

# Food Waste Audit Guide







# Table of Contents

Glossary ..... 5

Introduction ..... 7

- Objectives of the Guide
- Structure of the Guide

Background ..... 9

- Ontario Food Collaborative
- Defining Food Waste Categories
- Why Do a Food Waste Audit?

Planning a Food Waste Audit ..... 13

- Determining Goals and Scope
- Procurement and Resourcing
- Developing a Methodology
- Assessing Logistical Needs
- Implementing and Managing

Interpreting the Results ..... 25

- Data Analysis
- Life Cycle Analysis
- Key Performance Indicators (KPIs)
- Household Surveys
- Limitations of Audit Data

Appendices ..... 34

- Appendix A: Sort Log and Collection Log Templates
- Appendix B: Sample Resident Letter
- Appendix C: Sample RFP
- Appendix D: Food Waste Survey Materials
- Appendix E: Contact List

# Glossary

## Avoidable Food Waste

Components of the organic waste stream that would have been edible prior to disposal. Examples: moldy bread, leftovers, whole fruits and vegetables.

## Capture Rate

Percentage of a divertible material collected, out of the total amount of that material generated.

$$\left( \frac{\text{Weight of recyclable/compostable material diverted}}{\text{Weight of recyclable/compostable material generated}} \right) \times 100\%$$

## Collection Log

Spreadsheet where audit team records set out data and observations during the collection phase of the audit.

## Diversion Rate

Percentage of waste materials diverted from landfill through processes such as recycling, an organics program, re-use, etc.

$$\left( \frac{\text{Weight of all material diverted}}{\text{Total weight of all material generated}} \right) \times 100\%$$

## Contamination Rate

The percentage of material in a recycling or organics program that is not accepted in the program.

## Generation Rate

A measure of the total generation of materials, expressed as specific unit of measure (usually weight) per single family unit or individual.

## Key Performance Indicators (KPI)

A measurable value that demonstrates the effectiveness of objectives

## Leftover Food

Food prepared or partially eaten; partially finished packages of food

## Life Cycle Analysis (LCA):

Assesses the environmental impacts associated with all stages of a product's life.



<b>Log Linear Analysis</b>	Statistical process used to determine the relationship between more than two variables.
<b>Material Categories</b>	Groups into which waste material is sorted. The broad categories can be broken down into additional categories to gain further insight into the types of food waste in the organic stream. Examples include: leftover food, untouched food, packaged/contained food, unpackaged food, and backyard compostable categories.
<b>Participation Rate</b>	Portion of population participating in a program.
<b>Possibly Avoidable Food Waste</b>	Components of the organic waste stream that may be considered edible, depending on preference and/or cooking method. Examples include: bread crusts, potato or apple peels, and less common cuts of meat.
<b>Regression</b>	Statistical process to estimate relationships among variables
<b>Request for Proposal (RFQ)</b>	A standard process to invite vendors into a bidding process for specific goods or services.
<b>Sort Log</b>	Spreadsheet where audit team records weights of each material category and any observations during the sorting phase of the audit.
<b>Time Series Analysis</b>	Statistical process that examines data at consistent intervals over a period of time to identify trends in the data.
<b>Unavoidable Food Waste</b>	Inedible components of food waste in organic waste stream. Examples include: pits, bones, shells, banana peels.
<b>Untouched Food</b>	Food that was purchased, not eaten, and thrown away. Examples include: food still in packaging, whole produce, uncooked food, and whole slices of bread.

# Introduction

The purpose of this guide is to provide municipalities with a resource to help in the planning, design, and analysis of food waste audits to measure the amount of wasted food ending up in municipally-managed waste streams.

## Objectives of the Guide

The Food Waste Audit Guide has been developed to:

- Provide an easy “how-to” resource for municipalities that are conducting food waste audits
- Provide a set of flexible options for food waste audits that municipalities can implement with varying budgets and resources
- Encourage and support more municipalities to adopt a Food Waste Reduction Program
- Increase the consistency of how to conduct food waste audits across municipalities for greater comparability of results
- Increase access to consistent data for multiple purposes including:
  1. Understanding food literacy
  2. Cross-municipal waste audit data sharing,
  3. Compare pre- and post-audit data to inform promotion and education
- Guide the use of food waste audit information for multiple purposes (e.g. healthy eating)

Understanding  
*Food* Literacy

## Structure of the Guide

This guide provides ideas on planning and getting buy-in for conducting food waste audits, practical tips and lessons learned from municipalities that have done them in the past and recommendations for common food waste categories, metrics and complementary research tools. The appendices contain sample Request for Proposals (RFP) for consultant procurement, sample data collection logs and several sets of subcategories.







# Background

## *Ontario Food Collaborative*

The Ontario Food Collaborative (Collaborative) was launched in November 2014 by representatives from across the food system to explore the potential for taking joint action to decrease wasted food at the residential level through public education and shared messaging. The Collaborative has a unique focus on the link between post-consumer food waste reduction and healthy eating attitudes and behaviours. Our membership includes municipal waste and public health staff from across the Province as well as representatives from the non-profit sector, other levels of government and academia.

The Collaborative established a Metrics Working Group and a Strategic Messaging Working Group to work on priority actions identified in its strategic plan. The Metrics Working Group was tasked with the following two objectives:

1. To build consensus around food waste categories, act as a clearinghouse for data and develop methodologies to quantify food waste, promote healthy eating and avoid food spoilage/waste, and,
2. To promote data and knowledge mobilization by:
  - Sharing Information across Municipalities on Food Waste and Healthy Eating Metrics
  - Creating a Platform for Data Hosting
  - Engaging in Municipal Pilot Projects for Data Collection and Sharing
  - Identifying and Capitalizing on Research Partnerships

This guide addressed the first objective and lays the foundation for moving forward with the second.



## *Defining Food Waste Categories*

Research has determined that the lack of common categories and collection methods has made it challenging to compare food waste audit results in the past. This guide establishes high level categories for food waste audits to allow for comparison and aggregation of results between municipalities. The selection of food waste categories was informed by the experiences of working group members (Peel Region, York Region, Simcoe County, and City of Guelph/ University of Guelph) and a review of existing organics and food waste frameworks used in other countries (e.g. WRAP UK). The comparison revealed that the main difference between approaches occurred in the interpretation of what constitutes edible, as this can vary based on factors such as cultural practices, taste preferences and cooking methods. Some audit approaches took a very broad view





of edible or avoidable waste, including items such as broccoli stalks, pizza crusts, potato peels; others focused on a narrow definition that did not include these sometimes edible items. A third option was to create a third category of possibly avoidable food waste that encompasses food types that may be eaten in some circumstances and not others.

Another difference was in degree of sorting carried out. Some broke the avoidable food category down further into subcategories based on state of the food (i.e. untouched food or leftovers) or type of food (i.e. produce, dairy, meat, grains, and mixed foods). These subcategories provided further insight into possible causes of food wastage and potential solutions, however, for consideration they also add more time and expense to the audit.

For the purposes of this Guide we are

recommending three high level categories for food waste:

- 1) Avoidable,
- 2) Unavoidable, and
- 3) Possibly avoidable.

Using these categories and the definitions provided in the glossary will allow for high level comparability between audit results from different communities. Users are encouraged to further subdivide categories depending on their resources and research goals.

Sample subcategory lists are provided in Appendix A.

## *Why Do a Food Waste Audit?*

A food waste audit is an essential first step for municipalities looking to address food waste generated from residential sources. Typically, waste audits are conducted to track how much divertible material is being captured through curbside programs, what problem materials are ending up in the wrong streams and the overall diversion and waste generation rates for typical households. Waste audits with a specific emphasis on food waste include additional categories of food waste to better understand the types of food being wasted and potentially identify some of the behaviour behind the wastage. For example, a food waste audit can determine whether the majority of food waste in the waste stream is avoidable, unavoidable or possibly avoidable.

Results from the food waste audit can be used to:

- Identify food waste and packaging trends in each waste stream
- Evaluate waste policies, programs, and strategies
- Strategically develop communication outreach materials

Knowing this information can help to inform promotion and education campaigns, planning for the addition of new materials in diversion

programs, and curbside enforcement efforts. For example, if the food waste audit finds a large amount of untouched food waste, the municipality may consider developing an educational campaign targeting consumer grocery purchasing behaviours as a way to drive reduction of food waste in all waste streams. Successful food waste reduction can lead to reduced costs for managing organic waste in curbside programs. Food waste audits conducted on a regular basis enable municipalities to track changes in disposed food waste over time.

Results can be communicated in a report, presented to municipal Council, or shared with other municipalities or the public.

A secondary goal of a waste audit should be the ability to determine a “food waste profile” for households. Doing so provides municipalities with the ability to potentially quantify the value of food waste being discarded by households or estimate the potential greenhouse gas reductions from reducing food waste. It can also help inform reduction target setting and support the business case for the value of food waste reduction, both to households and to the municipal waste system.







# Planning a Food Waste Audit

The planning process of a food waste audit can be broken down into five steps:

- 1) Determining Goals and Scope,
- 2) Procurement and Resourcing,
- 3) Developing a Methodology,
- 4) Assessing Logistical Needs
- 5) Implementing and Managing

## 1. *Determining Goals and Scope*

Determining the objective(s) of the audit and how the results will be used are the most important steps of the waste audit planning process. Identifying the composition and quantities of food waste within the waste stream is a fundamental pre-requisite to developing programs to mitigate food waste.

Conducting food waste audits over time is also a useful way to identify trends and patterns in consumption and disposal, and evaluate the efficacy of initiatives designed to reduce food waste in the first place.

Food waste audits are also used to develop common metrics that readily allow for the communication of results, some of which include:

- Composition by material type
- Composition by waste stream
- Generation rate
- Diversion rate
- Contamination rate

- Set Out rate
- Capture rate
- Participation rate

Results from a food waste audit can be used as a baseline of waste habits before a project is launched and may provide insight into household waste practices. Food waste key performance indicators should be considered while planning waste audit categories and metrics.

Once goals have been determined, the scope of the audit flows from there. Scope should consider sorting categories, streams to be audited, sample size and audit frequency.







# Planning a *Food Waste* Audit

## 2. *Procurement and Resourcing*

Municipal purchasing policies will influence and determine the process to procure a professional consultant to carry out the waste audits. The goals and scope of the waste audit will also help influence which procurement method is chosen. Collaborating with other municipalities to determine best practices and lessons learned of what has worked and not worked in the past may be useful as well.

Where appropriate, leveraging municipal staff and resources to carry out or assist in the audits can be used to help offset costs. The auditing team should demonstrate a clear and comprehensive understanding of municipal waste programs and the materials being audited.

Municipalities may also seek out additional funding or grants in order to subsidize the costs of conducting an audit. Potential funding opportunities include the Federation of Canadian Municipalities' Green Municipal Fund, which offers grants and loans for feasibility studies and pilot projects, and the Continuous Improvement Fund (primarily related to Blue Box projects), which offers funding for waste composition studies.

When evaluating a consultant, the experience of the project manager and waste audit team are of importance. Ensure that the same sorting staff, project manager, and municipal staff are used throughout the entirety of the audit. Best practices have determined that consultants that have experienced staff are more likely to finish on time and produce sound results. An experienced waste audit team will have fewer issues with some of the unpleasantness that may come with collecting and sorting waste, particularly organics, which can be messy

work. A consultant that uses temporary staff may experience staff turnover day-to-day and may have to spend considerable time training and getting staff up to speed every day. This may be particularly challenging in a food waste audit where categories are less clear cut than traditional audits. Ideally, an opportunity would be provided to the consultant to demonstrate the value that their firm can bring to the table. This information can be useful when evaluating proposals and can provide context to variations in RFP bids. Preferably, a minimum technical score would have to be met for the proponent to be successful.

The contractor should provide proof that they hold the appropriate insurance: Commercial General Liability Insurance and Automobile Liability Insurance, and are compliant with Workplace Safety and Insurance Board (WSIB). The contractor should hold a Province of Ontario Environmental Compliance Approval (ECA) for waste management activities; this is necessary for the collection and transport of waste materials. The consultant should provide municipal references for projects with a similar scope to your planned project.

In addition, all contractors and submissions should comply with any law, including all legislation and regulations, which may apply to the services provided including: Accessibility for Ontarians with Disabilities Act (AODA), Occupational Health and Safety Act (Ontario), Ontario Human Rights Code, Pay Equity Act (Ontario), and the Environmental Protection Act (Ontario).





### 3. *Developing a Methodology*

To conduct a waste audit efficiently, a methodology should be developed for the waste collection process and the waste sorting process. The methodology should be developed with your goals in mind so that the study yields the metrics you are looking for. Work backwards from what information is hoped to be learned at the end of the study in order to identify the steps required to obtain that result. Through this process, the waste generator sectors, sub-populations and areas, waste streams, level of detail, and precision of results required should all be defined.

#### **Categories and Streams**

Adding new categories to the organics portion of the standard Stewardship Ontario sorting categories allows for the capture of metrics that are more specific to food waste. For example, food waste can be broken down into material that is unavoidable (cores, bones, pits), possibly avoidable (peels, crusts) and avoidable (leftovers and untouched food) to provide a clearer picture of how much food waste could be reduced through education and behaviour change outreach. This can be further broken down into specific food groups (e.g. baked goods, meat, fruits and vegetables, etc.) to get a more detailed profile of the food that is being wasted.

The sorting categories for food waste will be more subjective than traditional waste composition audit categories that focus on material type (e.g.

fine paper, newspaper, PET packaging, etc.); clear guidelines and examples help to ensure consistency amongst audit staff and between audits. It is prudent to provide the waste audit team with detailed category examples as well as a list of materials and practices of the current program. This can be supplemented with a list of photos illustrating the various materials in each category. As food waste audits are relatively new, it is also helpful to have someone familiar with food waste categories to attend audits to provide clarification when required.

The glossary in this guide provides high level definitions for the three main categories (avoidable food waste, unavoidable food waste, and possibly avoidable food waste) that can be used to expand the general category of “organics” found in the standard Stewardship Ontario audit protocol used by many municipalities. These subcategories have been developed to allow high level comparability between municipalities doing food waste audits but still allow for the further breakdown of food waste for additional granularity to meet specific research goals. Within each of these categories, subcategories can be created to more accurately show the composition of the waste streams. The number of additional categories depends on budget and specific research questions. Several sets of subcategories have been included in Appendix A to help guide decision-making.

## Planning a *Food Waste* Audit

It is suggested that municipalities be flexible with audit categories. For example, if warranted by the results, add an additional category during the audit, especially during the initial audit as the team gains insight into the composition of the food waste portion of the waste stream. Backyard composters can be used for some food waste, including: coffee grounds and filters, egg shells, fruits and vegetables, nuts and shells, and tea bags. For municipalities with a backyard composting program, categories can be developed to determine how much of the material being placed in the waste stream could be composted at home.

### Sample Selection

Audit samples are generally too small to provide statistically significant representation of the municipality, but selecting areas with demographics that are representative of the municipality will provide a good picture of what is happening at the household level. Audit data can be validated through comparison with annual tonnages by extrapolating the audit results using the following formula:

(Audited kilograms per household) × (Number of single family households collected from annually)

The resulting figure should be comparable with the total tonnage of the stream collected annually in the municipality.

It is recommended that a sample size of 100 households, 10 consecutive households on 10 different streets, is the standard sample size for single family residential waste audits carried out in Ontario. It is reasonable to expect a waste audit team to be able to collect and sort waste materials from 100 households over a five day period, working regular hours.

At the most, 30 households should be scheduled for collection, sorting, weighing, and disposing in one day. Municipalities should be aware that organic material cannot be easily stored overnight without further degradation. Collection and sorting should be completed in the same day, especially in warmer weather.

A sample size of 100 households allows for a variety of household demographics to be covered in the audit. Some demographics to consider when choosing the sample areas for your audit include:

- Housing types (detached, semi-detached, duplex, etc.)
- Lot sizes
- Property values
- Income
- Age of homes
- Urban and rural homes
- Ethnicity
- Family size

Some of the households chosen may cover a number of the demographics listed. In addition to considering household demographics, it is important to ensure all of the households in the study area receive the same level of service. The collection times of the sample areas should be taken into account. Choosing streets with early collection times may allow for samples to be collected in an efficient manner and may prevent freezing or degradation of food waste samples. Once a preliminary list of households has been chosen, it is recommended to have the consultant's project manager review the list and provide feedback on the selected households. In addition, municipal staff should inform collection staff of the households involved in the study (e.g. addresses, length of study, etc.).





Ideally, a waste audit would be carried out over a full year in order to account for seasonal variations in waste generation with an audit scheduled during each of the four seasons. Looking at patterns in monthly tonnages may also help to identify timing for audits. Seasonal variations may be seen in weight, material composition, and program participation. Seasonality can also impact the logistics of audits as hot summer days can degrade organic material more quickly, making it harder to identify composition. Extreme cold can result in frozen material that is difficult to sort. If your collection schedule allows for it, each waste audit should be scheduled to avoid any holidays during the period immediately before or after the study period. Holidays could lead to atypical results as changes in the collection schedule, special events and travel can impact a household's waste generation. If it is not possible to carry out four audits over the course of a year, the potential seasonal changes should be noted in the audit results.

In order to gather accurate information about food waste habits of the residents in the sample areas, each waste audit should be conducted over a period of time that will allow for the collection of materials from all waste streams.

Depending on time and resources, auditors may only want to consider conducting food waste audits of the residual and organics streams. The percentage of food waste in the recycling stream is likely to be low (barring unusual instances of contamination), and as such, should only be conducted if there are sufficient resources to conduct a three-stream audit.

Collection and sorting for a curbside food waste audit will be similar to standard three-stream waste audits. If your municipality is already conducting these types of audits regularly, adding food waste categories to your existing process is likely the most cost-effective approach.

<sup>1</sup> Curbside Waste Audits – Considerations for Small Communities, Continuous Improvement Fund (2012)

<sup>2</sup> Residential Curbside Waste Audit Guide, Waste Diversion Ontario (2002)





# Planning a *Food Waste* Audit

## 4. *Assessing Logistical Needs*

**A waste audit would be carried out over a *full year* in order to account for *seasonal variations* in waste generation with an audit scheduled during each of the *four seasons*.**

### Waste Collection

Necessary Documents:

1. A Collection Log should be developed and provided to the waste audit team. The team will use the log to accurately record set out data and observations. The log should be provided in a spreadsheet format. This way the log can either be printed and manually filled out on the street or digitally completed on the street using an electronic device.
2. Street maps (including designated collection routes) should be developed and provided to the waste audit team and project manager illustrating where streets and the households to be sampled are located. Auditors should make note of any irregular collection points and if possible note the collection times of each area. If possible, ask municipal staff or the auditing team to perform a site assessment in advance of conducting the audit to visually confirm the suitability of households and areas selected to be sampled and identify any potential factors that may impact audit results or impede data collection (e.g. street construction).
3. The project manager should be given the maps of the sample areas before the start of the audit to pre-plan the audit route. When planning the route, ensure that it is feasible for the audit team to collect samples in a timely, neat, and efficient manner.

## Communication

1. It is recommended that the waste audit team be able to directly contact the waste collection route supervisor or dispatcher to address any issues that may arise. A designated audit contact should be available to take calls from the audit team during the collection timeframe.
2. The audit team should notify the waste collection route supervisor or dispatcher when they are finished collecting for the day and if they did not collect from any of the households in the sample area. At the same time they can confirm or remind the waste collection route supervisor or dispatcher which households they will be collecting from the next day.
3. Residents in the sample areas should not be informed of the waste audit prior to the start of the audit in order to avoid altering behaviour. However, a general press release about the audits may reduce concerns from residents and raise awareness of waste diversion programs.
4. To address resident questions during the audit, a resident letter should be developed explaining the project and emphasizing that all waste collected will be combined, sorted, and weighed on an aggregate level, not from individual households. In specific instances in which individual household data is being recorded, an alternative letter should be prepared. This letter should be disseminated to households within the designated audit area. Letters should be printed on municipal letterhead and provide a municipal contact that can address any further concerns.
5. A standard FAQ document should be developed for Council and municipal customer service staff to help answer any questions that arise from residents regarding the audit.

## On the Street

1. In each sample area, ten consecutive households should be selected for collection. Selecting households in consecutive order on the same side of the street will make collection easier to manage. Additionally, audit teams will have more leeway before regular collection occurs by choosing neighbourhoods where waste is typically collected in the morning and avoiding households at the beginning of a collection route. Minimize any changes to collection, such as routes and times. When this is not possible ensure that all parties are informed of the changes.
2. The audit team may need to make several passes through the neighbourhood to ensure as many samples as possible are collected. It is recommended that a contingency plan should be developed in the event that samples from selected households are collected by municipal or contracted collection staff before the audit team arrives. This could involve identifying a back-up block of households for sampling, ensuring additional week(s) are included in the contract, or doing a trial run through the selected streets beforehand to ensure additional data is available to compensate for the missed week. It is recommended that a buffer for additional costs be built into the budget.
3. The collection route supervisor or dispatcher is responsible for informing waste collection staff about any changes to their route.
4. The method of collection for all waste streams should be considered before a waste audit. If waste is collected through an automated system, different considerations will have to be taken than if collection is done manually. If an automated system is used, the contractor should collect and haul the material directly to the sorting location.



## Planning a *Food Waste* Audit

5. During collection, the audit team should ensure each sample area's waste is kept separate. This can be achieved by using stickers, bag tags, or different containers to hold the different waste streams from each street. Special provisions should be made to protect household privacy – stickers, bag tags, etc. should not contain household addresses, phone numbers, etc.
6. If possible, the audit team could also track the amount or weight of set out material for each household collected. Auditors should also make note of the number and fullness of each container. As food waste generation can be quite variable, this information can help identify outliers in the sample.

