



Greenhouse Gas Reporting Guide: Collection

This reporting guide is a resource to assist you in submitting Greenhouse Gas (GHG) emissions data related to your residential recycling program's collection operations.

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Introduction

This reporting guide is a resource to assist you in submitting Greenhouse Gas (GHG) emissions data related to your residential recycling program's collection operations.

As per section 4.6.2 of the [Waste Packaging and Paper Stewardship Plan](#) and section 7.2(b) of collectors' Services Agreements, MMSW will be collecting greenhouse gas (GHG) emissions data associated with the program's collection and recycling of residential waste packaging and paper.

In this reporting guide you will find information on how to collect and report your GHG data. Please see the GHG Reporting Guide: Post-Collection and Marketing for information on reporting data from activities associated with transporting, processing and marketing waste packaging and paper at sorting facilities.

If you have any questions, please contact us at greenhousegas@multimaterialsw.ca or 1-855-886-4558.

What are GHG emissions?

GHG emissions are generated from the burning of fossil fuels across a variety of activities associated with the operation of residential recycling programs. GHG emissions can include the many fuel types used in vehicles like trucks or forklifts, as well as the energy used in buildings (electricity, natural gas) for heating and cooling. They also include emissions associated with the manufacturing of paper products (flyers, brochures, utility bill inserts, etc.) which may be used for promotion and education purposes.

When do I need to begin reporting GHG data?

GHG reporting is an annual reporting obligation under section 7.2(b) of collectors' Services Agreement. The first GHG report is due **by January 31, 2021** and will include GHG emissions data from January 1 to December 31, 2020.

GHG reports are due by January 31 each year. For example, GHG data for the January to December, 2021 operational year will be due by January 31, 2022.

How do I report GHG emissions data?

GHG emissions data is to be reporting via the [WeRecycle Portal](#). Please see the GHG Reporting Portal User Guide for more information on submitting your GHG report via the portal.

Maintaining records of how you collect GHG data

MMSW may require additional information regarding your GHG data collection methodology or calculations to ensure accuracy. Please store any supporting documentation related to your data collection in case such information is needed. We recommend storing your GHG-related data in one location (e.g. an Excel spreadsheet) so it is organized and can be easily retrievable.

What GHG data do I need to report for collection-related operations?

MMSW requires you report any emissions from operations related to the collection of waste packaging and paper from your residential recycling program. This includes operations that may or may not be conducted by your own



municipality, regional waste authority or First Nations community. For example, if you have sub-contracted any portion of services for your residential recycling program, those GHG emissions are also to be reported.

As a municipality, regional waste authority or First Nations community providing residential waste packaging and paper recycling services, do you directly:

- Collect waste packaging and paper from residents via depot service?
- Collect waste packaging and paper from residents via curbside service?

If the answer to any of the above is no, then you will need to work with your sub-contractor to obtain the required GHG data from those activities.

Generally, GHG data will come from three activities: **fleet** (collection vehicles), **facilities** (buildings and equipment) and **supplies** (paper for recycling guides, etc.).

Below is a summary of the collection-related GHG emissions data you're required to report annually based on the types of collection: depot, curbside and multi-family. All collectors are also required to report on their paper use.

