince Edward Island	x	x	x	x	x	x	20	28
Nova Scotia	416	417	150	182	566	598	26	30
New Brunswick	550	551	152	164	702	715	22	23
Quebec <sup>2</sup>	787	745	209	234	996	979	21	24
Ontario	764	797	202	200	966	997	21	20
Manitoba	798	776	188	217	986	993	19	22
Saskatchewan	804	799	147	147	951	946	15	16
Alberta	914	928	140	189	1 054	1 117	13	17
British Columbia	636	667	278	269	914	936	30	29
Yukon Territory, Northwest Territories and Nunavut	x	x	x	x	x	x	3	10
<b>Canada</b>	<b>753</b>	<b>760</b>	<b>199</b>	<b>211</b>	<b>952</b>	<b>971</b>	<b>21</b>	<b>22</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. Total amount of non-hazardous waste disposed in public and private waste disposal facilities. This includes waste that is exported out of the source province or country for disposal. This does not include waste disposed in hazardous waste disposal facilities nor waste managed by the waste generator on site.

2. These data are derived from a survey administered by RECYC-QUÉBEC. In order to make these data comparable with other provincial data, some waste quantities generated by the Construction and Demolition sector have been removed from the RECYC-QUÉBEC totals.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

**Table A.2  
Disposal of Waste, by Source and by Province and Territory, 2000 and 2002<sup>1</sup>**

Province/Territory	Residential sources		Industrial, commercial and institutional sources		Construction and demolition sources		Total waste disposed	
	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002
	tonnes							
Newfoundland and Labrador	x	216 218	146 843	140 377	x	19 999	398 818	376 593
Prince Edward Island	x	x	x	x	x	x	x	x
Nova Scotia	171 627	169 649	x	176 625	x	42 921	391 827	389 194
New Brunswick	198 603	203 506	x	154 812	x	55 288	415 058	413 606
Quebec <sup>2</sup>	2 679 000	2 876 000	2 655 000	2 261 000	472 200	406 800	5 806 200	5 543 800
Ontario	3 318 478	3 438 408	4 606 409	5 193 240	1 006 714	1 013 985	8 931 600	9 645 633
Manitoba	451 505	412 612	x	405 954	x	77 990	914 511	896 556
Saskatchewan	272 104	278 692	x	441 109	x	75 323	821 946	795 124
Alberta	824 990	866 398	x	1 380 306	x	643 590	2 750 004	2 890 294
British Columbia	890 789	936 774	1 264 056	1 346 669	426 490	461 458	2 581 336	2 744 901
Yukon Territory, Northwest Territories and Nunavut	x	x	x	x	x	x	x	x
<b>Canada</b>	<b>9 069 170</b>	<b>9 455 204</b>	<b>11 203 613</b>	<b>11 563 999</b>	<b>2 896 087</b>	<b>2 816 528</b>	<b>23 168 870</b>	<b>23 835 730</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. Total amount of non-hazardous waste disposed in public and private waste disposal facilities. This includes waste that is exported out of the source province or country for disposal. This does not include waste disposed in hazardous waste disposal facilities nor waste managed by the waste generator on site.

2. These data are derived from a survey administered by RECYC-QUÉBEC. In order to make these data comparable with other provincial data, some waste quantities generated by the Construction and Demolition sector have been removed from the RECYC-QUÉBEC totals.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

Table A.3  
**Materials Prepared for Recycling, by Type and by Province and Territory, 2002<sup>1</sup>**

Type of Materials	N.L.	P.E.I.	N.S.	N.B.	Que. <sup>2</sup>	Ont.	Man.	Sask.	Alta.	B.C.	Y.T., N.W.T. and Nvt.	Canada		
												2000 <sup>f</sup>	2002	
tonnes														
Newsprint	x	x	22 131	6 764	..	544 752	45 165	15 564	57 201	104 065	x	x	660 454	800 043
Cardboard and boxboard	x	x	12 476	12 231	..	407 325	x	18 207	46 230	178 251	x	x	557 867	705 856
Mixed paper	x	x	2 627	4 265	946 000 <sup>3</sup>	328 443	4 245	14 194	28 466	190 047	x	x	1 712 843	1 519 958
Glass	x	x	2 824	x	71 000	173 905	2 619	x	x	34 231	x	x	342 928	339 132
Ferrous metals	x	x	2 775	x	111 000	267 254	x	x	x	127 925	x	x	715 216	808 596
Copper and aluminum	x	x	x	x	11 000	19 927	x	x	x	1 965	x	x	54 585	44 070
Other metals	x	0	x	x	..	49 071	x	x	10 595	40 376	x	x	167 857	117 560
Plastics	x	x	1 560	1 038	52 000	42 770	2 548	910	8 280	34 100	x	x	170 637	152 266
Construction and demolition	0	x	53 359	30 153	213 000	225 282	581	x	x	162 168	0	0	494 683	702 202
Organics	0	x	62 341	62 725	246 000	293 328	16 261	x	261 069	198 996	x	x	979 787	1 170 790
Other materials	x	0	1 117	1 262	93 000	63 442	9 067	x	41 730	32 997	x	x	281 679	259 321
<b>Total</b>	<b>38 386</b>	<b>x</b>	<b>169 724</b>	<b>122 957</b>	<b>1 743 000</b>	<b>2 415 498</b>	<b>250 880</b>	<b>146 607</b>	<b>589 642</b>	<b>1 105 121</b>	<b>x</b>	<b>x</b>	<b>6 138 536</b>	<b>6 619 794</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. This information covers only those companies and local waste management organizations that reported they prepared non-hazardous material for recycling.

2. These data are derived from a survey administered by RECYC-QUÉBEC. In order to make these data comparable with other provincial data, some waste quantities generated by the Construction and Demolition sector have been removed from the RECYC-QUÉBEC totals.

3. Includes all paper fibres.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

Table A.4  
**Materials Prepared for Recycling, by Source and by Province and Territory, 2000 and 2002<sup>1</sup>**

Province/Territory	Residential sources		Industrial, commercial and institutional sources		Construction and demolition sources		All sources	
	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002
tonnes								
Newfoundland and Labrador	x	15 073	x	x	x	x	43 010	38 386
Prince Edward Island	x	x	x	x	x	x	x	x
Nova Scotia	75 165	82 363	x	x	x	x	140 789	169 724
New Brunswick	44 697	52 685	x	61 620	x	8 653	114 896	122 957
Quebec <sup>2</sup>	496 000	595 000	926 000	935 000	117 000	213 000	1 539 000	1 743 000
Ontario	872 859	949 830	1 356 460	1 320 952	132 557	144 716	2 361 876	2 415 498
Manitoba	50 416	81 923	x	160 796	x	8 161	215 671	250 880
Saskatchewan	33 797	42 376	x	x	x	x	150 043	146 607
Alberta	169 565	293 300	x	262 537	x	33 805	422 594	589 642
British Columbia	402 209	417 403	x	586 719	x	100 999	1 128 115	1 105 121
Yukon Territory, Northwest Territories and Nunavut	x	x	x	x	x	x	x	x
<b>Canada</b>	<b>2 173 236</b>	<b>2 553 134</b>	<b>3 572 428</b>	<b>3 511 308</b>	<b>392 874</b>	<b>536 345</b>	<b>6 138 536</b>	<b>6 619 794</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. The figures in this table cover only those companies and local waste management organizations that reported non-hazardous recyclable material preparation activities.

2. These data are derived from a survey administered by RECYC-QUÉBEC. In order to make these data comparable with other provincial data, some waste quantities generated by the Construction and Demolition sector have been removed from the RECYC-QUÉBEC totals.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

**Table A.5  
Quantity of Total Waste Materials Generated, by Source and by Province and Territory, 2000 and 2002**

Province/Territory	Residential sources		Industrial, commercial and institutional sources		Construction and demolition sources		Total generation	
	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002
	tonnes							
Newfoundland and Labrador	x	231 291	x	x	x	x	441 828	414 979
Prince Edward Island	x	x	x	x	x	x	x	x
Nova Scotia	246 792	252 012	x	x	x	x	532 616	558 918
New Brunswick	243 300	256 190	x	216 432	x	63 941	529 954	536 563
Quebec <sup>1</sup>	3 175 000	3 471 000	3 581 000	3 196 000	589 200	619 800	7 345 200	7 286 800
Ontario	4 191 337	4 388 239	5 962 868	6 514 191	1 139 271	1 158 701	11 293 476	12 061 131
Manitoba	501 921	494 535	x	566 750	x	86 151	1 130 182	1 147 436
Saskatchewan	305 901	321 069	x	x	x	x	971 989	941 731
Alberta	994 555	1 159 697	x	1 642 843	x	677 395	3 172 598	3 479 935
British Columbia	1 292 999	1 354 177	x	1 933 387	x	562 457	3 709 451	3 850 021
Yukon Territory, Northwest Territories and Nunavut	x	x	x	x	x	x	x	x
<b>Canada</b>	<b>11 242 405</b>	<b>12 008 338</b>	<b>14 776 041</b>	<b>15 075 307</b>	<b>3 288 961</b>	<b>3 371 880</b>	<b>29 307 405</b>	<b>30 455 524</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. These data are derived from a survey administered by RECYC-QUÉBEC. In order to make these data comparable with other provincial data, some waste quantities generated by the Construction and Demolition sector have been removed from the RECYC-QUÉBEC totals.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