### Health and Safety:

1. Personal Protective Equipment (PPE) should be worn at all times on the street by the waste audit team. This includes a high visibility vest, heavy duty puncture resistant gloves, safety footwear, and eye protection. Coveralls are also recommended.

### Collection Vehicle:

1. The waste audit team should have a 16 ft. cube van or the equivalent sized trailer to ensure that collection can be carried out efficiently each day. A municipal vehicle is ideal as it may ease residents' concerns, but a contractor vehicle with municipal logos temporarily affixed to it (e.g. by magnets) is also suitable.

Waste should not be compacted because compacted material may be more difficult to sort and may affect the integrity of the audit.

### Waste Sorting

#### Necessary Documents:

1. A waste sort log should be developed to allow the audit team to record the weights of each material category and note any observations that occurred during the sort. See Appendix A for sample templates.
2. The log should be provided in a spreadsheet format. This way the log can either be printed and manually filled out at the sort-site or digitally completed at the sort-site using an electronic device.
3. Make notes about materials, where necessary. For example, if there is a large quantity of material categorized as other, it should be noted what this material is.
4. If unidentified food is found during sorting, take photos if possible and provide an explanation as to why the material is considered unidentifiable and how it will be measured and categorized.

#### Documentation:

1. Photos should be taken during the sort from each sample area. The photos provide context to the sorted materials after the fact and can be used in presentations or as part of educational material support.
2. As much as possible, record all of the decisions made during the audit.
3. Provide a final report and other relevant documents, such as any previous food waste audits.



#### Health and Safety:

1. PPE should be worn at all times when sorting by the waste audit team. This includes coveralls, eye protection, a respirator, puncture resistant gloves, and safety footwear. Depending on the facility, a vest, hard hat, and/or hearing protection may also be required.
2. A sharps container should be made available for hypodermic needles or any other sharp materials found during the audit. If a bag containing a sharp is found it should not be sorted. Rather, the materials in the bag should be weighed as a whole and visually sorted; the materials in the bag would then be assigned a percentage of the total weight.

#### Sort Facility:

1. An enclosed facility that is suitable for all weather conditions with heating and good ventilation should be provided to the waste audit team for sorting. The facility should also have access to water, electrical outlets, and washrooms. Ideally the sorting facility would also have a concrete floor for ease of set up and clean up.
2. An adequate number of containers should be available to sort and weigh each material category. As well, containers for disposal of all waste streams should be set up for the waste after the audit is complete.

# Planning a *Food Waste* Audit

## 5. *Implementing and Managing*

Once project goals, material categories and resource/staffing requirements have been determined, municipalities and auditors should develop a work plan to carry out audits. Regular communication and collaboration with the auditing team is paramount to the success of a food waste audit.

Communicating with the audit team:

- An initial meeting should be held with the audit team to discuss terms of the RFP agreements or in-house audit plan. Details to confirm include: dates, timelines, and logistical considerations such as operations, expectations when on-site (if being conducted at a municipal site), health and safety expectations, material handling, and requirements for disposal at end of each day. The categories for each waste stream should also be reviewed and confirmed.
- Any necessary documents, such as maps and logs, should be provided to the audit team.
- It should be determined if and when on-site visits will occur. At least one site visit to the sorting location should be done with the audit team lead to ensure the facility meets the requirements of the audit team (e.g. space for sort tables, shelter, facilities, etc.).
- Regular audit team meetings and check-ins should be scheduled.

Supervision and project oversight:

- Municipal staff, site supervisor, and primary points of contact should be clearly identified, with roles and responsibilities of all team members clearly outlined.
- The contact information for all those involved should be confirmed and shared with necessary parties.

## Troubleshooting a Food Waste Audit

Common questions and issues:

- How to collect loose food waste from bins/carts? Work with auditors to develop a prescriptive approach for how to collect and quantify loose waste.
- How to collect and measure food in newspaper/paper towels/shredded paper? Separate food waste from paper as much as possible. Paper products in the organics bin can be a separate category in the audit.
- What to do with liquids still in bottles (e.g. beverage containers)? Have a container (i.e. bucket) for draining liquids found in bottles that can be weighed separately from the packaging.



Risk mitigation and dealing with contingencies:

- Regular communication and daily check-ins between municipal staff, the project manager, and the audit team can help to minimize issues, such as missed collections. Audit staff should notify municipal staff when they have completed their auditing collection for the day.
- As an alternative, the calculations are adjusted to reflect no collection from these households, rather than introduce a new block of households, which may skew results. If it is a full sample, i.e. two week period, includes similar profile properties, and it is over a period with no anomalies (e.g. no statutory holidays as per earlier guidance statements provided in the document) the additional data is important as the sample is so small. It would depend on how many properties were missed.
- Build detailed material categories into the RFP.



# Interpreting the Results

## Data Analysis

Data analysis options include:

### 1. Relative Composition/Quantities

Food waste audits (and waste audits in general) provide insights into the types and quantities of waste being generated by households in a municipality. Quantities of waste are most commonly expressed using weight-based metrics, i.e. kg/hhld, kg/set out, etc., but consideration should also be given to the types of food waste being generated by households, i.e. apple, banana, etc. While this, at times, may be difficult for auditors to assess, a qualitative evaluation with respect to the most commonly generated types of food waste can provide meaningful insights into household behaviour.

It is recommended that municipalities provide auditors with a list of food type categories (dairy, vegetable, fruit, etc.) and ask the auditing team to estimate the relative contribution of each category (expressed as a percentage) to the total food waste sample (e.g. 10 kg of food waste was measured, of which 40 per cent was vegetables, 30 per cent dairy and 30 per cent dry goods/grains).

### 2. Socio-Demographic/Infrastructural Relationships

Understanding the relationships between housing types, demographics and other infrastructure characteristics and the types and quantities of food waste generated should be a priority for food waste audits.

Intuitively, it is understood that variables such as household income levels affect the types of waste that are generated. However, little guidance has been given to municipalities on how to undertake this analysis.

When selecting audit areas, ask staff to research vital demographic variables for the households to be included in the sample (Environics and the Statistics Canada 2016 census can be used to obtain this data). Key variables for consideration include:

- Number of people per household
- Household income level
- Average household age
- Number of children per household
- Multi-generational households





**variables such as household income levels affect the types of waste that are generated**

In addition to these demographic variables, infrastructural characteristics of households in your proposed sample should also be considered, for example:

- Housing type (detached home, townhouse, etc.)
- Does your municipality have an organics diversion program? If so, are there container limits? How frequently is organics collected?
- Does the household have a garage? (storage of organics bin)
- Does the household have a backyard? (potential presence of a backyard composter)

Information related to the presence of a garage and backyard may need to be provided by the auditor, or by municipal staff conducting a pre-site assessment. Ask your auditing team/site staff to record any additional information that they think could impact the results of an audit (e.g. house has a backyard composter, etc.).

Once an audit has been completed, further statistical analysis can be conducted by trained municipal staff or a partnered organization (e.g. a university). Statistical tests can be used to determine what relationships (or interrelationships) exist between different demographic and infrastructural variables.

Commonly-used tests include regression and log-linear analysis. The aim of these tests is to isolate the impact a specific variable (e.g. income level) has on the dependent variable (in this case, the types of food waste being generated by households). When conducting these tests, it is important that external variables (e.g. food price inflation) are controlled. Otherwise, there is a risk incorrect conclusions may be drawn regarding the relationship between variables.



# Interpreting the Results

## 3. Time Series/Trend Analysis

One of the benefits of conducting a waste audit is determining how waste composition and quantities of waste generated change over time. However, for this to be possible, a number of requirements must be met:

- Sufficient samples being taken over a fixed period of time
- Consistent auditing procedures and sample areas for all audits, and
- Controlling for external system changes (e.g. sudden economic downturn) that can explain sudden shifts in household behaviour

Given that food audits, particularly those that distinguish between avoidable, possibly avoidable, and unavoidable food waste, are relatively new, time series analysis may not be feasible at this point. However, given that future audits are likely to be conducted, ensuring methodically sound and replicable procedures are in place will allow time series analysis to be carried out in the future. Additionally, this allows for results to potentially be compared across municipalities.

Perhaps the most common mistake that municipalities make when conducting audits is changing the households sampled from audit to audit.

While it may seem like a good practice in an attempt to “maximize” the number of houses sampled, it takes away the option of time series analysis. Conducting audits in this way changes ‘panel data’ into ‘discrete data’, making it impossible to credibly identify trends over time.

As such, better/best practices when conducting audits (with time series in mind), a municipality should:

- Sample the same houses for all audits
- Use the same audit procedures, material definitions and data tracking sheets for each audit. Using the same auditing team for each audit is preferable, but may not be possible given resource/availability constraints. As such, provide auditors with a set of clear and consistent instructions, providing samples of “what constitutes edible food waste”, etc. to ensure consistency.
- Record/document any major changes to your waste program, provincial policy/legislation, or macro-economic events that may influence household behaviour. As an example, if your program switches from bins to carts, model how audit results have changed pre/post program change. If there are significant variations between the two audit samples, you may not be able to conduct time series analysis.

In addition to trend analysis, an “Analysis of Variation” test across samples taken during the same audit period (but in different areas), provides useful insights into how homogeneous and heterogeneous household behaviour is. As an example, taking samples from three distinctly different neighbourhoods, e.g. single-family low income, single-family high income, and rural low income, but there is little statistical variation in the samples, then it may be reasonable to conclude that household disposal patterns are independent of socio-demographic variables. If this is the case, then stratifying the sample to ensure representative sampling becomes less important.









*Life Cycle Analysis (LCA)*

# Interpreting the Results

Estimating the LCA impacts of your waste audit results provides a more complete picture of the environmental implications of food waste.

In order to conduct this type of analysis, refer to the U.S. EPA Waste Reduction Model (WARM) for emissions coefficients that correspond to organic waste. See Table 1 for a sample of emissions coefficients pertaining to food and mixed organics waste (example only):

The table below illustrates potential emissions credits associated with diverting food waste from a landfill. To calculate the emissions impact of food waste (both with respect to material diverted and material disposed), multiply total kilograms diverted (or disposed) by the corresponding emissions coefficient.

Emissions savings are attributed to avoiding organic material being sent to landfill, and the methagenic impacts associated with decomposition (in the event that landfills are not equipped with energy-from-waste facilities).

For other measures such as water impacts, consider referring to LCA databases such as ECO Invent, Open LCA, and GaBi. The methodology for calculating other LCA impacts remains the same as above (Environmental Impact is expressed as CO<sub>2</sub>/Tonne, Litres/Tonne, etc.):

$$\text{Environmental Impact} \times \text{Weight of Organics Collected}$$

Table 1 - Food Waste and Mixed Organic Waste Emissions Coefficients

Material	Process Energy	Avoided Utility Emissions	Avoided Fertilizer Application	Soil Carbon Storage	Process Non-Energy	Transportation Energy	Net Emissions (Post-Consumer)
Food Waste	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Food Waste (meat only)	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Food Waste (non-meat)	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Beef	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Poultry	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Grains	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Bread	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Fruits and Vegetables	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Dairy Products	0.01	-0.12	-0.02	-0.03	0.10	0.00	-0.06
Mixed Organics	NA	NA	NA	NA	NA	NA	NA

## Key Performance Indicators (KPIs)

The inclusion of a number of KPIs as part of the food waste audit can provide a comprehensive picture of the impacts of food waste. In addition to weight-based metrics, the following KPI measures should be considered:

Percentage of avoidable and unavoidable food waste:

- This can be further broken down to examine what specific materials comprise each of these categories. Additionally, knowing the specific material composition of the waste audit means more in-depth metrics can be calculated, such as the LCA impacts.

Costs of food waste:

- Knowing the material composition of avoidable food waste can be used to estimate the cost of this waste to homeowners. Furthermore, knowing the amount of avoidable waste can be used to estimate municipal costs for processing this waste.





# Interpreting the Results

Municipalities may want to consider conducting household surveys to gauge attitudes towards food waste, food consumption patterns, etc.

In choosing which households to survey, it is useful to determine major factors that are thought to impact the food waste stream, such as those outlined in the previous “Socio-Demographic/ Infrastructural Relationships” section. The households selected to survey should be representative of these factors. Surveys can be carried out in-person or online through the use of questionnaires, in-depth interviews, or kitchen diaries. The way a municipality chooses to carry out their survey will depend on the level of detail they hope to achieve from the survey, as well as budget and resource constraints.

While what questions to ask will be a function of what municipalities are interested in learning, questions surrounding environmental behaviour and intent can be grouped into three categories:

- Attitudes: Measures how a person subjectively feels about a given activity (e.g. “I think recycling is a good thing”)
- Normative Influence: Measures whether a person thinks an activity is rooted in a familial/communal/social expectation (e.g. “my neighbours will judge me if I don’t put out my recycling bin”)
- Perceived behavioural control: How easy (or difficult) is it for a person to perform an activity, or contribute to an overall outcome (e.g. “I don’t recycle because the recycling carts are too big to store in my garage. Plus, one person doesn’t make a difference anyways”)

Responses should be recorded using 5 point Likert scales (where 5 = strongly agree and 1 = strongly disagree). Measuring responses using ordinal scales is important in order to quantify and analyze results. Generally speaking, asking open-ended questions should be discouraged, unless municipal staff have research experience and are familiar with “coding” responses. Coding refers to grouping similar statements in a specific category/variable, e.g. during a focus group, municipal staff recorded different participants as having said “Recycling is good” “Recycling is great”, “Recycling is awesome”, then those three statements would be coded under the same parent category.

Of note, municipalities should be careful not to draw definitive conclusions from survey/interview work with households. Self-reported measures of behaviour, wherein a participant tells you what they would do, as opposed to actually observing them doing it, often leads to inconsistent results. Particularly for an activity such as food waste reduction, which is seen as a pro-social activity, households may be inclined to overstate their agreement/participation. Differences in self-reported and observed behaviour are difficult to overcome, but it should not discourage municipalities from undertaking survey work.



## *Limitations of Audit Data*

Given that it is often not feasible to conduct enough audits to meet the significant threshold, it is advised that municipalities acknowledge the limitations of audit data, and understand what it can and cannot be used for.

In general, it is advised that municipalities avoid making declarative statements based on audit data, for example “households with incomes less than \$45,000 per person generate the most food waste”. Furthermore, audit results should not be used to draw definitive conclusions about topics such as healthy eating or household cooking and eating habits. At best, audit data provides us with data to draw inferences, acknowledging potential relationships between food waste and other factors, but the data is generally not good enough to prove a causal relationship.

It is important to note that given the relative infancy of food waste audits, there is little prescriptive guidance regarding how to classify food waste, what constitutes avoidable and unavoidable, and understanding the factors that contribute to food waste.

Acknowledging that there are limitations in the data set, helps policy planners understand that the results should be interpreted with caution, but are still credible enough to make meaningful inferences.

**The way a *municipality* chooses to carry out their survey will depend on the level of *detail* they hope to achieve from the *survey*, as well as *budget and resource constraints*.**





# Appendices

- A: Sort Log and Collection Log templates
- B: Sample Resident Letter
- C: Sample RFP
- D: Food Waste Survey Materials
- E: Contact List



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# **Appendix A**

**Sort Log and Collection Log templates**



**City of Guelph Waste Audit Program**  
Waste Sort Log for Curbside Residential and Multi-Residential

Waste Stream:

Blue Cart

Green Cart

Grey Cart

Study Type: \_\_\_\_\_

Date Collected: \_\_\_\_\_

Sort Team: \_\_\_\_\_

Material Category	Net Weight (kg)	*Notes
<b>PAPER &amp; PAPERBOARD</b>		
ONP - Old Newsprint / Fibre (including Fine Paper, Newspaper and Flyers, Magazines & Catalogues, Books, Telephone directories, Tissue Paper		
OCC Old Corrugated Cardboard (including Boxboard)		
Shredded Paper (bagged)		
<b>CONTAINERS – Food and Beverage</b>		
Aluminum		
Glass		
Steel		
Plastic #1PET		
Plastic #2 HDPE		
Mixed Plastic Containers #3 & #6		
Plastic Tubs & Lids		
Polycoat (gable top & aseptic tetra paks)		
<b>ORGANICS</b>		
Food Waste		
Yard Waste (including Pet Waste)		
Compostable Papers		
Compostable Certified Bags		
<b>MUNICIPAL HAZARDOUS AND SPECIAL WASTE (MHSW)</b>		
Dry Cell Batteries, Wet Cell Batteries, Fluorescent light bulbs and tubes, Paint & Stain, Solvents, Household Cleaner or Detergent, Wax or Polish, Biohazardous/Medical Waste including Needles and Syringes (Hypodermic), Pharmaceutical, Pressurized Container, Aerosol container (including empty containers), Propane container, Fertilizer, Pesticide, Portable Fire Extinguisher, Mercury switch or thermostat, Oil Filter, Motor Oil, Gasoline, Antifreeze, Other MHSW		
<b>CONSTRUCTION &amp; DEMOLITION</b>		

Clean Wood, Drywall, Shingles, Rubble/ Concrete/ Bricks/ Ceramics, Scrap metal		
<b>OTHER PROGRAMS</b>		
Bicycle		
Plastic Film		
Expanded Polystyrene & Foam		
Bulky Rigid Plastics		
Appliances – mostly metal		
Appliances – mostly non- metal		
Mattresses		
Carpet		
Vinyl Siding		
Window Glass		
Textiles		
Clean Fill (including soil, stones, sod, & top soil)		
Re-usable Furniture		
Re-usable Household Goods		
Non-reusable Furniture (dressers, couches, chairs)		
Electronics Phase 1 & 2		
Tires		
<b>GARBAGE</b>		
Diapers, Sanitary / Hygiene Products, Other PolyCoats / Composites (e.g. coffee cups), Other Plastic - Packaging Film, Other Plastics – Rigid (e.g. spools, toys), Other Glass (drinking glasses, dinnerware, other ceramics) , Other Metal (coat hangers, nails & screws), Other Metal Composites (mostly metal with other materials), Other Plastic Composites (mostly plastics with other materials), Other Paper Composites (mostly paper with other materials), Other Electronics, Other Waste including Fines (<2.5 cm)		



# Region of Peel Waste Audit Program 2017/2018

## Single-Family Waste Audits -- Description of Audit and Notes

### Contact Information

**Municipality:** \_\_\_\_\_  
**Municipal Contact Name:** \_\_\_\_\_  
**Municipal Contact Phone:** \_\_\_\_\_  
**Municipal Contact E-mail:** \_\_\_\_\_

**Study Conducted By (Contractor):** \_\_\_\_\_  
**Audit Supervisor Name:** \_\_\_\_\_  
**Audit Supervisor Phone:** \_\_\_\_\_  
**Audit Supervisor E-mail:** \_\_\_\_\_

**Regular Waste Collector(s)** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Sorting Site Address:** \_\_\_\_\_

### Sample Size and Timing

**No. of Households Sampled:** \_\_\_\_\_  
**Study Start Date:** \_\_\_\_\_  
**Study End Date:** \_\_\_\_\_  
**Sampling Dates:** \_\_\_\_\_

### Description of Housing and Sample Areas

(location of sample area, street names, description of sample area/neighbourhood, type of homes, average age of homes, demographics, other pertinent information that may be useful for understanding waste generation/recovery behaviour in the sample area)

**Sample Area 1:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Sample Area 2:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Sample Area 3:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Sample Area 4:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Sample Area 5:** \_\_\_\_\_

# Region of Peel Waste Audit Program 2017/2018

## Single-Family Waste Audits -- Description of Audit and Notes

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Sample Area 6:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Sample Area 7:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Sample Area 8:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Sample Area 9:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Sample Area 10:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

### Information on Waste Streams and Collection Frequency

**Recyclables - Fibres:** \_\_\_\_\_

**Recyclables - Containers:** \_\_\_\_\_

**Mixed Recyclables:** \_\_\_\_\_

**Green Bin Organics:** \_\_\_\_\_

**Yard Waste:** \_\_\_\_\_

**Grass Ban or Yard Waste Ban:** \_\_\_\_\_

**Garbage:** \_\_\_\_\_

**Bag Limits for Garbage:** \_\_\_\_\_

**Bag Tags for Garbage (\$):** \_\_\_\_\_

**Bulky Waste Collection:** \_\_\_\_\_

**White Goods:** \_\_\_\_\_

**Electronic Waste:** \_\_\_\_\_

### Notes / Observations

(pertinent information that may be useful for understanding the results, problems/issues with the audit, general observations about the waste, etc)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_





**Region of Peel Waste Audit Program 2017/2018 – SF Material Categories** **Page 1 of 4**

Material Category	Description / Examples
<b>PAPER</b>	
<b>Newspaper – Dailys and Weeklys</b>	Daily and weekly newspapers published by the Canadian Newspaper Association (CNA) and the Ontario Community Newspapers Association (OCNA); Globe and Mail, Toronto Star, Hamilton Spectator, community newspapers. Consult Stewardship Ontario's list of OCNA/CNA publications. No inserts, flyers and magazines from newspapers.
<b>Newspaper - Other</b>	Non OCNA/CNA publications (e.g. TV guides, Auto Trader, Real Estate News) plus inserts and flyers from OCNA/CNA newspapers. Consult Stewardship Ontario's list of OCNA/CNA publications. Includes glossy flyers and advertising distributed with newspapers.
<b>Telephone Books / Directories</b>	spiral wound cans with paper walls and plastic or metal tops or bottoms; frozen juice, Pringles, raisins, etc.
<b>Magazines &amp; Catalogues</b>	Glossy magazines, catalogues, calendars, annual reports (must be bound, i.e. stapled or glued).
<b>Mixed Fine Paper</b>	Fine household papers, writing paper, copy paper, bills and statements, ad mail, home office paper, etc. Includes glossy flyers and advertising that are not distributed with newspapers.
<b>Soft Covered Books</b>	Paperback books, no-cover, etc.
<b>Hard Covered Books</b>	Text books, etc.
<b>Shredded Paper</b>	Paper that has been shredded mechanically into thin strips
<b>Tissue/Toweling</b>	Tissues, napkins, paper towels (includes wet/damp items)
<b>Other Paper</b>	Gift wrap, construction paper, etc. This is a default paper category and as such should not contain a large amount material.