Depot collection

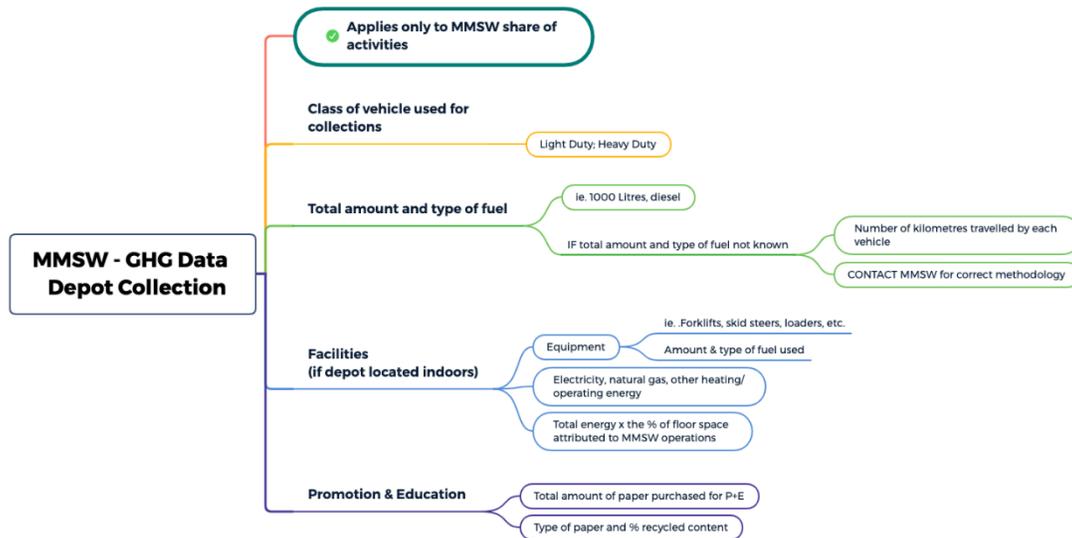
Summary of requested GHG emissions data

Collection fleet:

- Class of vehicles used for depot collection.
- Type of fuel used for depot collection vehicles.
- Total amount of fuel used by collection vehicles by vehicle class.

Collection facilities (if your sub-contractor's depot is located inside a building):

- Type of fossil fuel-based equipment you/sub-contractor use at your/sub-contractor's depot(s), and the amount of fuel you/sub-contractor purchased for it (in litres or cubic metres m³).
- Amount of electricity your/sub-contractor's depot used for lighting, heat, office, etc. (in kWh).
- Amount of natural gas (in GJ or m³) or other fuel types (in L) used to heat your/sub-contractor's depot
- % of depot floor space used for MMSW (how to calculate is detailed below).
- Total paper (by weight) of packaging and paper product recycling-related material purchased (e.g. recycling guides, pamphlets).
- Type of paper purchased for materials as above, and % recycled content.



Fleet

- What classes of vehicles are being used for collection of packaging and paper product from depot households in your program?
 - Light duty truck - (SUVs, minivans, full size vans, pickup trucks with a gross vehicle weight rating under 3856 Kg (8500lbs) and a curb weight under 2722 Kg (6000 lbs).
 - Heavy duty - (road vehicles with a gross vehicle weight over 3856 Kg (8500 lbs) and a curb weight over 2722 Kg (6000 lbs).
- What is the total amount and type of fuel consumed by each vehicle class (e.g. Heavy Duty vehicle; 1,000 litres of diesel)?
 - If the total amount and type of fuel consumed per vehicle class is not available, then we will need to know the number of kilometers travelled by each vehicle type (i.e. total mileage). Please contact MMSW to determine the appropriate methodology for reporting on kilometres travelled.

Program Maintenance/Staff Activity

- fuel usage associated with activities like site inspections or maintenance.

Facilities

GHG from facilities applies only if your depot is located inside a building or is outdoors and uses energy for lighting.

Equipment

MMSW requires data on the kind(s) of fossil fuel-based equipment you use at your depots. For example, does your depot have any forklifts, skid steers, loaders, etc.? Do they run on gasoline, diesel, liquefied petroleum gas (propane) or natural gas?

Remember, this is only equipment that is used for the collection of waste packaging and paper, including staff activity like site inspections or maintenance – it is not to be included if it is only used for the management of waste packaging and paper once it has already been collected.

Please determine the amount of fuel purchased for your/sub-contractor's equipment and record the total in litres. If different pieces of equipment use different fuels, please record the equipment and fuel usage separately. Please also include the percentage of the time this type of equipment is used for MMSW-related use.

Here is an example of how you can record your information or the information received from your sub-contractor/third party in preparation for when you need to submit it to MMSW:

Type of Equipment	Forklift	Type of Equipment	Front-end loader
% of the time dedicated to MMSW materials	25%	% of the time dedicated to MMSW materials	10%
Type of Fuel Used	Diesel	Type of Fuel Used	Diesel
Month	Total Fuel Usage (L)	Month	Total Fuel Usage (L)
January	398	January	612
January	$398 \times .25 = 99.50 \text{ L}$	January	$612 \times .10 = 61 \text{ L}$

Electricity Consumption

Please report how much electricity gets consumed at your depot for the collection of waste packaging and paper. Here is an example of how you could record your information or the information received from your sub-contractor for this section in preparation for reporting through our system:

Month	Usage (kWh)
January	1,394

Typically, this information is available from your electricity bill or from SaskPower.

Please notify us if you are not able to find out the electricity consumption solely for your MMSW depot(s).

Heating Consumption

If heating is generated by natural gas or another fuel type (diesel, kerosene, light fuel oil, heavy fuel oil, propane, ethane, butane), please record how much is being consumed at your depot.