**Table A.6  
Quantity of Total Residential Waste Generated, by Province and Territory, 2000 and 2002**

Province/Territory	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002
	tonnes		kilograms per capita	
Newfoundland and Labrador	x	231 291	x	445
Prince Edward Island	x	x	x	x
Nova Scotia	246 792	252 012	262	270
New Brunswick	243 300	256 190	322	342
Quebec <sup>1</sup>	3 175 000	3 471 000	430	466
Ontario	4 191 337	4 388 239	359	363
Manitoba	501 921	494 535	438	428
Saskatchewan	305 901	321 069	299	323
Alberta	994 555	1 159 697	330	372
British Columbia	1 292 999	1 354 177	319	329
Yukon Territory, Northwest Territories and Nunavut	x	x	x	x
<b>Canada</b>	<b>11 242 405</b>	<b>12 008 338</b>	<b>365</b>	<b>383</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. These data are derived from a survey administered by RECYC-QUÉBEC. In order to make these data comparable with other provincial data, some waste quantities generated by the Construction and Demolition sector have been removed from the RECYC-QUÉBEC totals.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

Table A.7

### Percentage of Waste Diverted from Disposal, by Source and by Province and Territory, 2000 and 2002

Province/Territory	Residential sources		Industrial, commercial and institutional sources		Construction and demolition sources		All sources	
	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002	2000 <sup>f</sup>	2002
	percent							
Newfoundland and Labrador	8	7	14	14	1	2	10	9
Prince Edward Island	25	39	18	21	3	4	20	28
Nova Scotia	30	33	24	22	19	46	26	30
New Brunswick	18	21	26	28	17	14	22	23
Quebec <sup>1</sup>	16	17	26	29	20	34	21	24
Ontario	21	22	23	20	12	12	21	20
Manitoba	10	17	29	28	1	9	19	22
Saskatchewan	11	13	20	18	4	10	15	16
Alberta	17	25	16	16	2	5	13	17
British Columbia	31	31	33	30	20	18	30	29
Yukon Territory, Northwest Territories and Nunavut	3	16	3	9	0	0	3	10
<b>Canada</b>	<b>19</b>	<b>21</b>	<b>24</b>	<b>23</b>	<b>12</b>	<b>16</b>	<b>21</b>	<b>22</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. These data are derived from a survey administered by RECYC-QUÉBEC. In order to make these data comparable with other provincial data, some waste quantities generated by the Construction and Demolition sector have been removed from the RECYC-QUÉBEC totals. Including these wastes, Québec's diversion rate was 42% in 2002.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

Table A.8

### Waste Management Industry: Business Sector Characteristics, by Province and Territory, 2000 and 2002<sup>1</sup>

Province/Territory	Businesses <sup>2</sup>		Total employees <sup>3</sup>		Operating revenues <sup>4</sup>		Operating expenditures <sup>4</sup>		Capital expenditures <sup>4</sup>	
	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002
	number				thousand dollars					
Newfoundland and Labrador	47	41	456	396	22 636	25 039	20 056	27 822	4 906	3 702
Prince Edward Island	8	13	104	170	7 200	8 553	6 623	13 259	x	x
Nova Scotia	84	85	850	713	80 401	60 519	74 992	51 640	18 872	8 226
New Brunswick	76	73	739	827	53 910	62 714	50 950	55 402	23 308	4 858
Quebec	579	563	5 536	6 256	715 832	938 500	663 160	729 258	91 515	77 813
Ontario	437	436	9 606	9 114	1 555 995	1 764 767	1 306 588	1 521 260	177 428	161 334
Manitoba	49	53	565	598	90 706	96 694	60 101	84 226	5 546	6 879
Saskatchewan	48	49	475	563	58 785	62 235	42 064	55 083	6 516	3 798
Alberta	174	203	2 736	2 639	377 943	428 115	315 733	359 499	38 588	33 487
British Columbia	260	292	3 028	2 936	464 941	645 672	444 382	456 402	47 113	37 746
Yukon Territory, Northwest Territories and Nunavut	20	23	102	143	10 911	13 569	9 555	13 446	x	x
<b>Employment size group</b>										
Under 20 employees	1 502	1 545	6 619	6 392	726 073	919 115	637 370	775 469	158 320	75 101
20 to 49 employees	164	159	4 780	4 494	636 696	658 887	588 425	573 481	86 020	39 873
50 and more employees	71	81	12 798	13 469	2 076 491	2 528 375	1 768 408	2 018 345	182 922	226 784
<b>Canada</b>	<b>1 737</b>	<b>1 785</b>	<b>24 197</b>	<b>24 355</b>	<b>3 439 260</b>	<b>4 106 377</b>	<b>2 994 203</b>	<b>3 367 296</b>	<b>427 262</b>	<b>341 758</b>

**Notes:**

Figures may not add up to totals due to rounding.

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

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

3. Includes full and part-time employees.

4. Includes only those revenues and expenditures related to waste management activities.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.



**Table A.9  
Operating Revenues of Waste Management Businesses, by Activity and by Province and Territory, 2002<sup>1</sup>**

Province/Territory	Collection and transportation for disposal	Collection and transportation for recycling or reuse	Operation of a waste transfer facility	Preparation of materials for recycling or reuse	Operation of a disposal facility	Operation of a hazardous waste facility	Sewage treatment	Sale of recovered materials	Other waste management revenues	Total operating revenues	
										2000	2002
thousand dollars											
Newfoundland and Labrador	8 917	8 501	x	556	x	1 724	228	213	x	22 636	25 039
Prince Edward Island	733	x	x	370	x	49	119	78	228	7 200	8 553
Nova Scotia	38 474	10 175	805	5 141	2 154	542	422	1 527	1 297	80 401	60 519
New Brunswick	25 391	8 926	4 590	6 415	2 351	3 019	1 193	8 317	2 517	53 910	62 714
Quebec	399 610	117 020	32 975	60 185	128 841	115 628	12 444	44 885	27 810	715 832	938 500
Ontario	857 379	259 729	184 683	92 967	160 515	33 831	13 582	155 811	50 941	1 555 995	1 764 767
Manitoba	36 209	5 676	656	10 803	3 449	1 337	541	34 808	3 214	90 706	96 694
Saskatchewan	32 827	x	718	131	582	51	101	x	x	58 785	62 235
Alberta	166 094	56 533	x	44 981	52 661	26 516	5 401	x	30 308	377 943	428 115
British Columbia	204 207	180 021	13 900	83 985	43 112	11 435	5 483	53 111	21 321	464 941	645 672
Yukon Territory, Northwest Territories and Nunavut	9 694	529	139	610	1 019	79	460	428	523	10 911	13 569
<b>Employment size group</b>											
Under 20 employees	404 988	92 683	49 544	51 502	155 035	23 385	28 703	38 787	74 489	726 073	919 115
20 to 49 employees	231 508	149 267	30 289	60 628	27 287	33 586	8 288	94 936	23 096	636 696	658 887
50 and more employees	1 142 090	416 617	170 362	194 013	215 256	137 240	2 984	202 122	47 693	2 076 491	2 528 375
<b>Canada</b>	<b>1 778 586</b>	<b>658 567</b>	<b>250 195</b>	<b>306 143</b>	<b>397 578</b>	<b>194 212</b>	<b>39 974</b>	<b>335 845</b>	<b>145 278</b>	<b>3 439 260</b>	<b>4 106 377</b>

**Notes:**

Figures may not add up to totals due to rounding.

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

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

**Table A.10  
Waste and Recyclables Collection and Transportation Activities of Businesses, by Source of Revenue and by Province and Territory, 2002**

Province/Territory	Source of revenue for waste collection			Source of revenue for recyclables collection		
	Industrial, commercial and institutional		Other	Industrial, commercial and institutional		Other
	Residential			Residential		
percent						
Newfoundland and Labrador	22	78	0	60	40	0
Prince Edward Island	21	79	0	44	56	0
Nova Scotia	29	70	1	32	57	11
New Brunswick	28	71	1	25	74	1
Quebec	31	66	3	36	60	4
Ontario	19	80	1	43	56	1
Manitoba	18	82	0	54	45	1
Saskatchewan	11	87	2	7	93	0
Alberta	13	86	1	37	63	0
British Columbia	20	80	0	21	79	0
Yukon Territory, Northwest Territories and Nunavut	33	66	1	45	55	0
<b>Canada</b>	<b>21</b>	<b>77</b>	<b>2</b>	<b>34</b>	<b>65</b>	<b>1</b>

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

Table A.11  
**Operating Expenditures by Waste Management Businesses, by Type and by Province and Territory, 2002**

Province/Territory	Wages and salaries	Benefits	Fuel and electricity	Other materials and supplies	Maintenance and repairs	Depreciation	Tipping fees	Operating licences and permits	Purchased services	Overhead and administration	Other expenses	Total operating expenses	
												2000	2002
thousand dollars													
N.L.	7 939	605	934	1 156	2 492	1 511	7 215	145	794	1 733	3 299	20 056	27 822
P.E.I.	2 714	617	x	1 043	1 017	1 109	936	38	297	x	x	6 623	13 259
N.S.	13 221	1 620	2 937	2 057	4 930	3 163	12 808	386	2 123	3 789	4 606	74 992	51 640
N.B.	13 846	1 446	3 414	3 164	4 230	3 586	9 365	343	2 810	5 080	8 119	50 950	55 402
Que.	166 817	16 686	37 007	49 760	63 786	54 136	139 923	4 261	46 698	55 562	94 623	663 160	729 258
Ont.	344 330	49 962	60 289	92 225	101 176	83 444	347 703	7 542	152 700	107 092	174 797	1 306 588	1 521 260
Man.	16 306	2 053	3 478	3 289	5 751	5 374	15 125	222	2 333	7 491	22 802	60 101	84 226
Sask.	11 395	1 145	2 219	1 671	3 816	3 120	9 743	261	3 369	3 203	15 143	42 064	55 083
Alta.	81 638	9 463	15 139	14 174	25 153	21 597	58 369	1 995	12 660	30 772	88 539	315 733	359 499
B.C.	101 741	13 138	17 956	21 360	30 046	27 958	93 465	2 758	16 399	38 632	92 947	444 382	456 402
Y.T., N.W.T. and Nvt.	4 611	225	x	728	950	1 194	1 360	118	985	x	x	9 555	13 446
<b>Employment size group</b>													
Under 20 employees	195 172	16 144	38 549	42 060	55 383	59 145	156 409	9 168	39 769	71 240	92 431	637 370	775 469
20 to 49 employees	127 571	14 770	29 275	60 498	37 142	30 227	73 877	3 234	20 477	45 752	130 659	588 425	573 481
50 and more employees	441 816	66 045	78 535	88 069	150 821	116 820	465 727	5 666	180 922	138 276	285 649	1 768 408	2 018 345
<b>Canada</b>	<b>764 558</b>	<b>96 959</b>	<b>146 358</b>	<b>190 628</b>	<b>243 346</b>	<b>206 192</b>	<b>696 013</b>	<b>18 068</b>	<b>241 168</b>	<b>255 267</b>	<b>508 739</b>	<b>2 994 203</b>	<b>3 367 296</b>