<b>PAPER PACKAGING</b>	
<b>Corrugated Cardboard</b>	Includes micro-flute corrugated containers, pizza boxes, waxed corrugated containers, electronic product boxes such as television and computer boxes, boxes used to direct mail for residential consumers.
<b>Kraft Paper</b>	Kraft paper bags and wrap, grocery or retail bags, potato bags, some pet food bags, etc. Includes brown, white, and coloured kraft paper and bags. No bags with bonded plastic or foil liners/layers/coatings. Includes bags with a light grease coating.
<b>Boxboard / Cores</b>	Boxboard, paperboard, cereal box, shoe box, frozen food box, cores from toilet paper/ toweling/gift wrap, etc. Includes wet-strength boxboard, fast food cartons such as fry/onion ring boxes and paper plates
<b>Molded Pulp</b>	Egg cartons, drink trays, other trays, molded pulp flower pots/trays, etc.
<b>Polycoat Containers</b>	Hot food containers, with polycoat on inside only, soup cups/bowls, chili cups etc. Cold beverage/food containers with polycoat on both sides including fountain drinks, take-out ice cream cups.
<b>Ice Cream Containers and Other Bleached Long Polycoat Fibre</b>	Polycoated paper ice cream containers, typically with a lid, excluding boxboard folded ice cream boxes. Food containers with white fibre and a rolled or folded rim. includes Michelina's frozen food, KFC tubs.
<b>Laminated Paper Packaging</b>	Paper based packaging (at least 85% paper) with foil or plastic liners/layers/coatings, pouches, cookie bags, microwave popcorn bags, photographs, fast food sandwich wraps, gift bags, paper based trays, etc.
<b>Spiral Wound Containers</b>	Spiral wound cans with paper walls and plastic or metal tops or bottoms; frozen juice, Pringles, raisins, etc.
<b>Gable Top Containers</b>	Polycoat containers with a gable shaped top, milk and milk substitutes like soy, almond and rice milk, juices, some foods, sugar, molasses etc.
<b>Aseptic Containers</b>	Polycoat fibre and foil containers (e.g. Tetra Pak) for soy, almond and rice milk, juice boxes, water, soup, sauces, wine and other spirits etc.

**Region of Peel Waste Audit Program 2016/17 – SF Material Categories** **Page 2 of 4**

Material Category	Description / Examples
<b>PLASTICS</b>	
<b>#1 PET Bottles</b>	Soft drink/water bottles, salad dressing bottles, peanut butter jars, bottles used
<b>#1 PET Bottles 15L</b>	Large Water Bottles, eg. Ice River Springs
<b>#1 PET Bottles &gt; 5 Litres</b>	Water Bottles
<b>#1 PET - clear thermoform packaging</b>	Bakery trays, egg cartons, veggie trays, molded protective packaging
<b>#1 PET - other thermoform (coloured)</b>	Coloured PET microwave tray,s etc.
<b>#2 HDPE Bottles and Jugs (natural and coloured)</b>	Laundry detergent, bleach, vinegar, milk jugs, personal care products such as shampoos, conditioners and body wash, antifreeze containers, cleaning supplies, and alcoholic beverages
<b>#2 HDPE Bottles and Jugs &gt; 5 litres (natural and coloured)</b>	Laundry detergent, bleach, cleaning supplies



#2 Other HDPE Containers	Other #2 containers such as margarine and yogurt containers made from HDPE
#3 PVC	Tubs, condiment containers
Flexible Film Plastic – LDPE & HDPE	HDPE & LDPE film, dry cleaning bags, bread bags, frozen food bags, milk bags, toilet paper and paper towel over-wrap, lawn seed bags, grocery and retail carry-out bags Non-packaging HDPE & LDPE film (e.g. kitchen catchers, sandwich and freezer bags, etc.) goes in LDPE/HDPE Film - Products (non-packaging)
LDPE/HDPE Film - Products (non-packaging)	Garbage bags, kitchen catchers, zip lock bags, leaf bags
#5 PP Bottles	# 5 plastic bottles includes nutritional supplement drinks, shampoos, etc.
#5 Other PP Containers	# 5 containers such as margarine and yogurt containers and other containers made from PP, including tubs and lids with resin codes #5 PP
#6 PS - Expanded polystyrene	Foam take-out containers such as drink cups, large, white packaging foam, meat trays
#6 PS - Non-expanded - all other	Polystyrene clear clamshell containers such as berry and muffin containers, etc.
#7 Other Plastics	Margarine, sour cream, cottage cheese and yogurt tubs and lids, microwaveable food trays
Laminated/Other Plastic Film and Bags	Plastic film and bags that are at least 85% (by weight) plastic with up to 15% (by weight) other closely bonded or impregnated materials. This includes meat, poultry and fish wrap; vacuum sealed bacon bag; luncheon meat and cheese wrap; cereal liners; chip bags and other snack food bags; candy wraps; pasta bags; boil in a bag; plastic based food pouches; bubble wrap; cling wrap; some cookie bags, etc. No alcohol pouches / bag in box liners
Mixed Rigid Plastic (MRP) (black or brown)	Bottom of take out containers, e.g. Swiss Chalet
Large HDPE & PP Pails & Lids	>4 litres and < 25 litres HDPE & PP pails, lawn, garden, pool supplies, kitty litter, paint, etc.
Other Rigid Plastic Packaging	Blister packaging, tubes for cosmetic products, unmarked/coded packaging, etc.
Durable Plastic Products	Non-packaging such as VCR tapes, CDs, small toys, games, tupperware, etc. Include multi-material items that are mainly plastic – e.g. a plastic toy truck with metal axles. Plastic shoes, gloves, clothing go in Textiles.
<b>METALS</b>	
Aluminum Food & Beverage Containers	Soft drinks, soda, juice, certain brands of sardines, cat food, and aluminum alcoholic beverages, beer cans.
Aluminum Foil Trays	Pie plates, baking trays, etc.
Aluminum - aerosol containers	Mousse spray cans, air freshener spray cans, deodorant spray cans, hairspray cans, food spray cans for cheese or whipped cream
Other Aluminum - non-Blue Box	Aluminum siding, aluminum foil etc.
Steel Food & Beverage Cans	Apple juice, soup, beans, peaches, and steel alcoholic beverages, beer cans, e.g. Sapporo, etc.
<b>Region of Peel Waste Audit Program 2016/17 – SF Material Categories</b>	
<b>Page 3 of 4</b>	
<b>Material Category</b>	<b>Description / Examples</b>
Steel Aerosol Containers	Empty spray paint cans, cooking oil, whipped cream, etc.
Steel Paint Cans	Empty paint cans. No steel aerosol paint cans.
Other Metal	Scrap metal, copper pipe, hardware, etc. Includes multi-material items that are mainly metal. Includes empty propane tanks.
<b>GLASS</b>	
Clear Glass Beverage and Food	Coloured glass food and other beverage containers, all sizes, alcohol containers
Coloured Glass Beverage and Food	Coloured glass food and other beverage containers, all sizes, alcohol containers
Other Glass	Window glass, plates and glasses, light bulbs (fluorescent tubes and compact fluorescents go in Other HSW)
<b>HOUSEHOLD SPECIAL WASTE</b>	
Batteries	All types
Lubricating Oil Containers	
Paint & Stain containers	
Aerosols - Paint	
Aerosols - Solvents	
Aerosols - Pesticides	
Aerosols - Other	
Antifreeze containers	
Pesticide containers	
Fertilizer containers	
Compact Fluorescent Lights	
Motor Oil Containers	
Solvent containers	
Propane tanks	BBQ tanks
Helium tanks	Balloon tanks
Camping Tanks	Small, green tanks for camping stoves, etc.

Other HSW	Drug products, medicine, medical waste, ionized smoke detectors, etc. Look for signal words such as "Poison", "Danger", "Warning", "Caution", and "Precautionary Statements".
<b>HOME HEALTH CARE WASTE</b>	
Sharps	Needles, lancets, etc. used for Diabetes/insulin
Home Health Care Waste	Casts, catheters, dialysis waste (tubing, filters, disposable towels and sheets), disposable pads, gloves and masks, colostomy bags, gastric and nasal tubes, IV bags and tubing, soiled dressings, sponges.
<b>FOOD WASTE</b>	
Avoidable Food Waste	Edible food, spoiled food, largely uneaten portions, bought & forgotten, past BB /expiry date
Leftover Bakery	Bread, cookies, muffins, pies, rolls, etc.
Leftover Meat and Fish	Lunch meat, etc.
Leftover Dairy	Eggs, milk, cheese, etc.
Leftover Dried Food	Breakfast cereal, rice, etc.
Leftover Fruits and Vegetables	Partially eaten apple, carrot, etc.
Leftover Other	
Untouched Bakery	Bread still in bags, etc.
Untouched Meat and Fish	Meat still in packaging, etc.
Untouched Dairy	Yogurt still in cup, etc.
Untouched Dried Food	Breakfast cereal, etc.
Untouched Fruits and Vegetables	Grapes, lettuce, etc.
Untouched Other	
Unavoidable Food Waste	Food scraps, "preferences" or dietary restrictions, etc.
Bakery	Bread crusts
Meat and Fish	Bones, skin
Dairy	Cheese rinds
Dried Food	
Fruits and Vegetables	Apple cores, banana skins, carrot peels, etc.
Other	
<b>ORGANICS</b>	
Certified Compostable Plastic Bin Liners - Non-Packaging	Biodegradable Products Institute (BPI) certified compostable plastic green bin/kitchen container liners
Yard Waste	Brush, branches, wood chips, leaves, soil, plant material, ashes
Grass Clippings	grass clippings
<b>WEEE (Waste Electrical and Electronic Equipment)</b>	
Televisions	Televisions (Tube, Projection, Plasma, LCD, LED)
Computer Monitors	Computer Monitors (CRT, Flat panel/LCD)
Desktop Computers	Computer towers and internal/external components (power supplies, motherboards, cables, etc.)
Portable Computers	Laptop computers, notebooks, tablet PCs
Printing Devices	Printers, scanners, fax machines, copiers, all-in-one devices, typewriters, etc.
Computer Peripherals	Keyboards, computer mouse, disk drive, optical drives, modems
Audio/Video Equipment	DVD, Radio, VCR, cameras, Stereo Components (amplifiers, cassette decks, tuners, turntables, CD players, speakers), etc.
Telecom Equipment	Phones, pagers, PDAs, Blackberry, mobile phones, etc.
Small Home Appliances	Blenders, coffee machine, room humidifier, etc.
Other Electronics	Electronic games, toys, clocks, gadgets, anything with a plug or battery.
<b>BULKY ITEMS</b>	
Mattresses	Mattresses and box springs, futons, foam mattresses
Wood Furniture or Fixtures	Chairs, sofas, cabinets, tables, garden furniture, etc. made up of mostly wood
Plastic Furniture or Fixtures	Lawn chairs, etc.
Metal Furniture or Fixtures	Garden furniture, bed frames, etc.
<b>Region of Peel Waste Audit Program 2016/17 – SF Material Categories</b>	
<b>Page 4 of 4</b>	
<b>Material Category</b>	<b>Description / Examples</b>
Carpeting	Carpeting, underlay, mats
Other Large Bulky Items	Other large items not classified elsewhere
<b>OTHER MATERIALS</b>	
Garbage Bags (with contents)	Garbage bags containing mixed garbage, recycling and/or organics * <i>note all bags to be weighed (weight entered on main sort results sheet) then contents to be sorted and logged on separate sort results sheet</i>
Grocery or other Plastic Bags (with contents)	Grocery or other Plastic bags containing mixed garbage, recycling and/or organics * <i>note all bags to be weighed (weight entered on main sort results sheet) then contents to be sorted and logged on separate sort results sheet</i>
Diapers and Sanitary Products	Diapers, sanitary napkins, hygiene products, condoms, etc.



<b>Pet waste</b>	Animal feces, bedding, kitty litter
<b>Textiles</b>	Clothing, shoes, mats, drapes, sheets, etc. Plastic rice sacks go in Other Rigid Plastic Packaging
<b>Construction &amp; Renovation</b>	Lumber, wood cut off, drywall, ceramic tiles, plaster, etc.
<b>Tires and Other Rubber</b>	Rubber tires and tubes, other rubber items such as hoses
<b>Ceramics</b>	Ceramic plates, cups, plant pots, etc.
<b>Hot Take Out Cups</b>	Hot beverage containers, with polycoat on inside only, e.g Tim Horton's
<b>Recyclables with Contents</b>	Beverage bottles with liquid/frozen contents, etc.
<b>Fibre with Plastic Overwrap</b>	Beverage cases, e.g. water, soft drinks
<b>Fused Recyclables</b>	
<b>Other Plastics</b>	Bottle caps, broken plastic, etc.
<b>Coffee pods/cups</b>	Kuerig, Tassimo, etc.
<b>Hard Plastics</b>	Large toys, kiddie swimming pools, lawn chairs, etc.
<b>Debris and glass fines</b>	
<b>Other Waste</b>	Materials not classified elsewhere, wooden fruit basket, vacuum bags, wax candles, furnace filters, etc.
<b>Other Liquids</b>	

# Region of Peel Waste Audit Program 2016/17 – Single-Family Collection Log

Municipality: \_\_\_\_\_

Sample Area: \_\_\_\_\_

Collection Date (month/day/year): \_\_\_\_\_  
 Waste Generation Period (# of days)  
 (e.g. garbage - 7 days, recycling - 7 days, etc): \_\_\_\_\_

Weather Conditions: \_\_\_\_\_

Collection Team: \_\_\_\_\_

Collection Team Supervisor: \_\_\_\_\_

Setout	Street Name	Address	Amount of Material Set Out				Yard Waste	Bulky Items
			Mixed Recycling	Garbage	Green Bin Organics	Amount left at curb (kg)		
1			Number of items:**					
			Number of full containers:***					
2			Number of items:					
			Number of full containers:***					
3			Number of items:					
			Number of full containers:***					
4			Number of items:					
			Number of full containers:***					
5			Number of items:					
			Number of full containers:***					
6			Number of items:					
			Number of full containers:***					
7			Number of items:					
			Number of full containers:***					
8			Number of items:					
			Number of full containers:***					
9			Number of items:					
			Number of full containers:***					
10			Number of items:					
			Number of full containers:***					

\*\* Number of items set out at the curb (e.g. 1 cart, 1 bag, 1 box, 1 bundle, 1 loose item).

\*\*\* Number of full containers = number of full carts

Notes:



**Region of Peel Waste Audit Program  
2016/17  
Waste Sort Log for Single-Family Audits**

Municipality: _____	Waste Generation Period: (number of days) _____
Sample Area: _____	Sort Team Supervisor: _____
Waste Stream: _____	Sorting Team: _____
Date Material was Collected: _____ (month/day/year)	

Material Category	Net Weight (kg)*	Notes**
<b>PAPER</b>		
Newspaper – Dailys and Weeklys		
Newspaper - Other		
Telephone Books / Directories		
Magazines & Catalogues		
Mixed Fine Paper		
Soft Covered Books		
Hard Covered Books		
Shredded Paper		
Tissue/Toweling		
Other Paper		
<b>PAPER PACKAGING</b>		
Corrugated Cardboard		
Kraft Paper		
Boxboard / Cores		
Molded Pulp		
Polycoat containers		
Ice cream containers and Other Bleached Long Polycoat Fibre		
Laminated Paper Packaging		
Spiral Wound Containers		

**2016/17**

**Waste Sort Log for Single-Family Audits**

Sample Area: \_\_\_\_\_ Date Material was Collected (day/month/year): \_\_\_\_\_

Material Category	Net Weight (kg)	Notes
Gable Top Containers		
Aseptic Containers - (excluding alcoholic beverages)		
Aseptic Containers - alcoholic beverages		
<b>PLASTICS</b>		
#1 PET Bottles - excluding alcoholic beverage		
#1 PET Bottles 15L		
#1 PET Bottles > 5 Litres		
#1 PET Bottles - alcoholic beverage containers		
#1 PET - clear thermoform packaging		
#1 PET - other thermoform (coloured)		
#2 HDPE Bottles and Jugs (Natural and Coloured)		
#2 HDPE Bottles and Jugs > 5 litres (Natural and Coloured)		
#2 HDPE Bottles (alcoholic beverage containers)		
#2 Other HDPE Containers		
#3 PVC		
Flexible Film Plastic – LDPE & HDPE		
LDPE/HDPE Film - Products (non-packaging)		
#5 PP Bottles		
#5 Other PP Containers		
#6 PS - Expanded polystyrene		
#6 PS - Non-expanded - all other		
#7 Other Plastics		
Certified Compostable Plastic Bin Liners - Non-Packaging		
Laminated/Other Plastic Film and Bags		
Mixed Rigid Plastic (MRP) (black or brown)		
Large HDPE & PP Pails & Lids		

**2016/17**

**Waste Sort Log for Single-Family Audits**

Sample Area: \_\_\_\_\_ Date Material was Collected (day/month/year): \_\_\_\_\_

Material Category	Net Weight (kg)	Notes
Other Rigid Plastic Packaging		
Durable Plastic Products		

**METALS**

Aluminum Alcoholic Beverage Cans		
Aluminum Food & Beverage Containers		
Aluminum Foil Trays		
Aluminum - aerosol containers		
Other Aluminum - non-Blue Box		
Steel Alcoholic Beverage Cans		
Steel Food & Beverage Cans		
Steel Aerosol Containers		
Steel Paint Cans		
Other Metal		

**GLASS**

Clear Alcoholic Beverage Glass		
Coloured Alcoholic Beverage Glass		
Clear Glass Other Beverage and Food		
Coloured Glass Other Beverage and Food		
Other Glass		

**HOUSEHOLD SPECIAL WASTE**

Batteries		
Lubricating Oil Containers		
Paint & Stain containers		
Aerosols - Paint		
Aerosols - Solvents		
Aerosols - Pesticides		



**2016/17**

**Waste Sort Log for Single-Family Audits**

Sample Area: \_\_\_\_\_ Date Material was Collected (day/month/year): \_\_\_\_\_

Material Category	Net Weight (kg)	Notes
Aerosols - Other		
Antifreeze containers		
Pesticide containers		
Fertilizer containers		
Compact Fluorescent Lights		
Motor Oil Containers		
Solvent Containers		
Propane Tanks		
Helium Tanks		
Camping Tanks		
Other HSW		

**HOME HEALTH CARE WASTE**

Sharps		
Home Health Care Waste		

**FOOD WASTE**

<b>Avoidable Food Waste</b>		
Leftover Bakery		
Leftover Meat and Fish		
Leftover Dairy		
Leftover Dried Food		
Leftover Fruits and Vegetables		
Leftover Other		
Untouched Bakery		
Untouched Meat and Fish		
Untouched Dairy		
Untouched Dried Food		
Untouched Fruits and Vegetables		
Untouched Other		
<b>Unavoidable Food Waste</b>		

2016/17

Waste Sort Log for Single-Family Audits

Sample Area: \_\_\_\_\_ Date Material was Collected (day/month/year): \_\_\_\_\_

Material Category	Net Weight (kg)	Notes
Bakery		
Meat and Fish		
Dairy		
Dried Food		
Fruits and Vegetables		
Other		

**ORGANICS**

Yard Waste		
Grass Clippings		
Pet waste		

**WEEE (Waste Electrical and Electronic Equipment)**

Televisions		
Computer Monitors		
Desktop Computers		
Portable Computers		
Printing Devices		
Computer Peripherals		
Audio/Video Equipment		
Telecom Equipment		
Small Home Appliances		
Other Electronics		

**BULKY ITEMS**

Mattresses		
Wood Furniture or Fixtures		
Plastic Furniture or Fixtures		
Metal Furniture or Fixtures		
Carpeting		
Other Large Bulky Items		

**OTHER MATERIALS**

**2016/17**

**Waste Sort Log for Single-Family Audits**

Sample Area: \_\_\_\_\_ Date Material was Collected (day/month/year): \_\_\_\_\_

Material Category	Net Weight (kg)	Notes
Garbage Bags (with contents)		
Grocery or other Plastic Bags (with contents)		
Diapers and Sanitary Products		
Textiles		
Construction & Renovation		
Tires and Other Rubber		
Ceramics		
Aluminum Foil		
Hot Take Out Cups		
Other Polycoats		
Recyclables with Contents		
Fibre with Plastic Overwrap		
Fused Recyclables		
Composite Packaging		
Wrappers		
Less than 50 mL containers		
Less than 4 x 6 fibre		
Home Office Paper		
Home Office Supplies		
Other Plastics		
Coffee pods/cups		
Hard Plastics		
Debris and glass fines		
Other Waste		
Liquids		



# Region of Peel Waste Audit Program 2016/17

## Collection Results for Single-Family Audits

**Municipality:** \_\_\_\_\_  
**Sample Area** \_\_\_\_\_  
**Collection Date** (month/day/year): \_\_\_\_\_  
**Waste Generation Period** (# of days)  
 (e.g. garbage - 7 days, recycling - 7 days): \_\_\_\_\_  
**Weather Conditions:** \_\_\_\_\_  
**Collection Team:** \_\_\_\_\_  
**Collection Team Supervisor:** \_\_\_\_\_

Setout	Street Name	Address		Amount of Material Set Out				
				Mixed Recycling	Garbage	Green Bin Organics	Yard Waste	Bulky Items
1			Number of items:**					
			Number of full containers:***					
2			Number of items:					
			Number of full containers:***					
3			Number of items:					
			Number of full containers:***					
4			Number of items:					
			Number of full containers:***					
5			Number of items:					
			Number of full containers:***					
6			Number of items:					
			Number of full containers:***					
7			Number of items:					
			Number of full containers:***					
8			Number of items:					
			Number of full containers:***					
9			Number of items:					
			Number of full containers:***					
10			Number of items:					
			Number of full containers:***					
<b>Total number of items set out</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total full bag/box/cart equivalents</b>				<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Total number of households with a setout</b>				<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Average number of full bags/boxes/carts per house</b>								

\*\* Number of items at the curb (e.g. 1 cart, 1 bag, 1 bulky item).