For natural gas, the amount should be in gigajoules (GJ or m³); other fuel types should be reported in litres (L). Typically, this information is available from your heating bill or from SaskEnergy.

How do I determine MMSW GHG data vs. my other collection activities?

MMSW recognizes that your collection activities may not be entirely related to MMSW materials. MMSW only requires you report on GHG data that relates to MMSW-related activities within your recycling program.

To accurately report only MMSW GHG data, we recommend you apply a consistent methodology for calculating this allocation.

For example, if your fleet is also used for garbage, organics or commercial recycling collection, please only report the fuel or kilometres driven for collection of residential waste packaging and paper.

There are two scenarios for making this allocation based on which applies to your program:

1. Activity of the collection vehicles.
2. Collection for shared routes (more than one local government collected on a truck at the same time).

Scenario 1: Activity of the collection vehicles

If the collection vehicle used for your residential recycling program also collects other non-waste packaging and paper materials (e.g. organics, garbage, commercial material, etc.), we require you to allocate the share of fuel or kilometres driven to only the activities involved with collection of waste packaging and paper for your residential recycling program.

For example:

Collection truck A used for waste packaging and paper and garbage on different days...	
Total annual fuel used for collection	1000 L
Annual fuel used for collection of residential waste packaging and paper	750 L
Annual fuel used for collection of garbage	250 L
Please report 750 L fuel usage to MMSW	

Scenario 2: Shared route collections

If applicable, check with your sub-contractor to determine if your collected waste packaging and paper is on a shared route with other collectors. If it is, the amount of GHG emissions generated by collection activities will need to be allocated based on your annual share of households on a full truck.

For example: once you determine the total fuel used or kilometres driven for only waste packaging and paper, please apply an allocation to determine your community’s share of GHG emissions on collection routes.

Total Fuel Usage = 750 L	
Community A Households	80
Community B Households	20
Total Households On Full Truck	100
Community A Share GHG	80% x 750 L = 600 L
Community B Share GHG	20% x 750 L = 150 L

If the share of households is unknown, you may alternatively allocate based on a percentage share of total weight of waste packaging and paper.

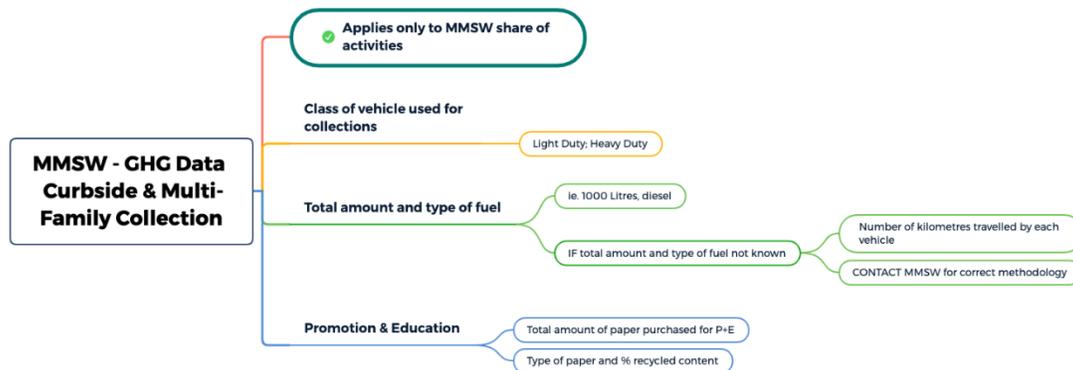
Regional waste authorities

If you are a regional waste authority, GHG data can be reported for your entire membership in aggregate. You do not need to report GHG data on a per-member basis.

Curbside single-family and multi-family collection

Summary of requested GHG emissions data

- Class of vehicles used for curbside and/or multi-family recycling collection.
- Type of fuel used for curbside and/or multi-family collection vehicles.
- Total amount of fuel used by collection vehicles by vehicle class.
- Total paper (by weight) of packaging and paper product recycling-related material purchased (e.g. recycling guides, pamphlets).
- Type of paper purchased for materials as per above, and % recycled content.



The following sections describe in more detail what we are requesting that you track, record, and report to MMSW for GHG reporting purposes.