**Notes:**

Figures may not add up to totals due to rounding.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

Table A.12  
**Capital Expenditures by Waste Management Businesses, by Type and by Province and Territory, 2002<sup>1</sup>**

Province/Territory	Vehicles	Other machinery and equipment	Construction and refurbishing of facilities	Maintenance and repairs	Other	Total capital expenditures		Average capital expenditures per business	
						2000	2002	2000	2002
thousand dollars									
Newfoundland and Labrador	1 147	468	1 946	x	x	4 906	3 702	104	90
Prince Edward Island	1 450	x	x	x	x	x	x	x	x
Nova Scotia	4 855	1 626	x	1 620	x	18 872	8 226	225	97
New Brunswick	3 099	889	351	461	57	23 308	4 858	307	67
Quebec	28 582	18 159	19 773	7 484	3 816	91 515	77 813	158	138
Ontario	60 570	28 132	x	9 617	x	177 428	161 334	406	370
Manitoba	3 681	1 920	281	x	x	5 546	6 879	113	130
Saskatchewan	1 881	1 069	552	277	18	6 516	3 798	136	78
Alberta	20 349	7 195	2 673	1 661	1 610	38 588	33 487	222	165
British Columbia	21 914	8 450	3 539	2 636	1 206	47 113	37 746	181	129
Yukon Territory, Northwest Territories and Nunavut	873	x	x	x	x	x	x	x	x
<b>Employment size group</b>									
Under 20 employees	43 300	12 350	11 524	7 243	684	158 320	75 101	105	49
20 to 49 employees	17 675	11 056	3 211	6 840	1 091	86 020	39 873	525	251
50 and more employees	87 424	45 427	41 944	10 660	41 328	182 922	226 784	2 576	2 800
<b>Canada</b>	<b>148 400</b>	<b>68 834</b>	<b>56 679</b>	<b>24 742</b>	<b>43 103</b>	<b>427 262</b>	<b>341 758</b>	<b>246</b>	<b>191</b>

**Notes:**

Figures may not add up to totals due to rounding.

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

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

**Table A.13  
Employment by Waste Management Businesses, by Province and Territory, 2000 and 2002**

Province/Territory	Businesses <sup>1</sup>		Full-time employees		Part-time employees		Total employees <sup>2</sup>	
	2000	2002	2000	2002	2000	2002	2000	2002
	number							
Newfoundland and Labrador	47	41	400	268	56	128	456	396
Prince Edward Island	8	13	x	x	x	x	104	170
Nova Scotia	84	85	801	645	49	68	850	713
New Brunswick	76	73	560	713	179	114	739	827
Quebec	579	563	5 198	5 911	338	345	5 536	6 256
Ontario	437	436	9 306	8 744	300	370	9 606	9 114
Manitoba	49	53	543	560	22	38	565	598
Saskatchewan	48	49	445	520	30	43	475	563
Alberta	174	203	2 673	2 456	63	183	2 736	2 639
British Columbia	260	292	2 940	2 759	88	177	3 028	2 936
Yukon Territory, Northwest Territories and Nunavut	20	23	x	x	x	x	102	143
<b>Employment size group</b>								
Under 20 employees	1 502	1 545	6 186	5 979	433	413	6 619	6 392
20 to 49 employees	164	159	4 456	4 138	324	356	4 780	4 494
50 and more employees	71	81	12 403	12 740	395	729	12 798	13 469
<b>Canada</b>	<b>1 737</b>	<b>1 785</b>	<b>23 045</b>	<b>22 857</b>	<b>1 152</b>	<b>1 498</b>	<b>24 197</b>	<b>24 355</b>

**Notes:**

Figures may not add up to totals due to rounding.

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

2. All employment estimates obtained from administrative data were counted as full-time employees.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

**Table A.14  
Current Expenditures by Local Governments on Waste Management, by Activity and by Province and Territory, 2000 and 2002<sup>1</sup>**

Province/ Territory	Collection and transportation		Tipping fees		Operation of disposal facilities		Operation of transfer stations <sup>2</sup>		Operation of recycling facilities		Operation of organic waste processing facilities		Other		Total current expenditures	
	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002	2000	2002
	thousand dollars															
N.L.	4 140	3 041	423	656	3 623	876	..	x	0	0	0	0	x	x	8 541	4 632
P.E.I.	x	x	2 196	x	x	x	..	0	0	0	x	x	x	x	x	x
N.S.	18 475	18 580	x	2 796	30 116	28 283	..	978	4 957	6 043	5 010	5 281	x	1 705	70 859	63 667
N.B.	5 903	6 575	9 955	6 205	17 097	18 007	..	x	2 496	3 924	x	1 178	x	x	38 294	39 665
Que. <sup>3</sup>	145 453	153 650	38 077	31 347	99 161	97 050	..	24 729	19 793	27 970	7 519	10 323	24 180	32 595	334 183	377 663
Ont.	220 969	272 215	82 414	51 492	123 460	107 294	..	26 019	38 843	44 700	10 676	8 483	42 342	55 322	518 704	565 525
Man.	27 327	17 259	634	x	8 555	6 400	..	602	x	x	x	x	871	x	38 037	35 359
Sask.	10 597	10 074	x	49	7 777	4 638	..	202	839	933	x	140	618	678	19 967	16 715
Alta.	77 869	65 405	x	5 832	28 940	24 700	..	4 770	7 690	7 357	x	x	6 210	x	129 834	147 424
B.C.	94 802	76 056	20 434	23 627	95 392	104 896	..	42 571	7 891	18 319	2 485	4 912	11 913	8 567	232 917	278 948
Y.T., N.W.T. and Nvt.	x	x	0	0	x	x	..	0	x	x	0	x	x	x	x	x
<b>Canada</b>	<b>611 093</b>	<b>624 807</b>	<b>159 972</b>	<b>127 470</b>	<b>416 594</b>	<b>393 418</b>	<b>..</b>	<b>100 557</b>	<b>83 114</b>	<b>114 969</b>	<b>31 589</b>	<b>41 977</b>	<b>101 588</b>	<b>132 546</b>	<b>1 403 954</b>	<b>1 535 743</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. Includes current expenditures directed toward waste management services.

2. Question on expenditures dedicated to the operation of transfer stations was asked for the first time in 2002.

3. Total is derived from surveys conducted by Public Institutions Division, breakdowns are imputed or are derived from administrative sources.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division and Public Institutions Division.

Table A.15  
**Current Expenditures by Local Governments on Waste Management, by Service Provider and by Province and Territory, 2000 and 2002**

Province/Territory	Current expenditures <sup>2</sup>		Waste management service provider <sup>1</sup>					
			In-house employees <sup>3</sup>		Contractors		Other government	
	2000	2002	2000	2002	2000	2002	2000	2002
	thousand dollars		percent					
Newfoundland and Labrador	8 541	4 632	72	57	24	x	4	x
Prince Edward Island	x	x	x	x	x	x	x	x
Nova Scotia	70 859	63 667	27	32	70	64	2	4
New Brunswick	38 294	39 665	57	57	39	31	4	11
Quebec <sup>4</sup>	334 183	377 663	15	30	85	70	..	..
Ontario	518 704	565 525	44	44	51	52	5	4
Manitoba	38 037	35 359	64	61	35	38	1	1
Saskatchewan	19 967	16 715	74	73	26	27	0	0
Alberta	129 834	147 424	50	64	48	34	2	2
British Columbia	232 917	278 948	36	31	54	62	10	8
Yukon Territory, Northwest Territories and Nunavut	x	x	x	74	x	x	0	x
<b>Canada</b>	<b>1 403 954</b>	<b>1 535 743</b>	<b>37</b>	<b>40</b>	<b>59</b>	<b>56</b>	<b>4</b>	<b>4</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. Columns indicate percentage of current expenditures spent on programs delivered by own employees versus payments to contractors or to other governments or government bodies for services.

2. Current expenditures cover collection and transportation of waste for disposal or recyclables/organics, tipping fees, disposal facilities, organics processing facilities and other waste management expenditures for surveyed municipalities.

3. Full-time and part-time employees working in the waste management activities of the municipality. Employment figures are only for surveyed municipalities. They do not include estimates of waste management employment in municipalities with less than 4000 population unless a disposal facility is situated within it.

4. Total current expenditures are derived from surveys conducted by Public Institutions Division. The expenditure breakdowns and number of employees are imputed or are derived from administrative sources.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division and Public Institutions Division.

Table A.16  
**Current Expenditures by Local Governments on Waste Management, by Service Provider and by Activity, 2000 and 2002<sup>1</sup>**

Activity	2000			2002		
	In-house employees <sup>2</sup>	Contractors	Other governments	In-house employees <sup>2</sup>	Contractors	Other governments
	percent					
Collection and transportation	34	66	0	41	59	0
Tipping fees	5	67	28	17	52	31
Operation of disposal facilities	48	50	2	41	59	1
Operation of transfer stations <sup>3</sup>	..	..	..	38	60	2
Operation of recycling facilities	31	69	0	36	63	1
Operation of organics processing facilities	34	64	2	36	62	2
Other	66	33	2	72	25	2
<b>All waste management activities</b>	<b>37</b>	<b>59</b>	<b>4</b>	<b>40</b>	<b>56</b>	<b>4</b>

**Notes:**

1. Proportion of current expenditure by service provider includes estimates for surveyed municipalities, as well as estimates for municipalities that were not surveyed.