\*\*\* Number of full containers = number of full carts/bags/cart equivalents (by volume, measured to the nearest 1/4 - e.g. 2.25/1.75 bags )

Notes:

**Instructions for Reporting Single-Family Waste Sort Results**

For each entry (i.e. one column in the spreadsheet), note the name of the municipality, the sample area (i.e. block of 10 homes), the waste stream (e.g. garbage, recyclables, green bin organics), the date the material was collected, generation period, etc. Mark an "BB" in column D if the material is accepted in curbside Blue Box Recycling or mark an "O" if material is accepted in organics recycling

Record weight measurements for each material under the "Weight (kg)" heading. Record multiple weights as follows: e.g. "=85.15+25.25". Enter a "0" if there is no material.

See the "Material Categories" spreadsheet for a detailed description of the categories and examples of materials included

Add comments using Excel "Comments" as follows: 1) Click the cell you want to comment on; 2) On the Insert menu, click Comment (or right-click the mouse and select "Insert Comment"); 3) Type your comment; 4) When you're done, click outside the comment box. Use "Comments" for notes on items that significantly affect the total weight measured for any one waste category (e.g. "includes a magazine collection that weighs 20.50 kg"). Use "Comments" for any other notes (e.g. "corrugated cardboard is wet")

Contact Stephanie Fernandes (905-791-7800 ext. 7892 or stephanie.fernandes@peelregion.ca) if you have any questions about sample collections, using this spreadsheet or reporting the data

Once all the data for the two week audit has been entered and checked for errors, summarize average(mean), standard deviation and 90% confidence interval of all category totals in a sort results summary sheet)

**Region of Peel Waste Audit Program 2016/17 - Waste Sort Results for Single-Family Audits**

Municipality:															
Sample Area:															
Waste Stream:															
Date Collected (month/day/year):															
Waste Generation Period (number of days):															
Audit Supervisor:															
Notes:															
Material Category	Accepted? ("X" if accepted in recycling or organics program)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)	Weight (kg)
<b>1. PAPER</b>															
Newspaper – Dailys and Weeklys	BB & O														
Newspaper - Other	BB & O														
Telephone Books / Directories	BB														
Magazines & Catalogues	BB														
Mixed Fine Paper	BB & O														
Soft Cover Books	BB														
Hard Cover Books															
Tissue/Toweling	O														
Shredded Paper	O														
Other Paper	BB														
<b>Total Paper</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>2. PAPER PACKAGING</b>															
Corrugated Cardboard	BB														
Kraft Paper	BB & O														
Boxboard / Cores	BB														
Molded Pulp	BB & O														
Polycoat Containers															
Ice cream containers & Other bleached long polycoat															
Laminated Paper Packaging															

### Instructions for Reporting Single-Family Waste Sort Results

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## Region of Peel Waste Audit Program 2016/17 - Waste Sort Results for Single-Family Audits

Spiral Wound Containers	BB														
Gable Top Containers	BB														
Aseptic Containers - (excluding alcoholic beverages)	BB														
Aseptic Containers - alcoholic beverages	BB														
<b>Aseptic Containers Total</b>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Paper Packaging</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>3. PLASTICS</b>															
#1 PET Bottles - excluding alcoholic beverage	BB														
#1 PET Bottles 15 Litres															
#1 PET Bottles > 5 Litres	BB														
#1 PET Bottles - alcoholic beverage containers	BB														
<b>#1 PET Bottles Total</b>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#1 PET - clear thermoform packaging	BB														
#1 PET - other thermoform (coloured)	BB														
#2 HDPE Bottles and Jugs (Natural)	BB														
#2 HDPE Bottles and Jugs > 5 litres (Natural)	BB														
#2 HDPE Bottles and Jugs (Coloured)	BB														
#2 HDPE Bottles and Jugs > 5 litres (Coloured)	BB														
#2 HDPE Bottles (alcoholic beverage containers)	BB														
#2 Other HDPE Containers															
<b>#2 HDPE Containers Total</b>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#3 PVC	BB														
Flexible Film Plastic - LDPE & HDPE	BB														
LDPE/HDPE Film - Products (non-packaging)	BB														
#5 PP Bottles															
#5 Other PP Containers	BB														
#6 PS - Expanded polystyrene	BB														
#6 PS - Non-expanded - all other	BB														
#7 Other Plastics	BB														
Certified Compostable Plastic Bin Liners - Non-Laminated/Other Plastic Film and Bags	O														
MRP (Black or Brown)															
Large HDPE & PP Pails & Lids															
Other Rigid Plastic Packaging															
Durable Plastic Products															
<b>Mixed Rigid Plastics Total</b>		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Plastics</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>4. METALS</b>															
Aluminum Alcoholic Beverage Cans	BB														



**Instructions for Reporting Single-Family Waste Sort Results**

For each entry (i.e. one column in the spreadsheet), note the name of the municipality, the sample area (i.e. block of 10 homes), the waste stream (e.g. garbage, recyclables, green bin organics), the date the material was collected, generation period, etc. Mark an "BB" in column D if the material is accepted in curbside Blue Box Recycling or mark an "O" if material is accepted in organics recycling

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**Region of Peel Waste Audit Program 2016/17 - Waste Sort Results for Single-Family Audits**

Aluminum Food & Other Beverage Cans	BB														
<b>Aluminum Food &amp; Beverage Cans Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Aluminum Foil Trays	BB														
Aluminum Aerosol Containers	BB														
Other Aluminum - non Blue Box															
Steel Alcoholic Beverage Cans	BB														
Steel Food & Other Beverage Cans	BB														
<b>Steel Food &amp; Beverage Cans Total</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Steel Aerosol Cans	BB														
Steel Paint Cans	BB														
Other Metal															
<b>Total Metals</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>5. GLASS</b>															
Clear Alcoholic Beverage Glass	BB														
Coloured Alcoholic Beverage Glass	BB														
Clear Glass Other Beverage and Food	BB														
Coloured Glass Other Beverage and Food	BB														
Other Glass															
<b>Total Glass</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>6. HOUSEHOLD SPECIAL WASTE</b>															
Batteries															
Lubricating Oil Containers															
Paint & Stain containers															
Aerosols - Paint															
Aerosols - Solvents															
Aerosols - Pesticides															
Aerosols - Other															
Antifreeze containers															
Pesticide containers															
Fertilizer containers															
Compact Fluorescent Lights															
Motor Oil Containers															
Solvent containers															
Propane Tanks															
Helium Tanks															
Camping Tanks															
Other HSW															
<b>Total HSW</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>









Date Collected	Waste generation period	Municipality	Season	Sample Area	Waste Stream	Material Category	Material Sub category (Please Specify)	Material Sub category- Other	Measure
Month/day/year	Number of days	Newmarket, East Gwillimbury, Georgina, Vaughan, King, Markham, Aurora, Whitchurch Stouffville or Richmond Hill	Winter, spring, summer or fall	Street	Waste stream being sampled	Category found within waste stream	Subcategory found within waste stream	Specified material	Weight (kg)
Example	3/13/18 7 days	Newmarket	Winter	Ray Snow Blvd.	Mixed Recycling	Paper	Newspaper	N/A	12.31

Date	Season	Week #	Weather Conditions	Collection streams	Street	Municipality	House #	Total weight of Green Bin	Equivalent # Mixed Recycling set out	Equivalent # of Garbage Bags Set Out	Equivalent # of green bin containers set out	Equivalent # Yard Waste bags set out	Number of full recycling containers	Number of full garbage containers	Number of full green bin containers	Number of full yard waste containers	Total Weight of Green Bin Containers Set Out	Notes
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## 2018 Single Family Audit Categories

Material Category	Description
<b>Paper</b>	
Newspaper	Daily and weekly newspapers published by the Canadian Newspaper Association (CNA) and the Ontario Community Newspapers Association (OCNA); Globe and Mail, Toronto Star, Hamilton Spectator, community newspapers. Consult Stewardship Ontario's list of OCNA/CNA publications. No inserts, flyers and magazines from newspapers.
Telephone Books / Directories	Telephone books and other directories such as the Yellow Pages
Magazines & Catalogues	Glossy magazines, catalogues, calendars, annual reports (must be bound, i.e. stapled or glued).
Mixed Fine Paper	Fine household papers, writing paper, office paper, copy paper, bills and statements, ad mail, etc. Includes glossy flyers and advertising that are not distributed with newspapers.
Damaged Books	Hard and soft covered books that are not in a reusable condition.
<b>Paper Packaging</b>	
Corrugated Wine Bag in Box	Corrugated box from bag in box wine containers. No plastic liners.
Other Corrugated	Includes micro-flute corrugated containers, pizza boxes, waxed corrugated containers, etc.
Kraft Paper	Kraft paper bags and wrap, grocery or retail bags, potato bags, some pet food bags, etc. Includes brown, white, and coloured Kraft paper and bags. No bags with bonded plastic or foil liners/layers/coatings. Includes bags with a light grease coating.
Boxboard / Cores	Boxboard, paperboard, cereal box, shoe box, frozen food box, cores from toilet paper/ toweling/gift wrap, etc. Includes wet-strength boxboard, fast food cartons such as fry/onion ring boxes and paper plates
Molded Pulp	Egg cartons, drink trays, other trays, molded pulp flower pots/trays, etc.
Composite Cans	Spiral wound cans with paper walls and plastic or metal tops or bottoms; frozen juice, Pringles, raisins, etc.
Gable Top Cartons	Polycoat containers with a gable shaped top; milk, juice, some foods, etc.
Aseptic Alcohol Containers	Tetra pak type polycoat packaging for alcoholic beverages
Aseptic Other Containers	Tetra pak type polycoat packaging, juice boxes, soup, etc.
<b>Plastics (no black plastics)</b>	
PET Alcohol Bottles	#1 clear and coloured alcohol bottles.
PET Other Beverage Bottles	#1 soft drink, water, juice, etc.
PET Other Bottles & Jars	#1 food and non-beverage bottles and jars, cooking oil, peanut butter, dish soap, etc.
PET Food Packaging	#1, bakery, clamshells, trays, microwaveable trays, egg cartons. No bottles and jars
HDPE Beverage Bottles	#2 beverage bottles and jugs, juice, milk, etc.
HDPE Other (Non Beverage Bottles)	#2, laundry soap, shampoo, windshield washer fluid, etc.
PVC Bottles & Jars	#3 bottles and jars only, lotions, soaps, bug repellants, shampoos, etc

	(PVC blister/bubble packs go into "Other Rigid Plastic Packaging")
Polystyrene Rigid Food Packaging	#6 PS, trays, clamshells, cups & lids, pill and vitamin bottles, seedling trays, PS used to protect boxed product, etc. Non-packaging PS (e.g. plastic cutlery) goes into the "Durable Plastic Products" category
Other Plastic Alcohol Containers	Other plastic alcoholic containers.
Other Bottles, Jars & Jugs	#4 LDPE, #5 PP, #7 mixed resin, mustard, ketchup, some juices
Wide Mouth Tubs & Lids	# 2 HDPE, #4 LDPE & #5 PP tubs and lids, dairy products, etc.
Large HDPE & PP Pails & Lids	>4litres and < 25 litres HDPE & PP pails, lawn, garden, pool supplies, kitty litter, paint, etc
<b>Metals</b>	
Aluminum Alcoholic Beverage Cans	Aluminum alcoholic beverages, beer cans.
Aluminum Food & Other Beverage Cans	Soft drinks, soda, juice, certain brands of sardines and cat food
Aluminum Foil & Foil Trays	Aluminum foil wrap, pie plates, baking trays, etc.
Other Aluminum Containers	Aluminum aerosol containers, hair products, etc.
Steel Alcoholic Beverage Cans	Steel alcoholic beverages, beer cans, Sapporo, etc.
Steel Food & Other Beverage Cans	Apple juice, soup, beans, peaches, etc. No alcohol containers.
Steel Aerosol Cans	Empty spray paint cans, cooking oil, whipped cream, etc.
Steel Paint Cans	Empty paint cans. No steel aerosol paint cans.
<b>Glass</b>	
Clear Alcoholic Beverage Glass	Clear alcoholic beverage glass containers.
Coloured Alcoholic Beverage Glass	Coloured alcoholic beverage glass containers.
Clear Glass Other Beverage and Food	Coloured glass food and other beverage containers, all sizes
Coloured Glass Other Beverage and Food	Coloured glass food and other beverage containers, all sizes
<b>Organics</b>	
Unavoidable Food Waste	Vegetable and fruit peelings, meats, fish, fats, oils, bones, etc.
Yard Waste	Brush, branches, wood chips, soil, plant material, ashes
Grass Clippings	Small amounts of grass & leaves
Small Wood Waste	Wood cutlery, stir sticks, toothpicks, pieces of wood less than 2 ft. (no lumber)
Pet Waste	Animal feces, bedding, kitty litter
Diapers	Diapers
Sanitary	Sanitary napkins, hygiene products, etc.
Certified Compostable Plastic Bin Liners	Biodegradable Products Institute (BPI) certified compostable plastic green bin/kitchen container liners
Tissue/Towelling	Tissues, napkins, paper towels (includes wet/damp items)
Shredded Paper	Small amounts of shredded paper
Other Compostable Paper	Biodegradable Products (BPI) certified compostable plastic green

	bin/kitchen catcher liners
<b>Wasted Food</b>	
Leftover Bakery	Bread slice, crusts, cake, muffin etc.
Leftover Meat & Fish	Pork chop, ham slice salmon steak etc
Leftover Dried Food	Breakfast cereal, pasta shells, rice etc.
Leftover Fruits & Vegetables	Potatoes, whole carrots, turnip, pumpkin, apples, oranges etc.
Leftover Other	Food that does not fit into the above categories
Untouched Bakery	Bread slice, crusts, cake, muffin etc.
Untouched Meat & Fish	Pork chop, ham slice salmon steak etc.
Untouched Dried Food	Breakfast cereal, pasta shells, rice etc.
Untouched Fruits & Vegetables	Potatoes, whole carrots, turnip, pumpkin, apples, oranges etc.
Untouched Other	Food that does not fit into the above categories
<b>Household Special Waste</b>	
Batteries	All types
Paint & Stain	Cans / tubs still containing product, oil and latex paint, wood stain, varnish, etc.
Motor Oil	Oil filters and jugs or cans still containing oil
Other HSW liquids	Solvents, antifreeze, acids, pool chemicals, weed killer, gasoline, brake fluid, glues, adhesives, cleaners, nail polish remover, etc. Look for signal words such as "Poison", "Danger", "Warning", "Caution", and "Precautionary Statements".
Other HSW	Sharps, drug products, medicine, medical waste, fluorescent tubes, ionized smoke detectors, etc. Look for signal words such as "Poison", "Danger", "Warning", "Caution", and "Precautionary Statements".
<b>Waste Electrical Electronic Equipment</b>	
Computer Monitors	Damaged display and computers monitors
Computer Components	Damaged computer towers, laptops and modems etc.
Computer Peripheral Devices	Damaged mouse, keyboards, expansion cards, etc.
Audio/Video Equipment	Damaged VCRs, DVD players etc.
Telecom Equipment	Damaged radios, stereos and speakers etc.
Other Electronics	Other damaged electronics. Example, cameras
<b>Reusable Materials</b>	
Textiles	Clothing, shoes, mats, drapes, sheets, etc. in good condition
Shoes	Clean, without rips or tears
Durable Plastic Items	Plastics bins/containers in good condition
Books	In good condition
Furniture	Shelves, tables, chairs, etc. in good condition
Electronics	Devices in workable condition
Other Reusable Items	Other items not included in the above
<b>Bulky Items</b>	
Mattresses	Mattresses and box springs, futons, foam mattresses
Wood Furniture or Fixtures	Wall panels & damaged or unusable cabinets etc.
Plastic Furniture or Fixtures	Damaged or unusable drapery panels & cabinets etc.



Metal Furniture or Fixtures	Damaged or unusable panels, cabinets, etc.
Carpeting	Carpeting, underlay, mats
Other Large Bulky Items	Other items that does not fit into the above categories
<b>Other Materials</b>	
Laminated Paper Packaging	Paper based packaging (at least 85% paper) with foil or plastic liners/layers/coatings, pouches, cookie bags, microwave popcorn bags, fast food sandwich wraps, gift bags, paper based trays, etc.
PET Other Packaging	Other #1 packaging, Non food
Waxed paper cups	Paper cups lined with plastic or wax. Example, fast food cold drink cups
Polystyrene Foam Packaging	#6 PS, trays, clamshells, cups & lids, PS used to protect boxed product
Polyethylene Plastic Bags & Film - Carry Out Bags	HDPE & LDPE retail carry-out bags
Polyethylene Plastic Bags & Film - Packaging	HDPE & LDPE bags/sacks, dry cleaning bags, bread bags, frozen food bags, milk bags, toilet paper and toweling, over-wrap, lawn seed, soil, peat moss, etc.
Polyethylene Plastic Bags & Film - Non-Packaging	HDPE & LDPE garbage bags, kitchen catchers, blue or clear bags for recyclables, sandwich and freezer bags, etc.
Laminated Pouches & Bag in Box Liners for Alcohol	Laminated plastic pouches and plastic bag-in-box liners for wine and other alcoholic beverages.
Laminated/Other Plastic Film and Bags	Plastic film and bags that are at least 85% (by weight) plastic with up to 15% (by weight) other closely bonded or impregnated materials. This includes meat, poultry and fish wrap; vacuum sealed bacon bag; luncheon meat and cheese wrap; cereal liners; chip bags and other snack food bags; candy wraps; pasta bags; boil in a bag; plastic based food pouches; bubble wrap; cling wrap; some cookie bags, etc. No alcohol pouches / bag in box liners.
Other Rigid Plastic Packaging	Blister packaging, tubes for pharmaceutical & health care/cosmetic products, plant pots, unmarked/coded packaging, etc.
Durable Plastic Products	Non-packaging such as VCR tapes, CDs, toys, games, tupperware, etc. Include multi-material items that are mainly plastic – e.g. a plastic toy truck with metal axles. Plastic shoes, gloves, clothing go in Textiles.
Other Metal	Scrap metal, copper pipe, hardware, etc. Includes multi-material items that are mainly metal. Includes empty propane tanks.
Other Glass	Window glass, plates and glasses, light bulbs (fluorescent tubes and compact fluorescents go in Other HSW)
Textiles	Clothing, shoes, mats, drapes, sheets, etc. not in reusable condition
Wood - Clean	Scrap lumber, no painted or treated wood.
Wood - Treated	Painted or treated wood.
Drywall - New	Clean drywall scrap from new construction projects.
Drywall - Used	Used drywall, painted or wet/mouldy.
Shingles	Roof shingles.
Other Construction & Renovation	Ceramic tiles, plaster, etc.
Tires and Other Rubber	Rubber tires and tubes, other rubber items such as hoses.
Ceramics	Ceramic plates, cups, plant pots, etc. - NOT in reusable condition

Bagged Recyclables	Recyclable material contained in bags.
Other Waste	Other waste that does not fit into the above categories, Materials not classified elsewhere, vacuum bags, wax candles, furnace filters, household liquids, etc.
Keurig Containers	K-cups/single serves coffee cups.
Black Plastics	All black plastics
Hot Beverage Paper Cups	Includes paper based cups with a plastic lining/layer such as coffee cups, soup cups, french-fry cups. Does not include containers that are plastic or plastic based.
Ice-Cream Containers & other paper containers with plastic lining	Includes paper based cups/ containers with a plastic lining/layer such as soup cups, french-fry cups. Does not include containers that are plastic or plastic based.





# **Appendix B**

## **Sample Resident Letter**



Environmental Services Department  
Environmental Promotion & Protection Branch

October 13, 2016

Dear Resident,

**Re: Integrated Waste Management Master Plan: Three Stream Waste Study**

Your family is one of 100 that have been randomly selected to participate in a Three Stream Waste study organized by York Region and your local municipality. The project, studying the composition of York Region's Green Bin, Blue Box, and Residual Waste material streams will run periodically over the next 12 months.

Today, staff from [Consultant]. will be conducting this study to determine the composition of three stream waste on a Region-wide basis. Please be assured that you will not be personally identified, all data collected will be kept confidential, and data will be used for statistical purposes only.

Information gathered from this project will help us to better understand our collection, processing, and education programs, and will assist in the development of the Region's Integrated Waste Management Master Plan.

Thank you for your cooperation. If you have any questions please do not hesitate to contact me at [Phone Number].

Sincerely,

Name  
Solid Waste Audit Officer

eDOCS #

April 28, 2017

Dear Peel Resident,

The Region of Peel has set a goal of diverting 75 per cent of residential waste from landfill disposal. In order to reach this goal, Peel residents are provided with blue cart recycling, green cart organics, and yard waste collection programs. These programs are studied in order to evaluate their success in diverting materials from landfill.

As part of this study, the Region of Peel Waste Management Division is conducting residential curbside waste audits in each season across the Region throughout 2017.

Your street has been selected as part of this study. Our consultant, [REDACTED], will be collecting garbage, blue cart recycling, and green cart organics during a one month period in each season. All other materials, such as bulky items and yard waste, will be collected as part of your regularly scheduled collection service.