Fleet

- What classes of vehicles are being used for collection of packaging and paper product from depot households in your program?
- Light Duty Truck - (SUVs, minivans, full size vans, pickup trucks with a gross vehicle weight rating under 3856 Kg (8500lbs) and a curb weight under 2722 Kg (6000 lbs)
- Heavy Duty - (road vehicles with a gross vehicle weight over 3856 Kg (8500 lbs) and a curb weight over 2722 Kg (6000 lbs)
- What is the total amount and type of fuel consumed by each vehicle class (e.g. Heavy Duty vehicle; 1,000 litres of diesel)?
- If the total amount and type of fuel consumed per vehicle class is not available, then we will need to know the number of kilometers travelled by each vehicle type (i.e. total mileage). Please contact MMSW to determine the appropriate methodology for reporting on kilometres travelled.

Program maintenance/staff activity

- Please include fuel usage associated with site inspections or maintenance.

How do I determine MMSW GHG data vs. my other collection activities?

MMSW recognizes that your collection activities may not be entirely related to MMSW materials. MMSW only requires you report on GHG data that relates to MMSW-related activities within your recycling program.

To accurately report only MMSW GHG data, we recommend you apply a consistent methodology for calculating this allocation.

For example, if your fleet is also used for garbage or organics collection, please consider only the fuel or kilometres driven for collection of waste packaging and paper as eligible.

There are two potential scenarios for making this allocation based on which applies to your program:

1. Activity of the collection vehicles.
2. Collection for shared routes (more than one local government collected on a truck at the same time).

Scenario 1: Activity of collection vehicles

If the collection vehicle used for your residential waste packaging and paper recycling program also collects other non-waste packaging and paper materials (ie. organics, garbage, etc.), please allocate the share of fuel or kilometres driven to only the activities involved with collection of waste packaging and paper for your residential recycling program. For example:

Collection truck A used for waste packaging and paper and garbage on different days...	
Total annual fuel used for collection	1000 L
Annual fuel used for collection of waste packaging and paper	750 L
Annual fuel used for collection of garbage	250 L
report 750 L fuel usage to MMSW	

Scenario 2: Shared Route Collections

Check with your sub-contractor to determine If your collected waste packaging and paper is on a shared route with other collectors. If it is, the amount of GHG emissions generated by collections activities will need to be allocated based on your annual share of households on a full truck. For example:

Once you determine total fuel used or total kilometres driven you must then apply an allocation to determine your community’s share of GHG emissions on collection routes.

Total Fuel Usage = 750 L	
Community A Households	80
Community B Households	20
Total Households On Full Truck	100
Community A Share GHG	80% x 750 L = 600 L
Community B Share GHG	20% x 750 L = 150 L

If share of households is unknown, you may alternatively allocate based on a percentage share of total weight of waste packaging and paper.

Regional waste authorities

If you are a regional waste authority, GHG data can be reported for your entire membership in aggregate. You do not need to report GHG data on a per-member basis.

Paper use: depot, curbside and multi-family

Paper use for recycling-related promotion and education materials

To complete this section of your GHG report, you will need to know how much paper by weight has been purchased for printed recycling brochures, pamphlets, etc.

The paper type (e.g. card stock, multi-purpose paper, copy paper, printer paper, etc.) must be known as well as the percent of recycled content (e.g. 100 boxes of 20lb box of 8.5 x 11” recycled multi-purpose paper; 100% recycled content).

If your recycling guides/brochures also include information related to your organics or garbage collection, please divide your total volume of paper purchased by the number of pages allocated to recycling of waste packaging and paper.

Below is a guide to help you determine the type of paper you are using to produce your printed recycling promotion and education materials:

Copy paper	Copy paper, inkjet/laser paper, letterhead, stationery, some higher-end notebook and lined writing paper, envelopes, fine book papers, text and cover grades (often beautiful designer papers), report covers, “post-it” notes, some brochures, invitations, some business cards, some menus
Catalog (high-end)	High-end catalogs, magazines, luxury advertising, and brochures
Newsprint	Newspaper, newsprint, directory papers (e.g., phone books), inexpensive paperback books, some lined writing papers
Catalog (mass market)	Mass-market catalogs and magazines, mass-market advertising on “slick” paper
Newspaper inserts	Newspaper inserts, grocery and drug store advertising papers, some bulk mailbox advertisements, some mass-market catalogs and magazines

Questions and support

Information about GHG reporting, reporting guides, webinar materials and FAQs can all be found on the MMSW GHG reporting webpage: mmsk.ca/ghg.

Please contact the MMSW GHG team should you need assistance with filing your reports or if you have any questions:

- greenhousegas@multimaterialsw.ca
- 1-855-886-4558 (option 4)