2. Full-time and part-time employees working in the waste management activities of the municipality. Employment figures are only for surveyed municipalities. They do not include estimates of waste management employment in municipalities with less than 4000 population unless a disposal facility is situated within it.

3. Question on expenditures dedicated to the operation of transfer stations was asked for the first time in 2002.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division.

Table A.17

**Capital Expenditures by Local Governments on Waste Management, by Activity and by Province and Territory, 2002<sup>1</sup>**

Province/Territory	Collection and transportation	Disposal facilities	Recycling facilities	Organics processing facilities	Other	Total capital expenditures	
						2000	2002
thousand dollars							
Newfoundland and Labrador	x	x	x	x	x	835	1 255
Prince Edward Island	x	0	0	x	x	x	x
Nova Scotia	357	588	x	332	x	11 059	2 385
New Brunswick	x	3 788	2 180	x	173	4 646	6 697
Quebec <sup>2</sup>	4 603	22 631	7 839	2 108	5 027	6 047	42 210
Ontario	6 638	46 265	18 569	2 088	7 090	53 691	80 651
Manitoba	443	1 158	161	496	201	1 855	2 458
Saskatchewan	1 374	2 686	1 130	x	x	2 856	5 868
Alberta	2 057	5 768	752	2 132	4 023	18 760	14 732
British Columbia	2 040	8 509	785	299	1 137	8 117	12 769
Yukon Territories, Northwest Territories and Nunavut	x	x	x	x	x	x	x
<b>Canada</b>	<b>18 766</b>	<b>92 330</b>	<b>31 957</b>	<b>8 595</b>	<b>20 495</b>	<b>109 053</b>	<b>172 143</b>

**Notes:**

Figures may not add up due to rounding.

1. Includes capital expenditures that were made by local governments and other public organizations for waste management purposes.

2. Total capital expenditures are derived from surveys conducted by Public Institutions Division. The expenditure breakdowns are imputed or are derived from administrative sources.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division and Public Institutions Division.

Table A.18

**Revenue Sources of Local Governments from Waste Management Services, by Province and Territory, 2002<sup>1</sup>**

Province/Territory	Utility bill payments	Contract revenues	Sale of recovered materials		Disposal facility royalties	Grants, loans etc.	Other revenues (bag tags, permits)	Total revenues	
			Tipping fees					2000	2002
thousand dollars									
Newfoundland and Labrador	365	x	x	x	x	x	x	3 714	4 340
Prince Edward Island	x	0	0	x	0	0	x	x	x
Nova Scotia	x	1 694	3 377	20 693	x	5 047	972	29 583	32 028
New Brunswick	x	x	x	29 391	x	x	462	26 836	32 934
Quebec <sup>2</sup>	3 110	7 371	37 512	72 431	7 851	5 026	10 745	108 568	144 046
Ontario	5 879	13 931	70 899	136 897	14 838	9 500	20 308	226 241	272 251
Manitoba	x	x	7 701	11 124	x	x	x	19 403	20 114
Saskatchewan	x	x	x	3 792	x	x	x	10 741	9 289
Alberta	54 098	2 670	8 326	24 177	x	x	1 216	78 054	109 111
British Columbia	90 670	2 999	11 479	129 576	x	x	4 333	187 601	241 371
Yukon Territory, Northwest Territories and Nunavut	x	x	x	x	0	x	x	x	x
<b>Canada</b>	<b>164 219</b>	<b>29 702</b>	<b>141 474</b>	<b>434 886</b>	<b>42 245</b>	<b>23 233</b>	<b>39 997</b>	<b>701 369</b>	<b>875 757</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. Includes revenues collected specifically for waste management purposes by local governments and other public waste management organizations that provided waste management services in 2002. They do not include general municipal tax revenues.

2. Figures are derived from administrative sources.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division and Public Institutions Division.

Table A.19  
**Waste Management Employment by Local Governments, by Province and Territory, 2002<sup>1</sup>**

Province/Territory	Full-time employees	Part-time employees	Total employees <sup>2</sup>	
			2000 <sup>f</sup>	2002
		number		
Newfoundland and Labrador	100	35	109	135
Prince Edward Island	x	x	x	x
Nova Scotia	239	56	235	295
New Brunswick	x	x	167	199
Quebec <sup>3</sup>	1 733	297	1 928	2 030
Ontario	2 391	410	2 608	2 801
Manitoba	218	67	248	285
Saskatchewan	192	71	262	263
Alberta	831	247	989	1 078
British Columbia	766	168	783	934
Yukon Territory, Northwest Territories and Nunavut	x	x	x	x
<b>Canada</b>	<b>6 702</b>	<b>1 428</b>	<b>7 405</b>	<b>8 130</b>

**Notes:**

Figures may not add up to totals due to rounding.

1. Includes local governments, waste management boards and commissions and provincial bodies responsible for the delivery of waste management services.

2. Includes full-time and part-time employees working in the waste management activities of surveyed municipalities. No estimate has been made for non-surveyed municipalities.

3. Figures are derived from administrative sources.

**Source:**

Statistics Canada, Environment Accounts and Statistics Division and Public Institutions Division.

## **Annex B: Questionnaires**



Environment Accounts and Statistics Division

# Waste Management Industry Survey: Business Sector, 2002

Confidential when completed

Collected under authority of *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S19.

Français au verso

### Correct as required

Legal name

Operating name

C/O

Address

City

Province/Territory

Postal Code



## Please read before completing

### PURPOSE OF 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 as well as public policy makers to make sound decisions based on data that apply specifically to the waste management industry. Statistics Canada is also conducting a survey of government sector waste management for 2002. Together these surveys will provide a comprehensive picture of waste management in Canada.

### CONFIDENTIALITY

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

### AUTHORITY

This survey is conducted under the authority of the *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S19. **COMPLETION OF THIS QUESTIONNAIRE IS A LEGAL REQUIREMENT UNDER THE STATISTICS ACT.**

### 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, Ontario K1A 0T6**

Telephone (toll-free): **1-888-659-8229**

Fax: **1-800-755-5514**

Email: **enviro.oid.waste@statcan.ca**

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

### HOW TO COMPLETE THIS QUESTIONNAIRE

Use a black or blue pen

Fill in a circle  OR Enter a number in a box

OR Print in a box

**IMPORTANT:** Please refer to the Guide before answering. If your response for an item is zero, please write "0" in the corresponding box rather than leaving the cell blank. Where a response in dollars is requested, please answer in Canadian Dollars.

### Please return this questionnaire within 30 days of receipt

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

### Statistics Canada use only

Rec			Ed.			Kyd.			Bat			Coll.	FSC
D	M	Y	D	M	Y	D	M	Y					

4-2300-4: 2002-12-11 STC/DCN-291-04165



# SECTION 1

## Business type

**1.1 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 fill out a separate report for the other provinces/territories in which you operate. You may wish to photocopy this questionnaire or you may call us toll-free at 1-888-659-8229 to request additional questionnaires.

Province/territory for which this report applies

101

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**1.2 Did this company operate in more than one province/territory in 2002?**

102

Yes



Go to Question 1.3

No



Go to Question 1.4

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

104

--

**1.4 Please indicate which of the following waste management activities this company provides in the province/territory indicated above.**

**Fill in circle for all that apply.**

105

Non-hazardous waste collection services, residential

106

Non-hazardous waste collection services, non-residential

107

Hazardous waste collection services

108

Non-hazardous recyclable material collection services, residential

109

Non-hazardous recyclable material collection services, non-residential

110

Non-hazardous waste transfer facility services

111

Hazardous waste transfer facility services

112

Non-hazardous recyclable material recovery and preparation services (MRFs and composting facilities)

113

Hazardous waste treatment services

114

Non-hazardous waste disposal facility services

115

Hazardous waste disposal facility services

116

Sewage treatment and containment

117

Other *(Please specify)*

118

--

## Reporting period

**1.5 Financial information should be reported for this company's most recent fiscal year that ended at any time between April 1, 2002 and March 31, 2003.**

**Specify fiscal year**

Start:

119

Day	Month	Year

End:



120

Day	Month	Year

## SECTION 2

### Collection and preparation of waste and recyclables (including compostables and composting)

2.1 In 2002, did this company collect and/or transport waste for disposal?

- 246  Yes, to transfer station
- 201  Yes, to a disposal facility  *Go to Question 2.2*
- No  *Go to question 2.4*

2.2 Report the percentage of this company's revenue from waste collection activities earned from the following:

From residential collection

203

Percentage  
%

--	--	--

From non-residential (IC&I) collection

204

--	--	--

From other collection activities (e.g., private individuals or community associations) <sup>207</sup> *Please specify :*

205

--	--	--

**Total should equal 100%**

206

--	--	--

2.3 Indicate the sources of the waste collected by your company.  
(Please see Guide for information)

Residential

208

Percentage  
%

--	--	--

Non-residential (IC&I)

209

--	--	--

Construction and Demolition

210

--	--	--

**Total should equal 100%**

211

--	--	--

2.4 In 2002, did this company collect recyclable or compostable materials?

- 212  Yes  *Go to Question 2.5*       No  *Go to Question 2.7*

2.5 Report the percentage of this company's revenue from recyclable material (including compostables) collection activities earned from the following:

From residential collection

214

Percentage  
%

--	--	--

From non-residential (IC&I) collection

215

--	--	--

From other collection activities (e.g., private individuals or community associations) <sup>218</sup> *Please specify :*

216

--	--	--

**Total should equal 100%**

217

--	--	--

## SECTION 2 - Concluded

### Collection and preparation of waste and recyclables (including compostables and composting)

2.6 Indicate the sources of the recyclable and compostable materials collected by your company.  
(Please see Guide for information)

		Percentage %
Residential	219	<input type="text"/> <input type="text"/> <input type="text"/>
Non-residential (IC&I)	220	<input type="text"/> <input type="text"/> <input type="text"/>
Construction and Demolition	221	<input type="text"/> <input type="text"/> <input type="text"/>
<b>Total should equal 100%</b>	222	<input type="text"/> <input type="text"/> <input type="text"/>

2.7 In 2002, did your company operate a facility (municipally or privately owned) that processed compostable materials or prepared materials for recycling ? (e.g. MRFs and central composting facilities).