Thank you for your cooperation while we conduct this project. For further information please contact [REDACTED] at

[REDACTED] or [REDACTED].

Regards,

[REDACTED]  
Waste Program Planning

## **Curbside set out weight study FAQ and study info**

### **Audits begin: June 15th**

#### **What is this study?**

This study is a cooperative project between the Region and the University of Guelph. Homes in all 9 municipalities have been selected to have their curbside set outs weighed and tracked over a 4 week period. After this audit period, staff will be going out to survey residents about their waste generation habits to better understand waste generation trends and behaviors

#### **What does the resident need to do?**

Please set out material regularly, the study will not impact collection of material

#### **Why are people weighing my garbage?**

This information will be used to better understand how the Region is currently doing in waste generation and diversion throughout the Region. This information will help to develop new programs and educational tools to make it easier for residents to reduce waste generation and save money.

No material is being taken or sorted through; this study is strictly to do with weight.

#### **Will I be identified?**

Participation in the study is anonymous and all information will be used only for research purposes

#### **How long is the study happening for?**

Curbside audits will occur between June 15<sup>th</sup> and August 7<sup>th</sup>, while surveys will be occurring between July 27<sup>th</sup> and September 4<sup>th</sup>.

#### **What if I don't want to participate in the study?**

No resident is required to participate in the study, if you wish not to participate simply let the surveyors know and they will not return.

#### **Who can I contact for more information or concerns?**

If a resident has additional questions or concerns, please direct them to contact:





# **Appendix C**

## **Sample RFP**



**THE REGIONAL MUNICIPALITY OF YORK**  
**REQUEST FOR PROPOSAL**  
**(GOODS AND SERVICES)**

**P-16-89**

**SINGLE FAMILY CURBSIDE AUDIT SERVICES**

Date of Release of RFP:	August/ 15/ 2016
Closing Time for Submission of Proposal:	September/ 01 / 2016 on or before 1:00 p.m. Eastern Time
Submit Proposal to:	Director of Supplies and Services Supplies and Services Branch, 1 <sup>st</sup> Floor The Regional Municipality of York 17250 Yonge Street Newmarket, ON L3Y 6Z1

## Table of Contents

<b>Section 1 - RFP Procurement Process</b>	<b>4</b>
1.1 Invitation	4
1.2 Costs Incurred by Proponents	4
1.3 Acceptance of Terms	4
1.4 Purchasing Bylaw	4
1.5 Schedule	4
1.6 Proponents' Information Meeting	5
1.7 Communications	5
1.8 Lobbying Prohibited	6
1.9 Blackout Period	6
1.10 Addenda	6
1.11 Submission Process	7
1.12 Form of Proposal	8
1.13 Pricing Information	8
1.14 Conflicts of Interest	8
1.15 Confidentiality	8
1.16 Errors and Omissions	9
1.17 Subcontracting	9
1.18 Proponents structured as a Joint Venture or Consortium	9
1.19 Legislative and Licensing Requirements	9
1.20 Municipal Freedom of Information and Protection of Privacy Act	9
1.21 Co-operative Purchasing	10
1.22 Collusion	10
1.23 Non-Exclusive	10
1.24 Performance Evaluation	10
1.25 Contract Terms and Conditions	10
1.26 Insurance Requirements	11
<b>Section 2 - Proposal Submission (Format and Content)</b>	<b>11</b>
2.1 Technical Proposal (Envelope A)	11
2.2 Financial Proposal (Envelope B)	13
<b>Section 3 - Proposal Evaluation</b>	<b>13</b>
3.1 Evaluation Matrix	13
3.2 Evaluation Process	14
3.2.1 Completeness Review of the Proposal (Step 1)	14
3.2.2 Evaluation of Technical Proposal (Step 2)	15
3.2.3 Evaluation of Financial Proposal (Step 4)	15
3.2.4 Determining a Proposal's Overall Score (Step 5)	15



3.3	Negotiations with Selected Proponent(s)	16
3.4	Clarifications	16
3.5	Award of Contract	16
<b>Section 4 -</b>	<b>Legal Matters and Disclaimers</b>	<b>17</b>
4.1	No Liability	17
4.2	Amendment of Process	17
4.3	Rejection of Proposals	17
4.4	Cancellation of Process	17
4.5	Non-Recourse	18
4.6	Governing Law	18
	<b>Schedule A Glossary of Defined Terms</b>	<b>19</b>
	<b>Schedule B RFP Requirements</b>	<b>20</b>
	<b>Purpose, Objectives, Scope:</b>	<b>21</b>
	<b>Timeframes and Deliverables</b>	<b>25</b>
	<b>Schedule C Form of Proposal</b>	<b>28</b>
	<b>Schedule D Financial Proposal Form (Envelope B)</b>	<b>29</b>
	<b>Schedule E Qualification References</b>	<b>30</b>
	<b>Schedule F Contract Terms and Conditions</b>	<b>31</b>
	<b>Schedule F.1 Insurance</b>	<b>39</b>

## **SECTION 1 - RFP PROCUREMENT PROCESS**

### **1.1 Invitation**

The Region is inviting Proposals from qualified Proponents to provide single family curbside audit services as described in Schedule B (RFP Requirements).

### **1.2 Costs Incurred by Proponents**

Proponents are responsible for all costs associated with the preparation and submission of Proposals to the Region, or any work performed in connection with submitting a Proposal. The Region will not make any payment for any Proposals received, or for any other effort required of, or made by Proponents prior to the commencement of the Services under the Contract.

### **1.3 Acceptance of Terms**

Each Proponent, by submitting a Proposal, represents that the Proponent has read and completely understands the terms and conditions of this RFP in full. Proponents must comply with the terms and conditions set out in this RFP, failing which the Region may reject the Proposal.

### **1.4 Purchasing Bylaw**

Proposals will be called, received, evaluated, accepted and processed in accordance with the Region's Purchasing Bylaw and Tendering/Proposal Procedures. By submitting a Proposal in response to this RFP, Proponents agree to be bound by the terms and conditions of the Purchasing Bylaw and Procedures and any amendments from time to time, as fully as if they were incorporated herein.

Click on the items below to view a copy of the document listed:

[Purchasing Bylaw 2014-53](#)

[Region's Tendering/Proposal Procedures](#)

Proponents are advised that, unless otherwise permitted by the Region's Purchasing Bylaw, the Region will not accept any Proposal or award any contract to any Proponent with whom the Region is engaged in unresolved litigation, as determined under, and subject to, the applicable provisions of the Purchasing Bylaw.

### **1.5 Schedule**

The RFP process will be administered according to the following schedule. Although every attempt will be made to meet all dates, the Region reserves the right to modify any or all dates in its sole discretion.

Schedule Event	Target Date (Subject to Change)
Release of RFP	August 15, 2016
Proponents' Information Meeting (if applicable)	August 22, 2016
RFP Submission of Proposals Deadline	By 1:00 p.m. Eastern Time on September 01, 2016
Proponent Interviews (if applicable)	N/A
Award of Contract	October 10, 2016

### 1.6 Proponents' Information Meeting

Proponents are invited to attend an Information Meeting to be held on the date set out in Section 1.5 (Schedule) commencing at [9:00am] at the [100 Garfield Wright Boulevard, East Gwillimbury, Ontario, L0G 1V0]. Attendance at the Information Meeting is recommended but is not mandatory.

All Proponents are encouraged to email any questions to the Region's Purchasing Analyst identified in Section 1.7 (Communications) a minimum of three (3) business days before the Information Meeting. The Region will respond to all questions submitted in advance and all questions asked at the meeting. The Region will send minutes of the meeting to each Proponent as an addendum to form part of this RFP.

### 1.7 Communications

Proponents are responsible for seeking clarification of any matter that they consider unclear before submitting a Proposal. The Region is not responsible for any misunderstanding of this RFP on the part of the Proponent.

All inquiries regarding this RFP, save and except for an inquiry made under Section 1.20 (Municipal Freedom of Information and Protection of Privacy Act), shall be made to:

Contact, Supplies and Services Branch

Telephone:

Facsimile:

Email:

No employee or agent of the Region is authorized to amend or waive the requirements of this RFP in any way unless the amendment or waiver is issued by an addendum in accordance with the provisions in Section 1.10 (Addenda). Under no circumstances shall Proponents rely upon any information or instructions from the Region, its employees, or its agents, unless the information or instructions are provided in writing in the form of an addendum.

If any Proponent requires an accommodation due to a disability, requests should be directed to the Region's Purchasing Analyst referenced above.

## **1.8 Lobbying Prohibited**

Proponents, including their subcontractors, consultants, agents, officials and employees shall not engage in any form of political or other lobbying whatsoever with respect to this RFP or seek to influence the outcome of the RFP process. This anti-lobbying clause applies to communications with all members of Regional Council, members of local municipal councils within the Region, and their respective staff members or their appointees, including members of the Region's RFP evaluation teams. If any Proponent or related party is found to be engaging in lobbying, the Region will reject the Proponent's Proposal without further consideration and terminate that Proponent's right to continue in the RFP process. All correspondence or contact by Proponents with the Region with respect to this RFP must be directly and only with the Purchasing Analyst identified in Section 1.7 (Communications).

The anti-lobbying clause applies from the release date of this RFP until the date and time when the Contract has been awarded or this RFP has been cancelled.

The anti-lobbying clause shall not be construed as prohibiting any activity which is duly authorized as part of the RFP process, including meetings, interviews, presentations, or any public deputations that may be made to a Regional Committee or Council in accordance with the Region's Procedural Bylaw.

## **1.9 Blackout Period**

The Region prohibits communications with respect to this RFP initiated by a Proponent to any representative of the Region (including consultants) and any Regional employee from the Closing Time up to and including the date that the Contract has been awarded or this RFP has been cancelled (the "**Blackout Period**"). As per the provisions of Section 1.7 (Communications), any and all communication between any Proponent and the Region during the Blackout Period shall be undertaken only through the Region's Purchasing Analyst identified in Section 1.7 (Communications). Any Proponent found to be in contravention may be disqualified from further consideration in this RFP process and any future Regional procurement process.

## **1.10 Addenda**

Any amendments, new information, or clarifications to this RFP will be posted to the Region's [Bids and Tenders](#) Website in the form of an addendum.

The onus remains with Proponents to ensure that they have downloaded all addenda posted prior to submission of their Proposal, whether or not they have received notification from the Region's [Bids and Tenders](#) Website.

The Region will not be liable for misdirected notices of addenda which may result from Proponents who fail to update their contact information and/or Proponents who fail to check for addenda prior to submitting their Proposal.



In the event that this RFP is amended via addendum, all terms and conditions of this RFP which are not modified shall remain unchanged.

Each Proponent shall acknowledge receipt of any addenda to this RFP by initialling in the appropriate space provided on the Form of Proposal, if applicable. Where there is no evidence of receipt of all addenda, save and except for any addendum which the Region deems, in its sole opinion, to be administrative in nature, the Proposal may be rejected.

### **1.11 Submission Process**

Each Proponent is to submit six (6) identical sets of the Technical Proposal (Envelope A) – one (1) bound original copy identified as “Master” and five (5) copies marked “Copy,” sealed and clearly marked as to contents.

Each Proponent is to also submit two (2) identical sets of the Financial Proposal (Envelope B) – one (1) bound original copy identified as “Master” and one (1) copy marked “Copy”, sealed and clearly marked as to contents.

A Technical Proposal (Envelope A) that contains pricing information may render the Proposal non-compliant and may result in such Proposal being disqualified from further consideration.

All Proposals are to be submitted to and are to be received by the:

Director of Supplies and Services  
Supplies and Services Branch, 1<sup>st</sup> Floor  
The Regional Municipality of York  
17250 Yonge Street  
Newmarket, ON L3Y 6Z1

on or before 1:00 p.m., Eastern Time, on the date identified in Section 1.5 (Schedule) for submission of Proposals (the “**Closing Time**”).

Immediately following the Closing Time, the Region will open Proposals for registration of Proposals only. A list of Proponents will be available on the [Bids and Tenders](#) Website after opening of Proposals.

Proponents are responsible for delivery of their Proposals to the designated location, by the Closing Time, in accordance with the submission process. The Region will not accept faxed or electronic Proposals in response to this RFP. Any Proposal received after the Closing Time, regardless of the circumstances, will not be accepted and will be returned unopened to the Proponent. Proponents will not be permitted to adjust Proposals by telephone, fax or electronically.

Proponents will be permitted to withdraw their Proposal after it has been delivered, if a request is received in writing by the Region’s Purchasing Analyst identified in Section 1.7 (Communications), prior to the Closing Time. Any such Proposal will be returned unopened to the Proponent.

Proposals that are incomplete, illegible, or conditional, in a material way in the Region's sole opinion may be rejected.

Proposals are to be signed by an individual(s) who has the authority to bind the Proponent. Original signatures are not required and a scanned copy or copy will suffice. Erasures, overwriting and strike-outs will not be reason for rejection, provided that all such changes are legible and have been initialled by an authorized signatory of the Proponent.

### **1.12 Form of Proposal**

Proponents shall complete the Form of Proposal in the form or substantially in the form set out in Schedule C (Form of Proposal). Proponents are to provide all information as required in the Form of Proposal. The Form of Proposal must be signed by duly authorized officers/representatives of the Proponent.

### **1.13 Pricing Information**

Proponents shall complete the Financial Proposal Form in the form or substantially in the form set out in Schedule D (Financial Proposal Form). Proponents are to provide all pricing information as required in the Financial Proposal Form. The Financial Proposal Form shall set out the total price (the "**Contract Price**") for which the Proponent agrees to provide the Services.

The Contract Price shall include any taxes including duties and excise taxes, and any other costs to fulfil the Contract but shall exclude Harmonized Sales Tax ("**HST**"). All pricing is to be expressed in Canadian currency.

### **1.14 Conflicts of Interest**

Each Proponent, in its Proposal, shall declare all conflicts of interest or any circumstance that may be reasonably perceived as a conflict of interest that exists now, or may exist in the future.

The Region may, in its sole discretion, waive any and all actual, potential, or perceived conflicts of interest, on such terms and conditions as the Region, in its sole discretion, considers to be required to satisfy itself that any actual, potential or perceived conflict of interest has been appropriately managed, mitigated and minimized. In this regard the Region may require the Proponent to implement measures or take other steps to manage or mitigate the impact of any actual, potential or perceived conflict of interest.

### **1.15 Confidentiality**

Proponents are not to divulge any confidential information communicated to or acquired by the Proponent or disclosed by the Region in the course of this RFP process without the prior written consent of the Region. The Region reserves the right to disqualify from the RFP process a Proponent who in the Region's opinion has breached this requirement for confidentiality.

### **1.16 Errors and Omissions**

The Region shall not be held liable for any errors or omissions in any part of this RFP. While the Region has used reasonable efforts to ensure an accurate representation of information in this RFP, the information contained in this RFP is supplied solely as a guideline for Proponents. The Region does not guarantee or warrant that the information is accurate, comprehensive or exhaustive. Nothing in this RFP is intended to relieve Proponents from forming their own opinions and conclusions with respect to the matters addressed in this RFP.

### **1.17 Subcontracting**

It is understood and agreed that the Contractor will be an independent contractor and that the employees or agents of the Contractor will perform the Contract. Subcontracting agreements made by the Contractor will not release the Contractor from any obligation to the Region with respect to the performance of its obligations under the Contract. The Region will not be responsible for payment to the Contractor's partners, subcontractors or suppliers in the event that the Contractor defaults on its responsibilities. The Contractor is to communicate this information to its partners, subcontractors and suppliers.

### **1.18 Proponents structured as a Joint Venture or Consortium**

A Proponent that has structured itself as a joint venture or a consortium shall in its Proposal:

- Identify a member of the Proponent that will be responsible for executing all documentation in response to this RFP on behalf of the Proponent; and
- Provide a statutory declaration duly authorized from each member that:
  - The member agrees to be jointly and severally liable for all obligations under the Contract; and
  - The member agrees to comply with, and be bound by, the terms and conditions of this RFP.

### **1.19 Legislative and Licensing Requirements**

All Proponents and Proposals must comply with any legislation and regulations, which may be applicable to the performance of the Contract, including the *Accessibility for Ontarians with Disabilities Act, 2005*, S.O. 2005, c. 11 (the "AODA").

### **1.20 Municipal Freedom of Information and Protection of Privacy Act**

In accordance with the *Municipal Freedom of Information and Protection of Privacy Act*, R.S.O. 1990, c. M.56 ("MFIPPA"), the personal information that is provided by Proponents in response to this RFP is being collected under the authority of the *Municipal Act, 2001*, S.O. 2001, c. 25 and will be used only for evaluation purposes under this RFP. All Proposals submitted will become the

property of the Region. Proponents are referred to the provisions of MFIPPA and in particular, Section 10 (Third party information) and Section 11 (Economic and other interests) of MFIPPA, regarding information (“**Protected Confidential Information**”) in their Proposal the disclosure of which could prejudice significantly their competitive position or economic interests, result in undue loss and/or could reasonably be expected to be injurious to their financial interests. Proponents are permitted to specifically identify any Protected Confidential Information in their Proposal. However, Proponents should not identify their Proposal, in its entirety, as comprising Protected Confidential Information. If Proponents have any questions in this regard, please consult the Region’s Information and Privacy Officer in the Office of the Regional Clerk at (905)-830-4444, ext. 71320.

### **1.21 Co-operative Purchasing**

**INTENTIONALLY DELETED.**

### **1.22 Collusion**

Proponents, by submitting their Proposal, declare that the Proposal is not made in connection with any other Proponent submitting an offer for the same services and is, in all respects, fair and without collusion or fraud.

### **1.23 Non-Exclusive**

Any Contract awarded as a result of this RFP will be non-exclusive. The Region may, in its sole discretion, purchase the same or similar services from other persons during the term of the Contract.

### **1.24 Performance Evaluation**

Proponents are advised that the Region may implement a Contractor Performance Evaluation System during the course of, or at the conclusion of, the Contract, for the purpose of monitoring and evaluating the performance of Contractors. Proponents agree to participate in, and provide any input or assistance as may be required by the Region in order to implement such an evaluation system.

### **1.25 Contract Terms and Conditions**

Proponents agree to be bound by the terms and conditions of the Contract that are set out in Schedule F (Contract Terms and Conditions), subject however to any amendments to which the Region agrees. Proponents should indicate in their Proposal any proposed amendment(s) to the Contract’s terms and conditions and provide the reason for the proposed amendment(s).



## **1.26 Insurance Requirements**

Schedule F.1 (Insurance) identifies the insurance requirements deemed necessary for the Contract by the Region's Insurance and Risk Manager. Proponents should review the requirements with their insurance provider to ensure each requirement can be met before submitting their Proposal. If there are any concerns or questions, Proponents are advised to contact the Purchasing Analyst before the Closing Time.

## **SECTION 2 - PROPOSAL SUBMISSION (FORMAT AND CONTENT)**

This Section 2 (Proposal Submission (Format and Content)) provides general instructions to Proponents pertaining to the format and content of their Proposal. These instructions are not to be interpreted so as to limit Proposals but rather they are intended to provide a framework for the Region to evaluate each Proposal and determine which Proposal most closely addresses the Region's needs.

Proposals are to be well-ordered, detailed and concise. Proposals are to use clear and unambiguous language, expressed in English. Proponents are requested to provide detailed technical/functional information that addresses the RFP requirements. General sales and promotional literature may not be considered.

Proposals should be submitted using a binder or similar cover and include a table of contents noting all requirements by section. Each section is to be tabbed, and presented in a logical order, generally following the format of this RFP. The Technical Proposal Form is to be included as the first page in the Technical Proposal (Envelope A). The Financial Proposal Form is to be included in the Financial Proposal (Envelope B).

The Region may award the Contract on the basis of Proposals submitted, without negotiations. Therefore, each Proposal should contain the Proponent's best terms/information, including all required documentation and information as listed in Schedule B (RFP Requirements).

Proponents should include the following information in their Proposal:

### **2.1 Technical Proposal (Envelope A)**

Proponents are to have the requisite experience, resources, qualifications and capacity to successfully meet the objectives of this RFP. Proponents are therefore requested to provide detailed information that clearly demonstrates the Proponent's and the proposed team's qualifications, experience and resources available to perform the Contract.

To demonstrate that the Proponent has the experience and qualifications to perform the Services, the Proposal should include:

- Proposed project schedule submitted (excel or word format)
- Qualifications, Experience and Staffing

- The Consultant must provide references of where they have successfully conducted a similar Single Family 3 (three) stream curbside audit or equivalent. To be considered equivalent the consultant must include similar collection and sorting scope of work. (See Schedule E -Qualification References).
- To ensure consistency during all audits, the Region requires that the Consultant provide one (1) Lead Auditor that will oversee all aspects of the audits during collection and sorting of all samples.
- The Lead Auditors must be experienced and can demonstrate they have completed Single Family curbside audits or comparable of similar size and scope.
- The Lead Auditor must have a minimum of five (5) years conducting waste audits.
- The Consultant must submit with their quote the name of the Lead Auditors along with proof that this person meets the requirements outlined in this document.
- The Proponent should provide a list of staff comprising of the audit team, including staff qualifications as related to Residential Curbside Single Family waste auditing and collection.
- Confirmation of the availability of key staff during the term of the Contract
- A methodology that describes the approach that would be employed by the Proponent in undertaking the Project as outlined in the Terms of Reference. The methodology need not be very detailed, but must contain enough information to indicate a sound understanding of the Region's needs and provide the evaluators with step by step procedures and a schedule of activities which indicate how it proposes to meet these needs.
- A specific timetable and work plan (in excel or word), including timelines for the completion of specific tasks, progress reports and identification of specific Regional staff required to participate during the performance of the Contract.
- A description of specific deliverables to address the items identified in Schedule B
- A minimum of three Qualification References, in the form included in Schedule E - Qualification References, preferably from the municipal sector. Qualification

References should be of recent projects (completed within the last 4 years) similar in scope, magnitude and complexity to the subject matter of this RFP.

To demonstrate that the Proponent has a comprehensive understanding of the RFP requirements the Proposal should include a description of specific deliverables to address the requirements identified in Schedule B (RFP Requirements).

## **2.2 Financial Proposal (Envelope B)**

The Financial Proposal in the form set forth in Schedule D (Financial Proposal Form (Envelope B)) must be completed by the Proponent and submitted in a separate envelope (Envelope B) from the Technical Proposal (Envelope A). The Contract Price submitted by the Proponent shall be all inclusive, including any mileage costs, disbursements, taxes (including duties and excise taxes), and any other costs to fulfill the Contract, but shall exclude HST.

If applicable, the Financial Proposal should set out any per diem rates for all proposed staff. The per diem rates will not be evaluated but rather will be used only if required should the Region, during the Contract, require that the Proponent perform additional services under the Contract.

## **SECTION 3 - PROPOSAL EVALUATION**

### **3.1 Evaluation Matrix**

The following criteria set out in the Evaluation Matrix below will be applied in the evaluation of Proposals and award of the Contract. The evaluation will be based on a total score of 100 points – 80 points allocated to the Technical Proposal and 20 points allocated to the Financial Proposal.

<b>EVALUATION MATRIX</b>			
<b>No.</b>	<b>Evaluation Category for Technical Proposal (Envelope A)</b>	<b>Assigned Points</b>	<b>Weighting (%)</b>
1.	Qualifications and Experience <ol style="list-style-type: none"> <li>1. Organization Chart of the Proponent</li> <li>2. A profile of the Proponent and years in business</li> <li>3. Experience and qualifications of the Proponent</li> <li>4. Experience and qualifications of key individuals assigned to the assignment</li> <li>5. Qualification references</li> </ol>		
2.	Understanding and Approach <ol style="list-style-type: none"> <li>1. Methodology in undertaking the Services</li> <li>2. Proposed timetable and work plan to deliver the Services</li> <li>3. Specific Deliverables to address the requirements identified in Schedule B (RFP Requirements)</li> </ol>		
3.	Interview (if applicable) <ol style="list-style-type: none"> <li>1. Methodology in undertaking the Services</li> <li>2. Proposed timetable and work plan to deliver the Services</li> <li>3. Specific Deliverables to address the requirements identified in Schedule B (RFP Requirements)</li> </ol>		
<b>TOTAL FOR TECHNICAL PROPOSAL</b>		<b>80</b>	
<b>No.</b>	<b>Financial Proposal (Envelope B)</b>	<b>Assigned Points</b>	<b>Weighting (%)</b>
1.	Total Contract Price	20	
<b>OVERALL SCORE</b>		<b>100</b>	

### 3.2 Evaluation Process

#### 3.2.1 Completeness Review of the Proposal (Step 1)

Step 1 of the evaluation process is the completeness review of the Proposal to confirm that the Proponent has submitted both the Technical Proposal (Envelope A) and the Financial Proposal (Envelope B) in accordance with the requirements set forth in Section 1.11 (Submission Process). The Technical Proposal will be opened to determine whether or not it is complete in accordance with the requirements in Section 2.1 (Technical



Proposal (Envelope A)). This Step 1 is not an evaluation step. It is intended to determine only that the Proposal is complete. The Financial Proposal will not be opened during this Step 1.

Any Proposal that is not complete in a material way, in the sole opinion of the Region, will be rejected by the Region. For greater clarity the Proposal must be complete, in a material way, in the sole opinion of the Region, in accordance with the requirements in Section 1.11 (Submission Process), Section 1.12 (Form of Proposal), and Section 1.13 (Pricing Information). Where the Proposal is incomplete, in a non-material way, in the sole opinion of the Region, the Region may seek clarification pursuant to Section 3.4 (Clarifications).

### **3.2.2 Evaluation of Technical Proposal (Step 2)**

Step 2 of the evaluation process is the evaluation of the Technical Proposal. The evaluation team will evaluate the Technical Proposal in accordance with the evaluation criteria set forth in the Evaluation Matrix set out in Section 3.1 (Evaluation Matrix) to determine whether, in the sole opinion of the Region, the Technical Proposal is materially consistent with and substantially addresses the form, content and requirements of a submission under this RFP.

Any Technical Proposal that, in the sole opinion of the Region, fails this evaluation may, at the sole discretion of the Region, lead the Region to:

- (a) Seek a clarification pursuant to Section 3.4 (Clarifications); or
- (b) Exclude the Proponent and its Technical Proposal from further or any evaluation under this RFP and having its Financial Proposal returned, unopened, to the Proponent.

Proponents must achieve a minimum score of 60% (48 points) out of the 80 points allocated to the Technical Proposal. If a Proponent does not achieve a score of XX points following evaluation of its Technical Proposal, its Proposal will be rejected and its Financial Proposal will be returned unopened.

### **3.2.3 Evaluation of Financial Proposal (Step 4)**

Provided that the Proponent's Technical Proposal has achieved a minimum score of 60% in both Steps 2 and 3 of Section 3.2 (Evaluation Process), the Region will open the Proponent's Financial Proposal (Envelope B).

### **3.2.4 Determining a Proposal's Overall Score (Step 5)**

The scores for the Technical Proposal, Interview (if applicable), and Financial Proposal of each Proponent will be combined to determine each Proponent's overall score, in accordance with the Evaluation Matrix set forth in Section 3.1 (Evaluation Matrix). If one

or more Proponents are within 5 points of the overall score, a dollar per technical point methodology will be applied to determine the highest scoring proponent, in accordance with the provisions of the Purchasing Bylaw.

### **3.3 Negotiations with Selected Proponent(s)**

The Region reserves the right to enter into discussions and/or negotiations with one or more Selected Proponents. If the Region and a Selected Proponent(s) cannot negotiate a Contract, the Region may terminate the negotiations and begin negotiations with the next Selected Proponent. This process may continue until a Contract has been executed or all Proponents have been rejected. No Proponent will have any rights or remedies against the Region arising from such negotiations.

### **3.4 Clarifications**

If the Region, in its sole opinion, considers any part of a Proposal to be incomplete, unclear, ambiguous as to meaning or intent, or to not comply with any requirement of this RFP, the Region may, in its sole discretion, at any time throughout the procurement process and for greater clarity, including throughout the evaluation process, require the Proponent to clarify its Proposal or submit additional information, within a specified time, so as to ensure that the Proposal is complete, clear and meets the RFP requirements.

Unless otherwise specified in such written request, any Proponent invited or requested to clarify its Proposal or submit additional information shall deliver to the Purchasing Analyst, via email or hard copy, in accordance with the written request, the requested clarifications, information or documentation, as the case may be, within the specified number of days provided in the written request from the Region.

The Region reserves the right to hold clarification meetings with some or all of the Proponents, including during the evaluation stage. The Region is under no obligation to request that a Proponent provide missing or deficient information.

Any such requested clarifications, information or documentation is to be read as though it formed a part of the Proposal at the Closing Time. Any previously submitted text, tables or drawings, that, in the Region's sole opinion, conflict with the clarifications or additional information and documentation may, at the sole discretion of the Region, be disregarded by the Region in the course of the evaluation.

### **3.5 Award of Contract**

The Region reserves the right to accept or reject the highest scoring, or any or all Proposals received, and the right to conduct a subsequent procurement process.

The award of the Contract is subject to the approval of Council or its authorized delegate and the availability of funds. No announcement concerning the award of the Contract will be made until the award is approved by the appropriate authority.

If required by the Region, following notification of award of the Contract, the Contractor will execute a formal contract with the Region incorporating the terms of this RFP, the Contract terms and conditions set out in Schedule F (Contract Terms and Conditions), the applicable portions of the Contractor's Proposal, and any other terms agreed upon following negotiation between the parties. The award of the Contract is conditional on the Contractor executing the Contract within thirty (30) days of notification of award, or such longer period as agreed to by the Region.

The Contractor's failure to execute the Contract within the agreed period, may, in the sole discretion of the Region, enable the Region to consider the Contract void, in which event the Region may enter into negotiations with another Selected Proponent.

## **SECTION 4 - LEGAL MATTERS AND DISCLAIMERS**

### **4.1 No Liability**

The Region does not, by issuing this RFP or by any communication or documentation made or provided in connection with this RFP, incur any duty of care or contractual obligation to any Proponent and expressly disclaims any liability or obligation to any Proponent in connection with this RFP. Information provided in this RFP is relied upon or acted upon by Proponents solely and exclusively at their own risk.

### **4.2 Amendment of Process**

The Region may, at any time before the Closing Time amend any aspect of this RFP, including without limitation, by amending and extending dates, schedules, or deadlines, or the limits and scope of the RFP requirements.

### **4.3 Rejection of Proposals**

The Region may, in its sole discretion, reject any Proposal that does not meet any or all of the requirements set out in this RFP.

### **4.4 Cancellation of Process**

The Region reserves the right, in its sole discretion, to cancel this RFP, to re-issue this RFP, to issue or implement any other procurement process for, or take any steps or actions to, procure the same or similar services at any time and from time to time.

#### **4.5 Non-Recourse**

The Proponent, by submitting a Proposal, agrees that it will not claim, in contract, tort, or otherwise, for any costs, expenses, compensation, damages, or anything whatsoever, in respect of this RFP process.

#### **4.6 Governing Law**

This RFP will be construed, and the contractual relationship between the Region and a Proponent, will be determined, in accordance with the laws of the Province of Ontario. The courts of the Province of Ontario shall have exclusive jurisdiction with respect to all matters relating to or arising out of this RFP.



**SCHEDULE A**  
**GLOSSARY OF DEFINED TERMS**

In this RFP,

**“Closing Time”** means the closing time for submissions of Proposals, as set out in Section 1.11 (Submission Process);

**“Confidential Information”** means all proprietary, confidential and non-publicly available information provided by or on behalf of the Region to the Contractor, whether in oral, written, graphic, schematic or electronic form;

**“Contract”** means the contract entered into between the Region and the Proponent who is awarded the Contract as a result of this RFP;

**“Contract Price”** means the amount payable by the Region to the Contractor under the Contract;

**“Contractor”** means the entity to whom a Contract is awarded as a result of this RFP;

**“may”** and **“should”** as used in this RFP denote permissive;

**“Proponent”** means any entity submitting a Proposal in response to this RFP;

**“Proposal”** means a proposal submitted in response to this RFP;

**“Region”** means The Regional Municipality of York as a municipal corporation and, where the context requires, its geographic area;

**“RFP”** means this request for proposal issued by the Region;

**“Selected Proponent(s)”** means a Proponent(s) whose Proposal has been selected by the Region for further consideration;

**“Services”** or **“Work”** means the provision of services as required by the Contract; and

**“shall”** and **“must”** as used in this RFP reflect a mandatory requirement.

**SCHEDULE B**  
**RFP REQUIREMENTS**

**Background**

York Region is an upper-tier municipality with more than 1.1 million people and 20,000-plus new residents annually. There are approximately 298,740 York Region single family residences and 41,398 apartment units. York Region's nine local municipalities include Town of Aurora, Town of East Gwillimbury, Town of Georgina, Township of King, City of Markham, Town of Newmarket, Town of Richmond Hill, City of Vaughan and Town of Whitchurch-Stouffville.

Currently more than 80% of York Region households participate in the Green Bin and Blue Box recycling program. York Region residents have made the Blue Box recycling program successful with one of the highest participation rates in the Greater Toronto Area. In 2013, York Region and our local municipal partners ranked first in diversion performance in Waste Diversion Ontario's (WDO) category of Large Urban Municipalities with our diversion rate of 59%. Success of these programs reflects positively on the Region and our local municipalities who implement many of the programs at the curb.

**Term of the Contract:**

The term of the Contract shall commence on a date to be determined between the Region and the Consultant, in or about November 2016 and shall expire on December 31, 2018. The scheduling of the audits during the term of the Contract are more specifically set out in this Schedule.

Provided the Region provides the Contractor with sixty (60) days' notice, the Region, at its sole discretion, shall have the option to renew the Contract for an additional term of two years (the "Renewal Term"), commencing on January 1, 2019 and expiring on December 31, 2020. During the Renewal Term, the Consultant shall conduct the audits commencing in January 2019 or as directed by the Region. The Renewal Term shall be on the same terms and except for the unit prices which shall be adjusted for the Renewal Term based on the unit prices for the 2018 calendar year and adjusted in accordance with the annual rate of change in Ontario's Consumer Price Index (CPI), for all items using the month of December as the adjustment month, not to exceed 2.5% for the Renewal Term.

### **Purpose, Objectives, Scope:**

The scope of services includes provision of all labour, supervision, supplies and materials required to coordinate and collect single family curbside samples across York Region's nine (9) local municipalities. The Consultant will be responsible for physically sorting, separating, and quantifying audit materials outlined in Appendix A.

The audits will be performed during various seasons (i.e., spring, summer, and fall, winter) to address any issues of seasonality. In 2016 and 2017, the audits will be performed in the fall (October) 2016 and the winter (January/February) 2017. In 2018, the audits will be performed in the winter, spring, summer and fall.

Each audit will include two samplings taken over two consecutive weeks (except in municipalities offering bi-weekly collection) to address issues of sporadic set out. The Region will determine the locations to be audited in consultation with the Consultant. Where a municipality provides bi-weekly waste collection, the Consultant shall take samples only for the week of the collection. Each audit sample will consist of 100 homes to achieve statistical significance. The same addresses will be sampled throughout the audit year.

### **Specifications for Waste Collection:**

- Each group of homes will be sampled twice in a two week period per seasonal audit.
- All recycling, residual waste (garbage) and source separated organics (green bin) set out by the sample households shall be collected by the Consultant (see below for information on yard waste, bulky waste and white goods).
  - Yard waste (Leaves, grass, trimmings, Christmas trees, pumpkins, etc.) set out as a separate stream will not be collected or weighted.
  - Bulky items such as furniture, mattresses and barbecues that are not accepted at the curb with regular household garbage should be left at the curb for the regular hauler.
  - White goods (large metal bases appliances such as refrigerators freezers, clothes washers, dishwashers etc.) will not be collected and weighed
- The Consultant will be required to provide staff and transportation to complete single family audits as specified below:
  - 10 sample areas ( 9local municipalities + 1) with a maximum of 10 homes each
  - 2 sample week per sample area
  - 3 stream audits ( green bin, blue box, and garbage)

- **NOTE:** there are no curbside set outs on Mondays in 8 of the 9 municipalities ( Newmarket, King, Whitchurch-Stouffville, Aurora, East Gwillimbury, Richmond Hill, Markham and Vaughan )
- Georgina curbside collection takes place from Monday to Thursday.

#### Responsibilities at the curb:

- The Consultant must collect samples in a vehicle that is clearly marked with the name of the auditing company.
- Waste collection cannot begin before the time specified by each municipality's waste collection by-laws (typically not before 7:00 a.m.) Contractor shall drive by the sample homes a second time at the end of the first run to look for and collect any late set outs. The intent is to make sure all waste set out is collected.
- The Consultant shall provide sufficient staff to ensure all set out is collected.
- The Consultant shall be responsible for any/all missed collections and shall work with the Region to schedule additional dates to collect missed locations, any costs incurred as a result will be borne entirely by the Consultant.
- The Consultant is to notify the Regional representative immediately if any problems are encountered during collection, particularly if waste set out is collected by the curbside collection haulers or concerns with waste set out.
- The Consultant's Lead Auditor must have a cell phone for all field work, which includes curbside collection.

#### Audit Procedure:

- Collection and auditing of all samples should be performed by the Consultant
- The Consultant will be required to provide photos with examples of collection procedures and at least two representative photos for each material type as listed in the audit categories per seasonal audit.
- The Consultant should note observations and characteristics of each sample block (housing types etc.).
- Weather conditions should be documented on the Waste Audit Collection Log.
- The Consultant shall note if the material at the curb (particularly blue box materials) is wet or dry and whether they believe participation could have been hampered due to inclement weather.
- The Consultant will collect and sort a maximum of 20 or 30 households per day. No more than 60 households can be collected from any given day.
- There will be no changes in Lead Auditing staff for each of the two (2) week audit durations, unless otherwise approved by York Region.
- The Consultant must train their staff prior to the audit start date and have their staff sign a waiver stating that they have been trained on the audit categories and Stewardship Ontario waste audit procedures. This document must be provided to the Region prior to audit start state.
- The Consultant must provide sufficient staff to complete the audits within the timeline stated within this RFP.



Waste Sort Requirements:

- Garbage, blue box and green bin materials must be sorted into the constituent materials listed on the table titled “Waste Audit Categories and Description”
- The Contractor must separate organic materials from their packaging before weighing. All packaged material must be vigorously shaken to remove contents.
- The waste sorters will have access to the York Region’s Waste Management Centre from 7am to 7:30pm to complete sorting.
- The Region will remove waste after sorting and weighing is completed. The Consultant is required to provide work tables for sorting.
- The consultant will be responsible for advising the Regional representative and site staff when sorting is completed.

Audit Site and Equipment:

- The audit space will be separated from the tip floor by concrete bunkers and/or temporary fencing.
- The sort area is not climate controlled but is indoors. Audit staff must ensure they dress for the conditions.
- The Consultant must supply an electronic scale that will measure accurately and capable of weighing container and product at the same time, with a tolerance of (+ or - 0.01 kg).
- The Consultant must supply all tables, knives and hand cultivators etc. to open and handle all bags or items.
- The Consultant must supply all plastic tote containers to segregate the audit material.
- The Consultant must supply all safety gear for staff necessary to complete the audit recognizing that waste streams may be contaminated with materials not solicited in the source separated organic program. Safety equipment includes but is not limited to: appropriate filter masks, puncture resistant gloves, safety glasses or face shields, protective coveralls, safety boots, hard hats, **hearing protection etc.**
- Any costs or delays incurred as a result of a lack of proper equipment will be borne entirely by the Consultant.

**Collection Municipalities: Specific routes will be determined with the successful consultant.**

Municipality	Collection day	Stream
Georgina	Tuesdays	<ul style="list-style-type: none"> <li>• Collection of blue box and green bin occurs every week</li> <li>• Garbage collected every other week</li> </ul>
East Gwillimbury	Tuesdays	<ul style="list-style-type: none"> <li>• Collection of blue box and green bin occurs every week</li> <li>• Garbage collected every other week</li> </ul>
Whitchurch/Stouffville	Tuesdays	<ul style="list-style-type: none"> <li>• Collection of blue box and green bin occurs every week</li> <li>• Garbage collected every other week</li> </ul>
Markham	Wednesdays	<ul style="list-style-type: none"> <li>• Collection of blue box and green bin</li> </ul>

		occurs every week • Garbage collected every other week
Markham	Wednesdays	• Collection of blue box and green bin occurs every week • Garbage collected every other week
Richmond Hill	Wednesdays	• Collection of blue box and green bin occurs every week • Garbage collected every other week
Newmarket	Thursday	• Collection of blue box and green bin occurs every week • Garbage collected every other week
Vaughan	Thursdays	• Collection of blue box and green bin occurs every week • Garbage collected every other week
Aurora	Friday	• Collection of blue box and green bin occurs every week • Garbage collected every other week
King	Friday	• Collection of blue box and green bin occurs every week • Garbage collected every other week

## Reporting

- The Consultant will be required to submit audit data 1 week after each completed season for initial review and approval prior to payment for services rendered.
- Final report 1 week after receiving draft edits from York Region for review and approval prior to payment for services rendered. Payments will be issued each season for work completed with the exception. See section '*Timeframes and Deliverables*' for complete submission schedule.

Each interim data sheet will include the following:

- All data excel sheet submitted to the Region must list the names of the Contractor's staff that conducted the audits
- Electronic data is to be provided to the Region within one (1) week of completing the audits
- Results reported per municipality for each season
- Composition of all waste streams expressed in terms of the weights of its constituent material types, reported as kilograms and percentages of material per municipality
- Values are to be recorded for each material category including zeros where specific materials were not observed.
- A single combined value (i.e. for all materials that are not included in the individual material categories) must be included to account for the total weight of the audit sample.

The Annual Audit Report will include:

- All reports submitted to the Region must list staff names of the Contractor's staff members that conducted the audit
- The scope and objectives of the audits
- A written summary of the procedure followed
- All raw data in Excel spreadsheet format
- Seasonal trends that include fluctuations from previous year's data
- Summary composition results chart that includes all nine (9) local municipalities (program material vs. non- program material total %)
- Evaluation of the statistical significance of the audit results and observations
- Count of compostable versus plastic liner bags in the sample
- the Region total percentage of unacceptable materials present in both the blue box and source separated organics programs (the Region to provide total annual tonnage data)
- Potential for waste reduction, reuse or recycling program improvements based on residual waste (garbage) audits
- Combined summary results of total % of recyclables, green bin, garbage for each season per municipality
- Generation rate for blue box, source separated organics and garbage streams in kilograms per household per year (kg/hh/yr) for the single family source
- Composition of all waste streams expressed in terms of the weights of its constituent material types, reported as kilograms and percentages of material per household per municipality
- Analysis of audit data for source separated organics program including percentage of wasted food and unavoidable food waste found in the green bin and generation rate of wasted food in kilograms per household per year
- Identify the number and types of containers, and miscellaneous items, set out at curbside for collection by each household involved in the single family audit for garbage, source separated organics and blue box
- Generation rate for blue box, source separated organics and garbage streams in kilograms per household per year (kg/hh/yr) for the single family source
- Composition of all waste streams expressed in terms of the weights of its constituent material types per Appendix A, reported as kilograms and percentage of material per household per year for the single family source
- Identification of trends in audit results, including compostable bag and bag count data (the Region to provide historical audit data to assist with trending analysis)
- Conclusions and recommendations

### **Timeframes and Deliverables**

The Region reserves the right to change each audit month with reasonable notice to the proponent. Two two-week long audits (i.e., a total of six sample sets) will be done in each municipality, one in fall 2016 and winter 2017. Four two week long audits (i.e., a total of eight sample sets) one in winter, spring, summer and fall 2018. Each two---week long audit will be done in each of the following time periods:

<b>2016/2017 (Year One)</b>	<b>Fall 2016 – October to November</b>
	Winter 2017– January to February
<b>2018 ( Year Two)</b>	Winter – January to March
	Spring – April to June
	Summer – July to September
	Fall – October to November

The Consultant should be prepared to meet via teleconference and in- person with Regional staff. Teleconference can be arranged, by either party, as required. In-person meetings will be arranged by Regional staff.