223  Yes ➤ Go to Question 2.8

No ➤ Go to Section 3

2.8 If yes, please complete the following.

Name and address of facility	Owner of facility (Please specify name)	Sources of materials (percentage) (Please see Guide for information)			
		Residential Percentage %	Non-residential (IC&I) Percentage %	Construction and demolition Percentage %	Totals (should equal 100%) %
225 <input type="text"/> <input type="text"/>	227 <input type="text"/> <input type="text"/>	228 <input type="text"/> <input type="text"/>	229 <input type="text"/> <input type="text"/>	230 <input type="text"/> <input type="text"/>	231 <input type="text"/> <input type="text"/>
232 <input type="text"/> <input type="text"/>	234 <input type="text"/> <input type="text"/>	235 <input type="text"/> <input type="text"/>	236 <input type="text"/> <input type="text"/>	237 <input type="text"/> <input type="text"/>	238 <input type="text"/> <input type="text"/>
239 <input type="text"/> <input type="text"/>	241 <input type="text"/> <input type="text"/>	242 <input type="text"/> <input type="text"/>	243 <input type="text"/> <input type="text"/>	244 <input type="text"/> <input type="text"/>	245 <input type="text"/> <input type="text"/>

Please list additional facilities in the Comments Section (Section 8).

## SECTION 3

### Waste diversion

#### 3.1 If your company collected recyclables

AND/OR

if your company owned and/or operated a Material Recovery Facility (MRF), or recycled material was sorted on site (at a disposal facility or transfer station), please indicate the quantities of materials collected and/or prepared or processed at the facility in 2002.

Please exclude compostable materials that were collected or processed but include this information in Question 3.2. If your company did not perform these activities, please go to Section 4.

Type of material	Quantity collected and delivered to recycling facility (tonnes)	Quantity prepared or processed at the facility (tonnes)
Newsprint, phone books, magazines	301 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	314 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Corrugated cardboard and boxboard	302 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	315 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Mixed paper fibre	303 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	316 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Glass	304 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	317 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Ferrous metals	305 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	318 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Copper	306 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	319 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Aluminum	307 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	320 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Other non-ferrous metals	308 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	321 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Mixed metals	309 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	322 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Plastic	310 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	323 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Mixed construction and demolition waste	311 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	324 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Other (Please specify): <sup>366</sup> <input type="text"/>	312 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	325 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>Totals</b>	313 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	326 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

## SECTION 3 - Concluded

### Waste diversion

#### 3.2 Composting

In 2002, did your company own and/or operate a central composting facility?

<sup>327</sup>  Yes ➤ Please complete the following

No ➤ Go to Section 4

Name and address of facility	Name of owner, if not self	Year opened	Quantity of materials entering the facility (tonnes)	Quantity of compost / peat produced (tonnes)	Aerobic process? (If yes fill in circle)	Anaerobic process? (digestion) (If yes fill in circle)
329 <input type="text"/> <input type="text"/>	330 <input type="text"/> <input type="text"/>	331 <input type="text"/>	332 <input type="text"/>	333 <input type="text"/>	334 <input type="radio"/>	335 <input type="radio"/>
336 <input type="text"/> <input type="text"/>	337 <input type="text"/> <input type="text"/>	338 <input type="text"/>	339 <input type="text"/>	340 <input type="text"/>	341 <input type="radio"/>	342 <input type="radio"/>
343 <input type="text"/> <input type="text"/>	344 <input type="text"/> <input type="text"/>	345 <input type="text"/>	346 <input type="text"/>	347 <input type="text"/>	348 <input type="radio"/>	349 <input type="radio"/>
350 <input type="text"/> <input type="text"/>	351 <input type="text"/> <input type="text"/>	352 <input type="text"/>	353 <input type="text"/>	354 <input type="text"/>	355 <input type="radio"/>	356 <input type="radio"/>
<b>Totals</b>			364 <input type="text"/>	365 <input type="text"/>		

Please provide information about any additional facilities at end of the questionnaire in the Comments section.

Thank you.

## SECTION 4

### Disposal facilities : quantities and types of waste

4.1 Did this company own or operate a disposal facility or transfer station for non-hazardous waste in 2002?

401  Yes ➤ Go to Question 4.2

No ➤ Go to Section 5

4.2 For each disposal facility or transfer station that you operated in the province/territory in 2002, indicate the name and location (street or highway address), type of facility and the sources and amount of waste disposed of in the facility as measured by weigh scales or by providing your best estimate. (Please see Guide for information and definitions)

Name and address of disposal facility	Owner of this facility if not self	Please indicate type of facility as Landfill (LF), Incinerator (IN), or Transfer station (TS) (fill in one only)	Approximate percentage of total waste disposed in facility, by source			Weigh scale present?  (If yes fill in circle)	Quantity of waste disposed of in the facility in 2002  (tonnes)
			Residential	Non-residential (C&I)	Construction and demolition		
403 <input type="text"/> <input type="text"/>	404 <input type="text"/> <input type="text"/>	405 <input type="text"/>	407 <input type="text"/>	408 <input type="text"/>	409 <input type="text"/>	410 <input type="radio"/>	411 <input type="text"/> <input type="text"/> <input type="text"/>
412 <input type="text"/> <input type="text"/>	413 <input type="text"/> <input type="text"/>	414 <input type="text"/>	416 <input type="text"/>	417 <input type="text"/>	418 <input type="text"/>	419 <input type="radio"/>	420 <input type="text"/> <input type="text"/> <input type="text"/>
421 <input type="text"/> <input type="text"/>	422 <input type="text"/> <input type="text"/>	423 <input type="text"/>	425 <input type="text"/>	426 <input type="text"/>	427 <input type="text"/>	428 <input type="radio"/>	429 <input type="text"/> <input type="text"/> <input type="text"/>
430 <input type="text"/> <input type="text"/>	431 <input type="text"/> <input type="text"/>	432 <input type="text"/>	434 <input type="text"/>	435 <input type="text"/>	436 <input type="text"/>	437 <input type="radio"/>	438 <input type="text"/> <input type="text"/> <input type="text"/>
439 <input type="text"/> <input type="text"/>	440 <input type="text"/> <input type="text"/>	441 <input type="text"/>	443 <input type="text"/>	444 <input type="text"/>	445 <input type="text"/>	446 <input type="radio"/>	447 <input type="text"/> <input type="text"/> <input type="text"/>
448 <input type="text"/> <input type="text"/>	449 <input type="text"/> <input type="text"/>	450 <input type="text"/>	452 <input type="text"/>	453 <input type="text"/>	454 <input type="text"/>	455 <input type="radio"/>	456 <input type="text"/> <input type="text"/> <input type="text"/>
457 <input type="text"/> <input type="text"/>	458 <input type="text"/> <input type="text"/>	459 <input type="text"/>	461 <input type="text"/>	462 <input type="text"/>	463 <input type="text"/>	464 <input type="radio"/>	465 <input type="text"/> <input type="text"/> <input type="text"/>
466 <input type="text"/> <input type="text"/>	467 <input type="text"/> <input type="text"/>	468 <input type="text"/>	470 <input type="text"/>	471 <input type="text"/>	472 <input type="text"/>	473 <input type="radio"/>	474 <input type="text"/> <input type="text"/> <input type="text"/>
<b>Total waste disposed in facilities</b>							475 <input type="text"/> <input type="text"/> <input type="text"/>

## SECTION 4 - Concluded

### Disposal facilities : quantities and types of waste

4.3 Did your landfill(s) receive bottom ash from solid waste or sewage sludge incineration?

573  Yes ➤

Quantity (tonnes)	
575	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

No ➤ *Go to Question 4.4*

4.4 Did your landfill(s) receive contaminated soil?

576  Yes ➤

Quantity (tonnes)	
578	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

No ➤ *Go to Question 4.5*

If "Yes", was this amount included in your response to question 4.2 ?

579  Yes  No ➤ *Go to Question 4.5*

4.5 Did you collect and combust landfill gas (e.g. methane) at a landfill owned or operated by your company?

476  Yes  No ➤ *Go to Section 5*

## SECTION 5

### Exports and imports of non-hazardous waste for disposal, compostable materials or recyclable materials

5.1 Did your company transport waste for disposal or materials for recycling or reuse to another province/territory or country in 2002? Include direct shipments and shipments from transfer stations.

601  Yes ➤ Go to Question 5.2

No ➤ Go to Question 5.4

5.2 Check all that apply and indicate quantities transported.

	(If yes, fill in circle)	Quantity of waste for disposal (tonnes)	Quantity of materials for recycling or composting (tonnes)
Transported to a facility in another province/territory	606 <input type="radio"/>	607 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	608 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Transported to a facility in another country	609 <input type="radio"/>	610 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	611 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>Total waste and recyclable materials exported</b>		612 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	613 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

5.3 Please identify the names and locations of all facilities (outside of the province/territory that you are reporting for) to which the (above) waste for disposal or materials for recycling or reuse were taken.