**Collection Schedule – September 19, 2016**

- Consultant to provide a sample collection schedule to York Region staff two weeks prior to start of the audit

**Project Team Meeting – kick-off- October 2016**

- To confirm scope of work , review work plan , timelines and deliverables 3 days after contract has been awarded
- Consultant to contact Regional staff at least two weeks in advance of the proposed audit date to review the required work, curbside collection logistics, MRF operations and safety considerations

**Seasonal Data Submission**

- Consultant to present data analysis to Regional staff 1 week after each completed season

**Final Report Submission:**

Year One 2016/2017 Draft report – Shall be submitted one week following the last completed seasonal audit

Year One 2016/2017 Final Report – Shall be submitted one week after receiving edits from the Region

Year Two 2018 Draft report – Shall be submitted one week following the last completed seasonal audit

Year Two 2018 Final Report – Shall be submitted one week after receiving edits from the Region







**SCHEDULE D**  
**FINANCIAL PROPOSAL FORM (ENVELOPE B)**

This form is to be completed and included in the Financial Proposal Envelope (Envelope B). All figures are to be submitted in Canadian Dollars and shall be exclusive of HST.

**Proponent's Legal Name:** \_\_\_\_\_

The Contract Price is set forth below in the Table below along with, if applicable, a description of the terms and corresponding prices that constitute the Contract Price.

**Table of Items and Corresponding Prices**

ITEM	DESCRIPTION	AMOUNT
1.		
2.		
3.		
4.		
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6.		
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8.		
9.		
10.		
11.		
12.		
cont...		
<b>CONTRACT PRICE (excluding HST)</b>		



**SCHEDULE F**  
**CONTRACT TERMS AND CONDITIONS**

**SECTION 1 - CONTRACTOR'S RESPONSIBILITIES**

**1.1** The Contractor agrees to supply, at its sole cost and expense, all staff, equipment and technical assistance necessary to perform the Services. The Contractor shall not change or replace any of the key individuals assigned to perform the Services without the prior written approval of the Region.

**1.2** The Contractor shall perform the Services with the requisite degree of skill and competence in accordance with the standard of care normally exercised by professionals providing services of this complexity and magnitude. The Contractor shall employ only skilled and competent staff who will be under the supervision of a senior member of the Contractor's staff to perform the Services.

**1.3** The Contractor agrees to meet with Regional staff during the Term from time to time as required by the Region, if necessary, to discuss issues related to the provision of Services.

**SECTION 2 - HEALTH AND SAFETY/ENVIRONMENTAL REQUIREMENTS**

**2.1** The Contractor acknowledges that it is aware of the provisions of the *Occupational Health and Safety Act*, the *Environmental Protection Act*, the *Ontario Water Resources Act*, the *Safe Drinking Water Act, 2002*, the *Fisheries Act (Canada)*, the *Lakes and Rivers Improvement Act*, the *Public Lands Act*, the *Conversation Authorities Act*, the *Environmental Assessment Act*, the *Migratory Birds Convention Act, 1994*, the *Greenbelt Act, 2005*, the *Oak Ridges Moraine Conservation Act, 2001*, the *Species at Risk Act* (collectively, the "**Statutes**") and any other applicable statutes, regulations, policies and guidelines thereunder and agrees to comply with, and cause to be complied with, the provisions thereof as such statutes, regulations, policies and guidelines may be amended or replaced from time to time including, without limiting the generality of the foregoing, all of its obligations under the *Occupational Health and Safety Act* and regulations, as applicable, in respect of the Services.

**2.2** The Contractor shall do, shall cause to be done, shall refrain from doing, and/or shall prohibit from being done, any act or thing as directed by the Region if, at any time, the Region considers that any situation or condition is unsafe, damaging to the environment, harmful to the public, or contrary to the provisions of the Statutes or any other applicable statutes, regulations, policies or guidelines.

## SECTION 3 - FEES AND DISBURSEMENTS

**3.1** The Region shall pay to the Contractor as full payment and compensation for the Services an amount not to exceed the Contract Price, including all disbursements but excluding the HST. No payment in excess of the Contract Price shall be made without the prior written authorization of the Region.

**3.2** During the Term of the Contract and any subsequent extensions or renewals, the prices quoted by the Contractor in the Contract are not subject to change without the prior written consent of the Region. The Contractor shall not be entitled to any increases above the Contract Price or to the prices for any of the individual items, milestones or phases for any reason whatsoever, including, but not limited to, increases in prices due to inflation or due to the escalation of labour or material costs.

**3.3** When not in default of its obligations under the Contract, and subject to Section 3.1, the Region shall pay the Contractor based upon the payment schedule (the "**Payment Schedule**") set forth in the Contract.

**3.4** The Contractor shall submit invoices and any other documentation requested by the Region, acting reasonably, to receive payment for Services rendered, in accordance with the Payment Schedule.

**3.5** Provided the Region does not dispute the invoice submitted by the Contractor and provided that the Region receives the documentation described in Section 3.4, the Region shall pay each invoice within sixty (60) days of receipt. The Region will return any invoice that does not include the appropriate HST and the Contractor's HST Registration Number. The Region shall pay the invoice electronically through the Region's Electronic Funds Transfer ("**EFT**") System into the Contractor's designated bank account.

**3.6** The Region agrees to pay the HST for the Services performed under the Contract. No other taxes shall be payable to the Contractor under the Contract.

**3.7** The Contractor shall not be entitled to claim, demand or receive any interest upon any payments on account of delay in approval or payment by the Region.

## SECTION 4 - RECORDS AND AUDIT

**4.1** The Region shall have the right to audit all books and records (in whatever form they may be kept) relating or pertaining to the Contract (including any and all documents and other materials, in whatever form they may be kept, which support or underlie those books and records), kept by or under the control of the Contractor, including, but not limited to those kept by the Contractor, its employees, agents, assigns, successors and subcontractors. The Contractor shall maintain and preserve all original books and records, together with such supporting or underlying



documents and materials, for the Term of the Contract and for at least two (2) years following the completion of the Contract, including any and all renewals.

**4.2** The books and records, together with the supporting or underlying documents and materials shall be made available, upon request, to the Region, through its employees, agents, representatives, contractors or other designees, during normal business hours at the Contractor's office or place of business.

**4.3** Sections 4.1 and 4.2 shall not be construed to limit, revoke, or abridge any other rights, powers, or obligations relating to audit which the Region may have by Federal, Provincial, or municipal statute, regulation, or agreement, whether those rights, powers, or obligations are express or implied.

## **SECTION 5 - REGION CAN MONITOR SERVICES**

**5.1** Although the provision of the Services is the sole responsibility of the Contractor, the Region reserves the right to monitor the performance of the Contractor and to issue directives to the Contractor to remedy any condition which the Region considers to be detrimental to provision of the Services. The Contractor shall be required to carry out the terms of such directives within five (5) business days after receipt of notice in writing from the Region or within a mutually agreeable timeframe.

## **SECTION 6 - CHANGES AND ALTERATIONS AND ADDITIONAL SERVICES**

**6.1** The Region may, at any time, during the Term, delete, extend, increase, vary or otherwise alter the Services and, if such action by the Region necessitates an increase or decrease in the level of staff or services, the Contractor shall, if requested by the Region, submit a revised work plan or schedule and fee proposal for the revised scope of Work. The Contractor shall be paid in accordance with Section 3 for such additional services.

**6.2** The Contractor shall not amend or deviate from the scope of Services without the prior written consent of the Region. The Region has no obligation to pay for additional services if the Contractor, without the Region's prior written consent, provides additional services.

## **SECTION 7 - SCHEDULE FOR DELIVERING THE SERVICES**

**7.1** Upon request from the Region, the Contractor shall provide for approval by the Region, a schedule showing the estimated dates for delivery of the Services.

**7.2** The Contractor shall complete the Services, to the satisfaction of the Region, during the Term and in accordance with the schedule approved by the Region.

**7.3** The Contractor shall require prior written approval from the Region for any of the following changes:

- (a) Any increase to the Contract Price; or
- (b) Any material change in the proposed schedule for delivery of the Services.

## **SECTION 8 - SUBCONTRACTORS**

**8.1** The Contractor agrees to:

- (a) Enter into contracts or written agreements with its subcontractors to require them to perform their services in accordance with and subject to the terms and conditions of the Contract; and
- (b) Be liable to the Region for acts and omissions of its subcontractors and of persons directly or indirectly employed by them.

The Contractor agrees to incorporate the terms and conditions of the Contract into all of its agreements with subcontractors.

**8.2** The Contractor agrees to employ only those subcontractors proposed by the Proposal.

**8.3** If the Contractor requires a change of a subcontractor or an additional subcontractor, the Contractor shall obtain the prior written approval of the Region which approval may be unreasonably withheld. The Contractor shall not be entitled to receive additional compensation due to a change in, or addition of, a subcontractor.

**8.4** Nothing contained in the Contract shall create a contractual relationship between a subcontractor and the Region.

## **SECTION 9 - DAMAGES**

**9.1** If the Region should suffer damage or incur costs in any manner because of any wrongful act or neglect of the Contractor or of anyone for whom the Contractor is responsible in law, then the Region shall be reimbursed by the Contractor for such damage.

## **SECTION 10 - ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT COMPLIANCE**

**10.1** The Contractor shall ensure that all of its employees, agents, volunteers, or others engaged by the Contractor in the delivery of Services receive training in accordance with Section 6 of Ontario Regulation 429/07 made under the AODA. Accordingly, the Contractor agrees to:

- (a) Comply with the requirements of the AODA; and

- (b) Complete and submit to the Region the AODA Training Certificate at the time of execution of the Contract or as periodically required by the Region from time to time.

## **SECTION 11 - SUSPENSION OR TERMINATION**

**11.1** The Region may, at any time by notice in writing to the Contractor, suspend or terminate the Services, or any portion thereof, at any time during the Term, upon giving at least five (5) days' written notice to the Contractor. The Contractor shall perform no further Services and shall not be entitled to any payment for additional Services beyond that date nor shall the Contractor be entitled to lost profits or any consequential damages as a result of termination.

**11.2** The Region shall pay all reasonable costs incurred by the Contractor up to the date of termination, less any excess costs incurred by the Region in re-procuring and completing the Services where the termination is for cause. However, in no event shall the Contractor be paid for any amount that exceeds the Contract Price. The Contractor will not be entitled to, or reimbursed for any profits which may have been anticipated but which have not been earned up to the date of termination.

**11.3** If the Contractor should become bankrupt or insolvent or makes a general assignment for the benefit of creditors because of its insolvency, or if a receiver is appointed because of its insolvency, or if the Contractor transfers, assigns or otherwise disposes of its interest in the Contract or any part thereof without the prior written authority of the Region, or if the Contractor is part of an amalgamation so as to result in a change of ownership, or if the Contractor is practising as an individual and dies before the Services have been completed (collectively, the "Triggering Event"), the Contract shall terminate as of the date of the Triggering Event and the Region shall pay for the Services rendered and disbursements incurred by the Contractor to the date of such termination.

**11.4** Upon termination of the Contract, the Contractor shall deliver to the Region within fifteen (15) days of the date of termination, all documentation, records, and Work product, whether in paper or electronic form, relating to the Work or Services. The Region shall have sole title to such documentation.

**11.5** The Contractor shall not be entitled to payment upon termination until it has complied with the provisions contained in Section 11.4.

**11.6** The Contractor's obligations under the Contract with respect to Services provided up to and including the date of termination shall survive termination of the Contract.

## **SECTION 12 - RIGHT OF SET-OFF AND HOLDBACKS**

**12.1** In the event that any portion of the Services is not performed in accordance with the Contract or is not satisfactory to the Region, in its sole opinion, the Region may retain, as a holdback, an amount equal to the Region's estimate of the cost that will be incurred to perform the Services in a satisfactory manner until the Services have been completed to the satisfaction of the Region.

## **SECTION 13 - CONFLICTS OF INTEREST**

**13.1** During the Term, the Contractor shall not accept any work or assignment, which may create, either directly or indirectly, a conflict of interest in carrying out its duties and obligations under the Contract.

## **SECTION 14 - APPROVAL BY OTHER AUTHORITIES**

**14.1** Unless otherwise provided in the Contract, where the Work of the Contractor is subject to the approval or review of an authority, department, government or agency other than the Region, such applications for approval or review and the obtaining of such approvals shall be the responsibility of the Contractor, but shall be submitted through the offices of the Region and, unless authorized by the Region in writing, such applications for approval or review shall not be obtained through direct contact between the Contractor and any other authority, department, government or agency.

## **SECTION 15 - INDEMNIFICATION**

**15.1** The Contractor shall indemnify and hold harmless the Region, its Chair, Council members, officers, agents and employees from and against all actions, claims, demands, losses, costs, damages, suits or proceedings whatsoever which may be brought against or made upon the Region and against all losses, liabilities, judgments, claims, suits, demands or expenses which the Region may sustain, suffer or be put to resulting from or arising out of the Contractor's failure to exercise reasonable care, skill or diligence or from any omission in the performance of the Contract. This indemnification shall include any legal costs incurred by the Region on a substantial indemnity basis, including those incurred to defend any criminal prosecutions against the Region resulting from the actions of the Contractor.

## **SECTION 16 - INSURANCE**

**16.1** The Contractor shall obtain, maintain, pay for and provide evidence of the insurance coverages identified in Schedule F.1 (Insurance).

## **SECTION 17 - WORKPLACE SAFETY AND INSURANCE BOARD**

**17.1** The Contractor must be in compliance with the Workplace Safety and Insurance Board (“**WSIB**”) throughout the Contract and shall submit to the Region a valid and current WSIB Clearance Certificate prior to commencement of the Contract and at any other time during the Contract at the Region’s request.

**17.2** Where the Contractor is not required to be registered with the WSIB and is not covered by WSIB Optional Insurance, the Contractor shall maintain Employers Liability Insurance in the amount of two million dollars (\$2,000,000.00) per occurrence. Evidence of this coverage shall be included on the Region’s standard Certificate of Insurance form.

**17.3** If the Contractor is a sole proprietor, partnership or other legal entity with no employees, the Region, at its sole discretion, may accept a signed Waiver in lieu of the above requirements.

## **SECTION 18 - TIME OF THE ESSENCE**

**18.1** Time shall be of the essence in the Contract.

## **SECTION 19 - PUBLICATION**

**19.1** The Contractor shall not, without the prior written consent of the Region, publish, or issue to any third party, any information or communication regarding the Services.

## **SECTION 20 - CONFIDENTIAL INFORMATION**

**20.1** The Contractor shall not, at any time before, during or after completion of the Services divulge, in whole or in part, any Confidential Information, communicated to or acquired by it, or disclosed by the Region in the course of carrying out the Services. The Contractor shall not use the Confidential Information for a purpose other than the delivery of the Services, without the Region’s prior written approval.

**20.2** The Region retains sole title of all Confidential Information.

**20.3** The Contractor shall use all reasonable efforts to protect the Confidential Information.

**20.4** The obligations of the Contractor respecting disclosure and use of Confidential Information shall survive expiration, suspension or termination of the Contract.

## **SECTION 21 - ASSIGNMENT**

**21.1** The Contractor shall not assign, in whole or in part, the Contract, without the prior written approval of the Region, which approval may be granted on such terms that the Region, in its sole



opinion, deems advisable. The Region's consent to any assignment or subcontract shall, in no way, release the Contractor from its duties and obligations under the Contract.

## **SECTION 22 - INTELLECTUAL PROPERTY RIGHTS**

**22.1** All intellectual property arising from or in respect of the Services shall be and remain the property of the Contractor. The Contractor shall grant to the Region a non-exclusive, perpetual, royalty-free licence to use any such intellectual property. The Contractor shall cause its employees to waive the moral rights to any such intellectual property.

## **SECTION 23 - COMPLETE CONTRACT**

**23.1** The Contract constitutes the complete and exclusive statement of the agreement between the parties, which supersedes all proposals, oral or written, and all other communications between the parties, relating to the subject matter of the Contract, except as referenced in, and made part of, the Contract, particularly the RFP and the Proposal. In the event of a conflict between the Contract and the RFP and the Proposal, the terms of the Contract shall prevail over the RFP and the Proposal and the terms of the RFP shall prevail over the Proposal.

**23.2** The Contract may be modified only by a written amendment signed and sealed by authorized representatives of both parties.

## **SECTION 24 - GOVERNING LAW**

**24.1** The Contract shall be governed by, and construed in accordance with, the laws of the Province of Ontario.

## **SCHEDULE F.1**

### **INSURANCE**

Without restricting the generality of the requirement to indemnify the Region, the Contractor shall obtain, maintain, pay for and provide evidence of insurance coverage, taken out with insurance companies licensed to transact business in the Province of Ontario and acceptable to the Region's Insurance and Risk Manager. Listed below are the insurance requirements deemed necessary for the Contract by the Region's Insurance and Risk Manager.

#### **Commercial General Liability Insurance**

Commercial General Liability (“**CGL**”) insurance must include the Region as an Additional Insured, with limits of not less than five million dollars (\$5,000,000.00) inclusive per occurrence for bodily and personal injury, death and damage to property including loss of use. The CGL insurance will include Cross Liability and Severability of Interest Clauses, Owner's and Contractor's Protective, Products and Completed Operations coverage (twelve (12) months) and Standard Non-Owned Automobile endorsement including standard contractual liability coverage.

#### **Automobile Liability Insurance**

Automobile Liability Insurance in respect of licensed vehicles must have limits of not less than two million dollars (\$2,000,000.00) inclusive per occurrence for bodily injury, death and damage to property. Coverage shall be in the form of a standard owner's form automobile policy providing third party liability and accident benefits insurance and covering licensed vehicles owned and/or leased or operated by or on behalf of the Contractor.

The Region will accept in place of the above-mentioned insurance coverage, a combination of primary liability limits and umbrella insurance or excess liability limits which meet the CGL, General Aggregate and/or Automobile Liability coverage limits noted above.

Such coverage must in all respects be satisfactory to the Region's Insurance and Risk Manager and shall be maintained continuously by the Contractor from either the commencement of the Services or the signing of the Contract, whichever is earliest. The policies must be endorsed to provide the Region with not less than thirty (30) days' written notice in advance of cancellation, or any change or amendment restricting coverage.

All of the above insurance must be evidenced, by the Contractor only upon Contract award, on the Region's standard Certificate of Insurance form.

Appendix A: Waste Audit Categories and Description

Material Category	Notes
<b>1. PAPER</b>	
Newspaper	Daily and weekly newspapers published by the Canadian Newspaper Association (CNA) and the Ontario Community Newspapers Association (OCNA); Globe and Mail, Toronto Star, Hamilton Spectator, community newspapers. Consult Stewardship Ontario's list of OCNA/CNA publications. No inserts, flyers and magazines from newspapers.
Telephone Books / Directories	Telephone books and other directories such as the Yellow Pages
Magazines & Catalogues	Glossy magazines, catalogues, calendars, annual reports (must be bound, i.e. stapled or glued).
Mixed Fine Paper	Fine household papers, writing paper, office paper, copy paper, bills and statements, ad mail, etc. Includes glossy flyers and advertising that are not distributed with newspapers.