Waste (fill in circle)	Name of Facility	Owner	Address
614 <input type="radio"/>	615 <input type="text"/>	616 <input type="text"/>	617 <input type="text"/>
618 <input type="radio"/>	619 <input type="text"/>	620 <input type="text"/>	621 <input type="text"/>
622 <input type="radio"/>	623 <input type="text"/>	624 <input type="text"/>	625 <input type="text"/>
626 <input type="radio"/>	627 <input type="text"/>	628 <input type="text"/>	629 <input type="text"/>

Recycling (fill in circle)	Name of Facility	Owner	Address
630 <input type="radio"/>	631 <input type="text"/>	632 <input type="text"/>	633 <input type="text"/>
634 <input type="radio"/>	635 <input type="text"/>	636 <input type="text"/>	637 <input type="text"/>
638 <input type="radio"/>	639 <input type="text"/>	640 <input type="text"/>	641 <input type="text"/>
642 <input type="radio"/>	643 <input type="text"/>	644 <input type="text"/>	645 <input type="text"/>



## SECTION 5 - Concluded

### Exports and imports of non-hazardous waste for disposal, compostable materials or recyclable materials

5.4 Was waste from outside this province/territory disposed in this company's disposal facilities?

646  Yes ➤ Go to Question 5.5

No ➤ Go to Section 6

5.5 Fill in all that apply and indicate quantities disposed.

	(If yes, fill in circle)	Quantity of waste imported (tonnes)
Waste from other provinces/territories disposed of in your facilities	650 <input type="radio"/>	651 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Waste from other countries disposed of in your facilities	652 <input type="radio"/>	653 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>Total waste imported</b>		654 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

## SECTION 6

### Hazardous waste treatment and disposal

6.1 Did this company operate a facility(ies) to treat, incinerate or landfill (or otherwise contain) hazardous waste in 2002?

701  Yes ➤ Go to Question 6.2

No ➤ Go to Section 7

6.2 Did this company:

Own or lease the facility(ies)

703  Yes  No

Operate the facility(ies) for another owner ?

705  Yes  No

6.3 What quantity of hazardous waste did this company treat or dispose of in 2002?

(tonnes)

707

6.4 Of the total in Question 6.3, please indicate the percentage of materials treated or disposed, by type.

Percentage  
%

Organic solvents, solutions and still bottoms

708

Oils and greases, oily mixtures and residues

709

Heavy metal solutions and residues

710

Inorganic sludges, solutions and residues

711

Pesticide and herbicide wastes

712

PCB wastes

713

Other (miscellaneous chemicals, paint, biomedical waste, etc.)

714

**Total should equal 100%**

715

6.5 Did your company recover recyclable materials (e.g., mercury, oils, lead, nickel) from these operations?

716  Yes ➤ Go to Question 6.6

No ➤ Go to Section 7

6.6 If yes, what quantity of recyclable materials did this company recover?

(tonnes)

718

## SECTION 7

### Financial and employment information

#### 7.1 Gross Operating Revenues

Indicate this company's 2002 gross revenues (to the nearest dollar) from the provision of each of the following services.

Collection of waste for disposal

Dollars \$			
801	<input type="text"/>	<input type="text"/>	<input type="text"/>
802	<input type="text"/>	<input type="text"/>	<input type="text"/>
803	<input type="text"/>	<input type="text"/>	<input type="text"/>
804	<input type="text"/>	<input type="text"/>	<input type="text"/>
805	<input type="text"/>	<input type="text"/>	<input type="text"/>
806	<input type="text"/>	<input type="text"/>	<input type="text"/>
807	<input type="text"/>	<input type="text"/>	<input type="text"/>
808	<input type="text"/>	<input type="text"/>	<input type="text"/>
809	<input type="text"/>	<input type="text"/>	<input type="text"/>
810	<input type="text"/>	<input type="text"/>	<input type="text"/>
811	<input type="text"/>	<input type="text"/>	<input type="text"/>

Collection of materials for recycling or reuse

Operation of a waste transfer facility

Preparing materials for recycling (e.g., operation of a MRF or composting facility)

Operation of a non-hazardous waste disposal facility (e.g., landfill or incinerator)  
(include disposal fees received)

Operation of a hazardous waste treatment, containment, incineration or disposal facility  
(include disposal fees received)

Sewage treatment/containment

Other waste management revenues  
(e.g., consulting, brokerage fees)

Specify: <sup>812</sup>

Sale of recovered materials

Other non-waste management revenues

Specify: <sup>813</sup>

**Total revenues from all activities**

#### 7.2 Gross Operating Expenses

Please report this company's 2002 gross operating expenses (to the nearest dollar).

Wages and salaries

Employer contributions to pension, medical and unemployment insurance plans, etc.

Fuel and electricity

Other materials and supplies

Maintenance and repairs

Depreciation

Fees paid for waste disposal (e.g., tipping fees)

Operating licenses and permits

Purchased services (e.g. contractors, consultants)

Overhead and administration

Other

Specify: <sup>824</sup>

**Total operating expenses**

Dollars \$			
814	<input type="text"/>	<input type="text"/>	<input type="text"/>
815	<input type="text"/>	<input type="text"/>	<input type="text"/>
816	<input type="text"/>	<input type="text"/>	<input type="text"/>
817	<input type="text"/>	<input type="text"/>	<input type="text"/>
818	<input type="text"/>	<input type="text"/>	<input type="text"/>
819	<input type="text"/>	<input type="text"/>	<input type="text"/>
820	<input type="text"/>	<input type="text"/>	<input type="text"/>
821	<input type="text"/>	<input type="text"/>	<input type="text"/>
834	<input type="text"/>	<input type="text"/>	<input type="text"/>
835	<input type="text"/>	<input type="text"/>	<input type="text"/>
822	<input type="text"/>	<input type="text"/>	<input type="text"/>
823	<input type="text"/>	<input type="text"/>	<input type="text"/>

## SECTION 7 - Concluded

### Financial and employment information

#### 7.3 Capital Expenditures

Report this company's 2002 capital expenditures (to the nearest dollar). Include new (non-amortized) and used assets purchased in Canada and all imported assets (new and used).

Vehicles

Dollars \$		
825	<input type="text"/>	<input type="text"/>

All other machinery and equipment

826	<input type="text"/>	<input type="text"/>
-----	----------------------	----------------------

Construction and refurbishing of facilities (excluding residences)

827	<input type="text"/>	<input type="text"/>
-----	----------------------	----------------------

Maintenance and repairs of new and used assets

828	<input type="text"/>	<input type="text"/>
-----	----------------------	----------------------

Other

Specify:

831

829	<input type="text"/>	<input type="text"/>
-----	----------------------	----------------------

**Total capital expenditures**

830	<input type="text"/>	<input type="text"/>
-----	----------------------	----------------------

#### 7.4 Employment

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. Do not include contract employees or sub-contractor's employees.

**Total employees**

Number of employees	
Full-time	Part-time
832 <input type="text"/>	833 <input type="text"/>

## SECTION 8

### Certification

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

Signature



Date

Day		Month		Year	

Name of person completing this report

Telephone

Title of person completing this report

Fax

Email address

Web site address

8.2 Approximately how long did it take to collect the data and complete this survey?

901

Hours

8.3 In the future, would you prefer to receive this survey in an electronic format?

902

Yes

No

### Comments

Please provide any comments you may have about this survey (e.g., length, ease of completion, suggestions for future questions, suggestions about the format). Also, please use this space or attach additional documentation if you wish to provide additional information about your waste management activities.

If you have any questions, please contact:  
Operations and Integration Division, JT-2-C4,  
Statistics Canada, Ottawa, Ontario, K1A 0T6  
Telephone (toll free) 1-888-659-8229  
Fax: 1-800-755-5514  
Email: [enviro.oid.waste@statcan.ca](mailto:enviro.oid.waste@statcan.ca)

Please return this  
questionnaire in the  
envelope provided

**THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY!**



Environment Accounts and Statistics Division

# Waste Management Industry Survey: Government Sector, 2002

Confidential when completed

Collected under authority of *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S19.

*Français au verso*

## Correct as required

Name of government, agency, commission or other waste management organization

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

C/O

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Address

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

City

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Province/Territory

--	--

Postal Code

--	--	--	--	--	--



### Please read before completing

#### PURPOSE OF 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 as well as public policy makers to make sound decisions based on data that apply specifically to the waste management industry. Statistics Canada is also conducting a survey of business sector waste management for 2002. Together these surveys will provide a comprehensive picture of waste management in Canada.

#### CONFIDENTIALITY

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

#### AUTHORITY

This survey is conducted under the authority of the *Statistics Act*, Revised Statutes of Canada, 1985, Chapter S19. **COMPLETION OF THIS QUESTIONNAIRE IS A LEGAL REQUIREMENT UNDER THE STATISTICS ACT.**

#### 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, Ontario K1A 0T6**

Telephone (toll-free): **1-888-659-8157**  
Fax: **1-800-755-5514**  
Email: **enviro.oid.localgovt@statcan.ca**

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

#### Statistics Canada use only

Rec			Ed.			Kyd.			Bat	Coll.	FSC
D	M	Y	D	M	Y	D	M	Y			

4-2300-5: 2002-11-29 STC/NAD-291-04478

## GENERAL INSTRUCTIONS

### Please read before completing

This survey is intended for the jurisdiction responsible for the operation of a waste management programme.

The term "jurisdiction" is used to represent any government, government agency, or waste management board or commission.

If your jurisdiction is an association of municipalities, an upper tier or a special organization with a mandate to manage waste for a number of lower-tier governments then please respond for the municipalities under your jurisdiction. All references in the questionnaire to your jurisdiction should be interpreted as all municipalities under your jurisdiction. Please provide a list of member municipalities.

If you represent a lower-tier government and you do not maintain statistics on any of the functions covered by this questionnaire, please return this form and indicate in the Comments Section who we may contact to obtain this information.

If your jurisdiction can only report some of the data required, please report the information that you can and indicate in the Comments Section who we might contact to obtain the missing information.

There are 7 sections to this survey. Please answer all sections of this survey unless we advise you to do otherwise.

If your municipality does not collect data in metric tonnes please convert quantities (truck loads, pounds, etc.) to metric tonnes. If you cannot convert, please indicate what measurement you are using. **Estimate if necessary.**

**Ontario respondents only :** The Ontario Ministry of the Environment has requested access to the individual records of Ontario respondents to this survey. This request is being made in an effort to reduce the burden of response imposed on you, the municipal respondent, by this survey and Ontario Ministry of the Environment survey of waste management activities. Please complete and return the enclosed "Authorization to Release Data" form.

#### HOW TO COMPLETE THIS QUESTIONNAIRE

Use a black or blue pen

Fill in a circle  OR Enter a number in a box

OR Print in a box

**IMPORTANT:** Please refer to the Guide before answering. If your response for an item is zero, please write "0" in the corresponding box rather than leaving the cell blank. Where a response in dollars is requested, please answer in Canadian Dollars.

#### Please return this questionnaire within 30 days of receipt

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

# SECTION 1

## Who are you responding for?

1.1 List all municipalities, cities, villages, towns and townships in your jurisdiction for which you are responding. For each municipality listed please indicate by filling in the appropriate circle, what sections you are completing, as well as the services provided by that municipality.

City / Municipality		Financial and employment (Section 6)	Disposal facilities (Section 4)	Other sections	Services provided by municipality			
					Collection	Disposal	Diversion	Waste management planning / administration
(Please indicate by filling in the circle)								
Your Jurisdiction	101 <input type="text"/>	102 <input type="radio"/>	103 <input type="radio"/>	104 <input type="radio"/>	105 <input type="radio"/>	106 <input type="radio"/>	107 <input type="radio"/>	108 <input type="radio"/>
Municipality # 1	109 <input type="text"/>	110 <input type="radio"/>	111 <input type="radio"/>	112 <input type="radio"/>	113 <input type="radio"/>	114 <input type="radio"/>	115 <input type="radio"/>	116 <input type="radio"/>
Municipality # 2	117 <input type="text"/>	118 <input type="radio"/>	119 <input type="radio"/>	120 <input type="radio"/>	121 <input type="radio"/>	122 <input type="radio"/>	123 <input type="radio"/>	124 <input type="radio"/>
Municipality # 3	125 <input type="text"/>	126 <input type="radio"/>	127 <input type="radio"/>	128 <input type="radio"/>	129 <input type="radio"/>	130 <input type="radio"/>	131 <input type="radio"/>	132 <input type="radio"/>
Municipality # 4	133 <input type="text"/>	134 <input type="radio"/>	135 <input type="radio"/>	136 <input type="radio"/>	137 <input type="radio"/>	138 <input type="radio"/>	139 <input type="radio"/>	140 <input type="radio"/>
Municipality # 5	141 <input type="text"/>	142 <input type="radio"/>	143 <input type="radio"/>	144 <input type="radio"/>	145 <input type="radio"/>	146 <input type="radio"/>	147 <input type="radio"/>	148 <input type="radio"/>
Municipality # 6	149 <input type="text"/>	150 <input type="radio"/>	151 <input type="radio"/>	152 <input type="radio"/>	153 <input type="radio"/>	154 <input type="radio"/>	155 <input type="radio"/>	156 <input type="radio"/>
Municipality # 7	157 <input type="text"/>	158 <input type="radio"/>	159 <input type="radio"/>	160 <input type="radio"/>	161 <input type="radio"/>	162 <input type="radio"/>	163 <input type="radio"/>	164 <input type="radio"/>
Municipality # 8	165 <input type="text"/>	166 <input type="radio"/>	167 <input type="radio"/>	168 <input type="radio"/>	169 <input type="radio"/>	170 <input type="radio"/>	171 <input type="radio"/>	172 <input type="radio"/>
Municipality # 9	173 <input type="text"/>	174 <input type="radio"/>	175 <input type="radio"/>	176 <input type="radio"/>	177 <input type="radio"/>	178 <input type="radio"/>	179 <input type="radio"/>	180 <input type="radio"/>

## Reporting period

1.2 Financial information should be reported for this jurisdiction's most recent fiscal year that ended at any time between April 1, 2002 and March 31, 2003.

Specify fiscal year Start: <sup>181</sup>

Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>

End: <sup>182</sup>

Day	Month	Year
<input type="text"/>	<input type="text"/>	<input type="text"/>



## SECTION 2

### Collection and preparation of waste and recyclables (including compostables and composting)

2.1 Did this jurisdiction administer a programme to collect waste for disposal in 2002?

201

Yes



Go to Question 2.2

No



Go to Question 2.4

2.2 If yes, who collected the waste? (Fill in all that apply.)

This jurisdiction's employees

203

Contractor(s) hired by this jurisdiction

204

(Please specify name(s) of contractor(s))

205

206

2.3 Indicate the sources of the waste collected by or on behalf of this jurisdiction.

Residential

Non-residential (IC&I)

Construction and Demolition

**Total should equal 100%**

**Percentage %**  
(Please see Guide for information)

207

208

209

210

2.4 Did this jurisdiction administer a programme to collect materials for recycling, reuse or composting in 2002?

211

Yes



Go to Question 2.5

No



Go to Question 2.7

2.5 If yes, who collected the materials? (Fill in all that apply.)

This jurisdiction's employees

213

Contractor(s) hired by this jurisdiction

214

(Please specify name(s) of contractor(s))

215

216

2.6 Indicate the sources of the recyclable materials collected  
by or on behalf of this jurisdiction.

Residential

Non-residential (IC&I)

Construction and Demolition

**Total should equal 100%**

**Percentage %**  
(Please see Guide for information)

217

218

219

220

## SECTION 2 - Concluded

### Collection and preparation of waste and recyclables (including compostables and composting)

2.7 In 2002, did your jurisdiction operate a facility (municipally or privately owned) that processed compostable materials or prepared materials for recycling ? (e.g. central composting facilities and MRFs).

221  Yes ➤ Go to Question 2.8

No ➤ Go to Section 3

2.8 If yes, please complete the following.

	Name or address of facility	Operator of facility <i>(Please specify name)</i>	Sources of materials (percentage) % <i>(Please see Guide for information)</i>			
			Residential <i>Percentage %</i>	Non-residential (IC&I) <i>Percentage %</i>	Construction and demolition <i>Percentage %</i>	Totals <i>should equal 100%</i> <i>%</i>
Facility #1	223 <input type="text"/> <input type="text"/>	225 <input type="text"/> <input type="text"/>	226 <input type="text"/> <input type="text"/>	227 <input type="text"/> <input type="text"/>	228 <input type="text"/> <input type="text"/>	229 <input type="text"/> <input type="text"/>
Facility #2	230 <input type="text"/> <input type="text"/>	232 <input type="text"/> <input type="text"/>	233 <input type="text"/> <input type="text"/>	234 <input type="text"/> <input type="text"/>	235 <input type="text"/> <input type="text"/>	236 <input type="text"/> <input type="text"/>
Facility #3	237 <input type="text"/> <input type="text"/>	239 <input type="text"/> <input type="text"/>	240 <input type="text"/> <input type="text"/>	241 <input type="text"/> <input type="text"/>	242 <input type="text"/> <input type="text"/>	243 <input type="text"/> <input type="text"/>

*Please list additional facilities in the Comments Section (Section 7).*

## SECTION 3

### Waste diversion

3.1 If your jurisdiction administered a programme to collect recyclable materials in 2002.

AND/OR

if there was a municipally or privately operated Material Recovery Facility (MRF) in your jurisdiction, or if recyclable material was sorted on site (at a disposal facility or transfer station) please indicate the quantities of materials collected and/or prepared or processed at the facility in 2002.

*Please exclude compostable materials that were collected or processed but include this information in Question 3.2.*

Type of material	Quantity collected and delivered to recycling facility (tonnes)	Quantity prepared or processed at the facility (tonnes)
Newsprint, phone books, magazines	301 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	314 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Corrugated cardboard and boxboard	302 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	315 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Mixed paper fibre	303 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	316 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Glass	304 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	317 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Ferrous metals	305 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	318 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Copper	306 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	319 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Aluminum	307 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	320 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Other non-ferrous metals	308 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	321 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Mixed metals	309 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	322 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Plastic	310 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	323 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Construction and demolition waste	311 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	324 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Other (Please specify) : <sup>366</sup> <input type="text"/>	312 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	325 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>Totals</b>	313 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	326 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

## SECTION 3 - Concluded

### Waste diversion

#### 3.2 Composting

In 2002, did your jurisdiction own and/or operate a central composting facility?

<sup>327</sup>  Yes ➤ Please complete the following  No ➤ Go to Section 4

Name and address of facility	Name of owner, if not self	Year opened	Quantity of materials entering the facility (tonnes)	Quantity of compost / peat produced (tonnes)	Aerobic process? (If yes fill in circle)	Anaerobic process? (digestion) (If yes fill in circle)
329 <input type="text"/> <input type="text"/>	330 <input type="text"/> <input type="text"/>	331 <input type="text"/>	332 <input type="text"/>	333 <input type="text"/>	334 <input type="radio"/>	335 <input type="radio"/>
336 <input type="text"/> <input type="text"/>	337 <input type="text"/> <input type="text"/>	338 <input type="text"/>	339 <input type="text"/>	340 <input type="text"/>	341 <input type="radio"/>	342 <input type="radio"/>
343 <input type="text"/> <input type="text"/>	344 <input type="text"/> <input type="text"/>	345 <input type="text"/>	346 <input type="text"/>	347 <input type="text"/>	348 <input type="radio"/>	349 <input type="radio"/>
350 <input type="text"/> <input type="text"/>	351 <input type="text"/> <input type="text"/>	352 <input type="text"/>	353 <input type="text"/>	354 <input type="text"/>	355 <input type="radio"/>	356 <input type="radio"/>
<b>Totals</b>			364 <input type="text"/>	365 <input type="text"/>		

Please provide information about any additional facilities at the end of the questionnaire in the Comments section.

Thank you.

## SECTION 4

### Disposal facilities : quantities and types of waste

4.1 Did your jurisdiction own or operate a disposal facility or transfer station for non-hazardous waste in 2002?

401  Yes ➤ Go to Question 4.2

No ➤ Go to Section 5

4.2 For each disposal facility or transfer station that you operated in the province/territory in 2002, indicate the name and location (street or highway address), type of facility and the sources and amount of waste disposed of in the facility as measured by weigh scales or by providing your best estimate. (Please see Guide for information and definitions)

Name and address of disposal facility	Operator of facility if not self	Please indicate type of facility as Landfill (LF), Incinerator (IN), or Transfer station (TS) (fill in one only)	Approximate percentage of waste disposed in facility, by source %			Weigh scale present?  (If yes fill in circle)	Quantity of waste disposed of in the facility in 2002  (tonnes)
			Residential	Non-residential (C&I)	Construction and demolition		
403	404	405	407	408	409	410	411
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="text"/>
412	413	414	416	417	418	419	420
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="text"/>
421	422	423	425	426	427	428	429
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="text"/>
430	431	432	434	435	436	437	438
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="text"/>
439	440	441	443	444	445	446	447
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="text"/>
448	449	450	452	453	454	455	456
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="text"/>
457	458	459	461	462	463	464	465
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="text"/>
466	467	468	470	471	472	473	474
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="radio"/>	<input type="text"/>
<b>Total waste disposed in facilities</b>							475
							<input type="text"/>

## SECTION 4 - Concluded

### Disposal facilities : quantities and types of waste

4.3 Did your landfill(s) receive bottom ash from solid waste or sewage sludge incineration?

573  Yes ➤

Quantity (tonnes)	
575	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

No ➤ *Go to Question 4.4*

4.4 Did your landfill(s) receive contaminated soil?

576  Yes ➤

Quantity (tonnes)	
578	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

No ➤ *Go to Question 4.5*

If "Yes", was this amount included in your response to question 4.2 ?

579  Yes  No ➤ *Go to Question 4.5*

4.5 Did you collect and combust landfill gas (e.g. methane) at a landfill owned or operated by your jurisdiction?

476  Yes  No ➤ *Go to Section 5*

## SECTION 5

### Exports and imports of non-hazardous waste for disposal, compostable materials or recyclable materials

5.1 Did your jurisdiction transport waste for disposal or materials for recycling or reuse to another province/territory or country in 2002? Include direct shipments and shipments from transfer stations.

601  Yes ➤ Go to Question 5.2  No ➤ Go to Question 5.4

5.2 Fill in all that apply and indicate quantities transported.

	(If yes fill in circle)	Quantity of waste for disposal (tonnes)	Quantity of materials for recycling or composting (tonnes)
Transported to a facility in another jurisdiction in your province/territory	603 <input type="radio"/>	604 <input type="text"/>	605 <input type="text"/>
Transported to a facility in another province/territory	606 <input type="radio"/>	607 <input type="text"/>	608 <input type="text"/>
Transported to a facility in another country	609 <input type="radio"/>	610 <input type="text"/>	611 <input type="text"/>
<b>Total waste and recyclable materials exported</b>		612 <input type="text"/>	613 <input type="text"/>

5.3 Please identify the names and locations of all facilities (outside of the province/territory that you are reporting for) to which the (above) waste for disposal or materials for recycling or reuse were taken.

Waste (Fill in circle)	Name of Facility	Owner	Address
614 <input type="radio"/>	615 <input type="text"/>	616 <input type="text"/>	617 <input type="text"/>
618 <input type="radio"/>	619 <input type="text"/>	620 <input type="text"/>	621 <input type="text"/>
622 <input type="radio"/>	623 <input type="text"/>	624 <input type="text"/>	625 <input type="text"/>
626 <input type="radio"/>	627 <input type="text"/>	628 <input type="text"/>	629 <input type="text"/>

Recycling (Fill in circle)	Name of Facility	Owner	Address
630 <input type="radio"/>	631 <input type="text"/>	632 <input type="text"/>	633 <input type="text"/>
634 <input type="radio"/>	635 <input type="text"/>	636 <input type="text"/>	637 <input type="text"/>
638 <input type="radio"/>	639 <input type="text"/>	640 <input type="text"/>	641 <input type="text"/>
642 <input type="radio"/>	643 <input type="text"/>	644 <input type="text"/>	645 <input type="text"/>

## SECTION 5 - Concluded

### Exports and imports of non-hazardous waste for disposal, compostable materials or recyclable materials

5.4 Was waste from outside your jurisdiction disposed in your jurisdiction's disposal facilities?

646  Yes ➤ Go to Question 5.5

No ➤ Go to Section 6

5.5 Fill in all that apply and indicate quantities disposed.

	(If yes, fill in circle)	Quantity of waste imported (tonnes)
Waste from another jurisdiction in your province	648 <input type="radio"/>	649 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Waste from other provinces/territories disposed of in your facility	650 <input type="radio"/>	651 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Waste from other countries disposed of in your facility	652 <input type="radio"/>	653 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>Total waste imported</b>		654 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>



## SECTION 6

### Financial and employment information

#### 6.1 Gross Revenues (do not net out expenditures)

Indicate all gross revenues from waste management services (to the nearest dollar) received in 2002 which were not funded by tax revenues and do not net out expenditures

Gross revenues from utility bill payments (for waste management services)

Gross revenues from provision of waste management services to businesses on contract

Gross revenues from the sale of recyclable materials (including processed compost)

Gross revenues from disposal fees received

Royalties received for hosting a waste disposal facility

Grants, interest free loans, federal or provincial non-tax based revenues (including infrastructure or special program grants and loans)

Other non-tax revenues for waste management (e.g. sale of bag tags, sale of composters, other user pay revenues)

**Total gross revenues from waste management services**

Dollars \$		
701	<input type="text"/>	<input type="text"/>
702	<input type="text"/>	<input type="text"/>
703	<input type="text"/>	<input type="text"/>
704	<input type="text"/>	<input type="text"/>
705	<input type="text"/>	<input type="text"/>
706	<input type="text"/>	<input type="text"/>
707	<input type="text"/>	<input type="text"/>
708	<input type="text"/>	<input type="text"/>

#### 6.2 Current Expenditures

Include all current and administrative gross expenditures in 2002 related to waste management (to the nearest dollar) and do not net out revenues

	In-house expenses (e.g., administration and salaries) \$	Payments to contractors \$	Payments to other governments \$	Totals \$
Collection of all waste, recyclables and compostable materials (include Christmas trees, bulky waste and special waste)	709 <input type="text"/>	710 <input type="text"/>	711 <input type="text"/>	712 <input type="text"/>
Disposal fees paid to waste disposal facilities	713 <input type="text"/>	714 <input type="text"/>	715 <input type="text"/>	716 <input type="text"/>
Operation of transfer stations	747 <input type="text"/>	748 <input type="text"/>	749 <input type="text"/>	750 <input type="text"/>
Operation of disposal facilities	717 <input type="text"/>	718 <input type="text"/>	719 <input type="text"/>	720 <input type="text"/>
Operation of recycling facilities	721 <input type="text"/>	722 <input type="text"/>	723 <input type="text"/>	724 <input type="text"/>
Operation of composting facilities	725 <input type="text"/>	726 <input type="text"/>	727 <input type="text"/>	728 <input type="text"/>
Other (Please specify) 746 <input type="text"/>	729 <input type="text"/>	730 <input type="text"/>	731 <input type="text"/>	732 <input type="text"/>
<b>Total current expenditures</b>	733 <input type="text"/>	734 <input type="text"/>	735 <input type="text"/>	736 <input type="text"/>

## SECTION 6 - Concluded

### Financial and employment information

#### 6.3 Capital Expenditures

Report any new (non-amortized) capital expenditures in 2002 according to the target of these expenditures. Include new assets purchased in Canada and all imported assets (new and used).

		Dollars \$
Collection	737	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Disposal facilities	738	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Recycling facilities	739	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Composting facilities	740	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Other (Please specify) <sup>743</sup>		<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<b>Total capital expenditures</b>	742	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

#### 6.4 Employment

Report the usual number of full-time (30 or more hours per week) and part-time (less than 30 hours per week) employees working in the waste management activities of your jurisdiction in 2002 (do not include contract employees or contractor's employees).

		Number of employees	
		Full-time	Part-time
<b>Total employees</b>	744	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	745 <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

## SECTION 7

### Certification

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

Signature



Date

Day		Month		Year	

Name of person completing this report

Telephone

Title of person completing this report

Fax

Email address

Web site address

7.2 Approximately how long did it take to collect the data and complete this survey?

901

Hours

7.3 In the future, would you prefer to receive this survey in an electronic format?

902

Yes

No

### Comments

Please provide any comments you may have about this survey (e.g., length, ease of completion, suggestions for future questions, suggestions about the format). Also, please use this space if you wish to provide additional information about your waste management activities.

If you have any questions, please contact:  
Operations and Integration Division, JT-2-C4,  
Statistics Canada, Ottawa, Ontario, K1A 0T6  
Telephone (toll free) 1-888-659-8229  
Fax: 1-800-755-5514  
Email: [enviro.oid.waste@statcan.ca](mailto:enviro.oid.waste@statcan.ca)

Please return this  
questionnaire in the  
envelope provided

**THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY!**