<b>Total Paper</b>	
<b>2. PAPER PACKAGING</b>	
Corrugated Wine Bag in Box	Corrugated box from bag in box wine containers. No plastic liners.
Other Corrugated	Includes micro-flute corrugated containers, pizza boxes, waxed corrugated containers, etc.
<b>Corrugated Total</b>	
<b>Kraft Paper</b>	Kraft paper bags and wrap, grocery or retail bags, potato bags, some pet food bags, etc. Includes brown, white, and coloured Kraft paper and bags. No bags with bonded plastic or foil liners/layers/coatings. Includes bags with a light grease coating.
Boxboard / Cores	Boxboard, paperboard, cereal box, shoe box, frozen food box, cores from toilet paper/ toweling/gift wrap, etc. Includes wet-strength boxboard, fast food cartons such as fry/onion ring boxes and paper plates
Molded Pulp	Egg cartons, drink trays, other trays, molded pulp flower pots/trays, etc.
Hot Beverage Paper Cups & Ice-Cream Containers	Includes paper based cups with a plastic lining/layer such as coffee cups, soup cups, french-fry cups. Does not include containers that are plastic or plastic based.
Composite Cans	Spiral wound cans with paper walls and plastic or metal tops or bottoms; frozen juice, Pringles, raisins, etc.
Gable Top Cartons	Polycoat containers with a gable shaped top; milk, juice, some foods, etc.
Aseptic Alcohol Containers	Tetra pak type polycoat packaging for alcoholic beverages
Aseptic Other Containers	Tetra pak type polycoat packaging, juice boxes, soup, etc.
<b>Aseptic Containers Total</b>	
<b>Total Paper Packaging</b>	
<b>3. PLASTICS</b>	
PET Alcohol Bottles	#1 clear and coloured alcohol bottles.
PET Other Beverage Bottles	#1 soft drink, water, juice, etc.
<b>PET Beverage Bottles Total</b>	
<b>PET Other Bottles &amp; Jars</b>	#1 food and non-beverage bottles and jars, cooking oil, peanut butter, dish soap, etc.
PET Food Packaging	#1, bakery, clamshells, trays, microwaveable trays, egg cartons. No bottles and jars
HDPE Beverage Bottles	#2 beverage bottles and jugs, juice, milk, etc.
HDPE Other Bottles & Jugs	#2, laundry soap, shampoo, windshield washer fluid, etc.
PVC Bottles & Jars	#3 bottles and jars only, lotions, soaps, bug repellants, shampoos, etc (PVC blister/bubble packs go into "Other Rigid Plastic Packaging")
Polystyrene Rigid Food Packaging	#6 PS, trays, clamshells, cups & lids, pill and vitamin bottles, seedling trays, PS used to protect boxed product, etc. Non-packaging PS (e.g. plastic cutlery) goes into the "Durable Plastic Products" category
Other Plastic Alcohol Containers	Other plastic alcoholic containers.
Other Bottles, Jars & Jugs	#4 LDPE, #5 PP, #7 mixed resin, mustard, ketchup, some juices

<b>Other Plastic Containers Total</b>	
Wide Mouth Tubs & Lids	# 2 HDPE, #4 LDPE & #5 PP tubs and lids, dairy products, etc.
Large HDPE & PP Pails & Lids	>4litres and < 25 litres HDPE & PP pails, lawn, garden, pool supplies, kitty litter, paint, etc.
<b>Total Plastics</b>	
<b>4. METALS</b>	
Aluminum Alcoholic Beverage Cans	Aluminum alcoholic beverages, beer cans.
Aluminum Food & Other Beverage Cans	Soft drinks, soda, juice, certain brands of sardines and cat food
<b>Total Aluminum Food &amp; Beverage Cans</b>	
Aluminum Foil & Foil Trays	Aluminum foil wrap, pie plates, baking trays, etc.
Other Aluminum Containers	Aluminum aerosol containers, hair products, etc.
Steel Alcoholic Beverage Cans	Steel alcoholic beverages, beer cans, Sapporo, etc.
Steel Food & Other Beverage Cans	Apple juice, soup, beans, peaches, etc. No alcohol containers.
<b>Total Steel Food &amp; Beverage Cans</b>	
Steel Aerosol Cans	Empty spray paint cans, cooking oil, whipped cream, etc.
Steel Paint Cans	Empty paint cans. No steel aerosol paint cans.
<b>Total Metals</b>	
<b>5. GLASS</b>	
Clear Alcoholic Beverage Glass	Clear alcoholic beverage glass containers.
Coloured Alcoholic Beverage Glass	Coloured alcoholic beverage glass containers.
Clear Glass Other Beverage and Food	Coloured glass food and other beverage containers, all sizes
Coloured Glass Other Beverage and Food	Coloured glass food and other beverage containers, all sizes
<b>Total Glass</b>	
<b>6. ORGANICS</b>	
Unavoidable Food Waste	Vegetable and fruit peelings, meats, fish, fats, oils, bones, etc.
Yard Waste	Brush, branches, wood chips, soil, plant material, ashes
Grass Clippings	Small amounts of grass & leaves
Small Wood Waste	Wood cutlery, stir sticks, toothpicks, pieces of wood less than 2 ft. (no lumber)
Pet Waste	Animal feces, bedding, kitty litter
Diapers & Sanitary	Diapers, sanitary napkins, hygiene products, etc.
Certified Compostable Plastic Bin Liners	Biodegradable Products Institute (BPI) certified compostable plastic green bin/kitchen container liners
Tissue/Towelling	Tissues, napkins, paper towels (includes wet/damp items)
Shredded Paper	Small amounts of shredded paper
Other Compostable Paper	Biodegradable Products (BPI) certified compostable plastic green bin/kitchen catcher liners
<b>Total Organics</b>	



<b>7. WASTED FOOD</b>	
Leftover Bakery	Bread slice, crusts, cake, muffin etc.
Leftover Meat & Fish	Pork chop, ham slice salmon steak etc.
Leftover Dried Food	Breakfast cereal, pasta shells, rice etc.
Leftover Fruits & Vegetables	potatoes, whole carrots, turnip, pumpkin, apples, oranges etc.
Leftover Other	Food that does not fit into the above categories
Untouched Bakery	Bread slice, crusts, cake, muffin etc.
Untouched Meat & Fish	Pork chop, ham slice salmon steak etc.
Untouched Dried Food	Breakfast cereal, pasta shells, rice etc.
Untouched Fruits & Vegetables	potatoes, whole carrots, turnip, pumpkin, apples, oranges etc.
Untouched Other	Food that does not fit into the above categories
<b>Total Wasted Food</b>	
<b>8. HOUSEHOLD SPECIAL WASTE</b>	
Batteries	All types
Paint & Stain	Cans / tubs still containing product, oil and latex paint, wood stain, varnish, etc.
Motor Oil	Oil filters and jugs or cans still containing oil
Other HSW liquids	Solvents, antifreeze, acids, pool chemicals, weed killer, gasoline, brake fluid, glues, adhesives, cleaners, nail polish remover, etc. Look for signal words such as "Poison", "Danger", "Warning", "Caution", and "Precautionary Statements".
Other HSW	Sharps, drug products, medicine, medical waste, fluorescent tubes, ionized smoke detectors, etc. Look for signal words such as "Poison", "Danger", "Warning", "Caution", and "Precautionary Statements".
<b>Total HSW</b>	
<b>9. WASTE ELECTRICAL &amp; ELECTRONIC EQUIPMENT</b>	
Computer Monitors	Display and computers monitors etc.
Computer Components	Computer towers, laptops and modems etc.
Computer Peripheral Devices	Mouse, keyboards, expansion cards, etc.
Audio/Video Equipment	VCRs, DVD players etc.
Telecom Equipment	radios, stereos and speakers etc.
Other Electronics	Cameras etc.
<b>Total WEEE</b>	
<b>10. REUSABLE MATERIALS</b>	
Textiles	Clothing, shoes, mats, drapes, sheets, etc. in good condition
Shoes	Clean, without rips or tears
Durable Plastic Items	Plastics bins/containers in good condition
Decorations	Whole figurines, lamps, artifacts etc.
Furniture	Shelves, tables, chairs, etc.

Other Reusable Items	Other items not included in the above
<b>Total Reusable Materials</b>	
<b>11. BULKY ITEMS</b>	
Mattresses	Mattresses and box springs, futons, foam mattresses
Wood Furniture or Fixtures	Wall panels & cabinets etc.
Plastic Furniture or Fixtures	Drapery panels & cabinets etc.
Metal Furniture or Fixtures	Panels, cabinets,
Carpeting	Carpeting, underlay, mats
Other Large Bulky Items	Other items that does not fit into the above categories
<b>Total Bulky Items</b>	
<b>12. OTHER MATERIALS</b>	
Laminated Paper Packaging	Paper based packaging (at least 85% paper) with foil or plastic liners/layers/coatings, pouches, cookie bags, microwave popcorn bags, fast food sandwich wraps, gift bags, paper based trays, etc.
Waxed Paper Cups	Paper cups lined with plastic or wax
PET Other Packaging	Other #1 trays, egg cartons. No bottles and jars
Polystyrene Foam Packaging	#6 PS, trays, clamshells, cups & lids, PS used to protect boxed product
Polyethylene Plastic Bags & Film - Carry Out Bags	HDPE & LDPE retail carry-out bags
Polyethylene Plastic Bags & Film - Packaging	HDPE & LDPE bags/sacks, dry cleaning bags, bread bags, frozen food bags, milk bags, toilet paper and toweling, over-wrap, lawn seed, soil, peat moss, etc.
Polyethylene Plastic Bags & Film - Non-Packaging	HDPE & LDPE garbage bags, kitchen catchers, blue or clear bags for recyclables, sandwich and freezer bags, etc.
Laminated Pouches & Bag in Box Liners for Alcohol	Laminated plastic pouches and plastic bag-in-box liners for wine and other alcoholic beverages.
Laminated/Other Plastic Film and Bags	Plastic film and bags that are at least 85% (by weight) plastic with up to 15% (by weight) other closely bonded or impregnated materials. This includes meat, poultry and fish wrap; vacuum sealed bacon bag; luncheon meat and cheese wrap; cereal liners; chip bags and other snack food bags; candy wraps; pasta bags; boil in a bag; plastic based food pouches; bubble wrap; cling wrap; some cookie bags, etc. No alcohol pouches / bag in box liners.
<b>Total Laminated/Other Plastic Film and Bags</b>	
Other Rigid Plastic Packaging	Blister packaging, tubes for pharmaceutical & health care/cosmetic products, plant pots, unmarked/coded packaging, etc.
Durable Plastic Products	Non-packaging such as VCR tapes, CDs, toys, games, tupperware, etc. Include multi-material items that are mainly plastic – e.g. a plastic toy truck with metal axles. Plastic shoes, gloves, clothing go in Textiles.
Other Metal	Scrap metal, copper pipe, hardware, etc. Includes multi-material items that are mainly metal. Includes empty propane tanks.

Other Glass	Window glass, plates and glasses, light bulbs (fluorescent tubes and compact fluorescents go in Other HSW)
Textiles	Clothing, shoes, mats, drapes, sheets, etc. <b><u>not in reusable condition.</u></b>
Wood - Clean	Scrap lumber, no painted or treated wood.
Wood - Treated	Painted or treated wood.
Drywall - New	Clean drywall scrap from new construction projects.
Drywall - Used	Used drywall, painted or wet/mouldy.
Shingles	Roof shingles.
Other Construction & Renovation	Ceramic tiles, plaster, etc.
Tires and Other Rubber	Rubber tires and tubes, other rubber items such as hoses
Ceramics	Ceramic plates, cups, plant pots, etc. - NOT in reusable condition
Bagged Recyclables	Recyclable material contained in bags (use only for recycle stream)
Other Waste	Other waste that does not fit into the above categories, Materials not classified elsewhere, vacuum bags, wax candles, furnace filters, household liquids, etc.
Coffee pods	K-cups/single serves coffee cups,
<b>Total Other Materials</b>	
<b>Grand Total</b>	

APPENDIX B: COLLECTION LOG

Collection Log	Date: _____
Collection Supervisor: _____	
Weather Conditions: _____	
Street: _____	
Municipality: _____	

House #	Total Weight of Green Bin Containers Set Out	Equivalent # of Green Bin Containers Set Out	Equivalent # of Garbage Bags Set Out	Equivalent # of Blue Boxes Set Out	Notes
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Observations of Neighbourhood & General Comments:





1. **INTRODUCTION**

The Agency is seeking a qualified Vendor to Collect, sort and classify various solid waste material streams generated by the Agency's waste management programs and provide quantitative results to the Agency.

2. **BACKGROUND**

The Agency provides waste collection services to over 330,000 curbside households and 720 multi-residential properties, representing approximately 94,000 units located within the Regional Municipality of Peel. The Agency Collects Garbage, Recyclables and Source Separated Organics (SSO) from curbside households. Multi-residential dwellings are provided with collection services for Garbage and Recyclables. In 2014 and 2015, four seasonal waste composition audits were conducted for both curbside and multi-residential households. In January 2016, the Agency implemented bi-weekly Garbage and Recycling Collection, as well as weekly SSO collection for its curbside households. The Agency's desire is to update its waste composition information.

3. **OBJECTIVES**

The objective of the waste composition audits as specified in this Document is to sample and audit waste streams, including Garbage, Recyclables and SSO to produce quantitative information on the proportions of the constituent materials. The Agency intends to use this information to characterize and monitor the composition of the Garbage, Recycling and SSO waste streams generated by the residents of the Region of Peel, the impacts from diversion initiatives, and to support the Agency's waste infrastructure development and diversion initiatives.

The project is comprised of four components each with a distinct scope of work as follows:

- A – Curbside Waste Composition Audits;
- B – Multi-Residential Waste Composition Audits;
- C – Multi-Residential SSO Pilot Composition Audits; and
- D – Waste Characterization Audits.

4. **SCHEDULING**

Refer to Appendix 7.2 Waste Audit Schedule for a detailed schedule for each audit component. The Agency retains the right to reschedule composition audits, and cancel any composition audits at its discretion. The Agency will provide the Vendor with a minimum of ten business days' notice to reschedule an audit and a minimum of five business days' notice to cancel an audit.

5. **AGENCY'S GENERAL RIGHTS AND OBLIGATIONS**

The Agency retains the right to:

- Make changes to the Sorting Location to suit the Agency's operational needs;
- Remove any of the Vendors' staff who are not abiding by the Sorting Location rules and safety requirements; and
- Review all audit data at any time during the audit.

The Agency will provide the following:

- Identify the Agency's representative who will be the Vendor's primary contact;
- The Agency's representative will coordinate with the operation of the Sorting Location;
- Notification to the Agency staff who work at the Sorting Location about the composition audits;
- A brief orientation outlining safety protocols, the waste composition audit program, the importance of studies and required co-operation;
- Bins for the samples and post-sorted waste and will have the bins emptied as required. The Agency will cover all the costs associated with these bins including the final disposal of the post-sorted waste;
- A container for biohazardous wastes such as but not limited to hypodermic needles, including the final disposal of the post-sorted waste;
- Manually operated trommel units for sorting Garbage in accordance with the sorting methodology described in Table 1 in Section 9.
- Power washer and water for cleaning the sorting space; and
- Electronic data worksheets for the waste audit will be provided to the Vendor prior to the commencement of the audits.

## 6. **WASTE AUDIT SORTING LOCATION FOR VENDOR STAFF**

The Vendor staff shall be permitted to Work on-site at the Peel Integrated Waste Management Facility (the 'Sorting Location') between the hours of 7:00 am and 9:00 pm, Mondays to Fridays. The Agency will provide a suitable space at the Sorting Location during the winter season and an outdoor tent suitable for waste sorting with good ventilation, electrical outlets, heat, power generator fuel, and lighting. Vendor staff will have access to a lunchroom, change room and washroom facilities in the Sorting Location for the duration of the Contract.

Parking is on site at the Sorting Location.

## 7. **AGENCY RESPONSIBILITIES FOR THE WORK**

### 7.1. **Specific Requirements for Component A Curbside Waste Composition Audits**

7.1.1. The Agency will provide the Vendor with a set of single family households comprised of 10 sample areas each consisting of 10 households for a total sample size of 100 households. The 10 sample areas will be located in different neighbourhoods and will be specified by street addresses.

7.1.2. The Agency will coordinate with the Agency's waste collection contractor.

7.1.3. The Agency will provide the Vendor with instructions and materials to handle questions from residents, non-complying waste, and carts that are incorrectly set out.

### 7.2. **Specific Requirements for Component B Multi-Residential Waste and Component C SSO Pilot Composition Audits**

- 7.2.1. The Agency will collect the Garbage, Recycling and SSO waste streams from multi-residential locations and provide the Vendor with samples of approximately 100 kg but less than 150 kg. Refer to Appendix 7.3 for the material type and quantity of samples.
- 7.2.2. The Agency will provide the first sample by 10am and the final sample by 2pm.
- 7.2.3. The Agency will provide the Vendor with the sample buildings, net weight, day of collection, and material type.

7.3. **Component D Waste Characterization Audits: Curbside**

- 7.3.1. The Agency is responsible for providing the street addresses to the Vendor for waste collection prior to each audit.
- 7.3.2. The Agency will provide labels for the Vendor to affix on the post-sorted material categories for the Agency's further study.

7.4. **Component D Waste Characterization Audits: Multi-Residential**

- 7.4.1. The Agency will collect and transport loads of Garbage from multi-residential dwellings to the Sorting Location.
- 7.4.2. The Agency's representative will prepare multi-residential Garbage samples for the Vendor to sort.
- 7.4.3. The Agency will prepare a minimum of four 100 kilogram samples of multi-residential Garbage for the Vendor to sort daily at the Sorting Location.
- 7.4.4. The Agency will provide labels for the Vendor to affix on the post-sorted material categories for the Agency's further study.

8. **VENDOR RESPONSIBILITIES FOR CURBSIDE WASTE COLLECTION AND WASTE SORTING**

8.1. **General Requirements for the Collection of Curbside Waste**

- 8.1.1. The Vendor shall be responsible for waste collection for Component A Curbside Waste Composition Audits and Component D Waste Characterization Audits.
- 8.1.2. Waste collection cannot begin before 7:00 am and must be completed by 11:00 am on the day of Collection.

- 8.1.3. The Vendor must provide their collection staff with personal protective equipment including but not limited to heavy duty gloves, safety footwear, high-visibility vests and coveralls.
- 8.1.4. The Vendor must provide an unmarked 16 foot cube van or similar enclosed vehicle is to be used for waste collection. The collection vehicle must be able to accommodate the Garbage, Recycling and SSO material collected from all sample households each day.
- 8.1.5. The Vendor must provide sufficient labour, equipment, tools, and supplies, other than what is explicitly stated as the responsibility of the Agency, to complete the collection of waste by 11:00 am on each sorting day.
- 8.1.6. The Vendor will respond to resident questions as instructed by the Agency's representative and by using the materials provided.
- 8.1.7. The Vendor will handle material set out incorrectly as instructed by the Agency's representative and using the materials provided.
- 8.1.8. The Vendor must return the carts in an upright position with the lids closed and must ensure that the carts are not on the roadway, on the travelled portion of the street, laneway, or obstruct parking or a resident's driveway after collection.
- 8.1.9. The Vendor is to immediately notify the Agency's representative if any problems are encountered during collection, particularly if the Region's waste collection crews are in the area.
- 8.1.10. The Vendor is required to collect compliant waste set out. This means that the Vendor is required to collect all garbage material that is set out in the garbage carts on the garbage collection day as well as garbage bags with bag tags affixed and organics set out in the organics cart. Additionally, the Vendor is required to collect all recycling material that is set out in the recycling carts on the recycling collection day as well as recycling bags, either blue tinted or clear, and organics set out in the organics cart. Any other material set out is not to be collected. The Vendor is not required to collect non-compliant waste set out.
- 8.1.11. Weather conditions and unusual set-outs are to be documented on the Collection log (e.g. whole bag of pop cans, large pile of magazines).
- 8.1.12. The Vendor shall transport the collected material to the Sorting Location.
- 8.1.13. The Garbage, Recycling and SSO waste collected must be kept separate.
- 8.1.14. Garbage collected must be placed in black plastic bags.
- 8.1.15. Recycling or SSO collected from each household are to be sorted and placed in separate clear plastic bags.

8.1.16. Labels supplied by the Vendor shall be affixed to the black and clear plastic bags clearly identifying the sample areas.

8.2. **Waste Collection Requirements Specific to Component A Curbside Waste Composition Audits**

8.2.1. The duration of each Curbside Waste Composition Audit will be four consecutive weeks. Garbage, Recycling and SSO waste streams are to be collected from the curbside from each sample area and households as determined by the Agency on the assigned day.

Collection Day	City or Town	Approximate Number of Households to be Collected
Monday	Caledon, Brampton and Mississauga	30
Tuesday	Caledon, Brampton and Mississauga	20
Wednesday	Brampton and Mississauga	30
Thursday	Brampton and Mississauga	20

8.2.2. Garbage and Recycling streams are co-collected with the SSO material stream on alternating weeks. Materials will be collected from each curbside household for four consecutive weeks meaning two garbage collections, two recycling collections, and four organics collections. Each group will have a designated collection day (Monday, Tuesday, Wednesday, or Thursday) and shall be collected on the same day of the week in each collection week.

8.2.3. The Vendor shall record on the collection log provided by the Agency, the number of Garbage carts, Recycling carts and Green carts, and any other type of waste receptacle and bulky items set out by each household.

8.3. **Waste Collection Requirements Specific to Component D Waste Characterization Audits**

8.3.1 The Vendor is responsible for Collecting Garbage from the single-detached curbside households specified by the Agency.

8.3.2 The duration of the Waste Characterization Audit Curbside component is 4 days during one week. The Vendor must collect a minimum of 400 kg of Garbage on each designated collection day (Monday, Tuesday, Wednesday, and Thursday). The material must be weighed at the curb to ensure that the sample size has been obtained.



7.4.5. The Vendor is required to provide storage containers for materials designated for the Waste Characterization Study as shown on the Waste Characterization Audit Flow Diagram found in Appendix 7.8.

9. **VENDOR RESPONSIBILITIES FOR MULTI-RESIDENTIAL WASTE SORTING**

9.1. **Waste Sorting Requirements Specific to Component D Waste Characterization Audits**

The duration of the Waste Characterization Audit Multi-Residential component is 4 days during one week.

9.2. **Waste Sorting Requirements Specific to Component B Multi-Residential Waste Composition Audit**

The duration of the Multi-Residential Waste Composition Audit is 4 days during one week.

9.3. **Waste Sorting Requirements Specific to Component C SSO Pilot Composition Audits**

The duration of the Multi-Residential SSO Pilot Composition Audit is 5 days during one week.

10. **WASTE SORTING REQUIREMENTS FOR ALL COMPONENTS**

10.1. The Vendor's staff shall demonstrate a level of professionalism in both appearance and conduct.

10.2. The Vendor shall ensure that all of their staff understands the nature of the Work and the risks presented with collecting and sorting waste and are familiar with techniques to minimize the risk of personal injury.

10.3. The Vendor shall ensure that all persons participating in the composition audits have received suitable training prior to ensure that staff is familiar with the composition audit requirements, material categories and sampling and sorting methods.

10.4. The Vendor is responsible to ensure that each member of the waste sorting crew has all the appropriate and valid immunization shots (e.g. tetanus).

10.5. The Vendor is responsible to ensure that each member of the waste sorting crew is aware and trained to handle hazardous waste and that they are Workplace Hazardous Materials Information System (WHMIS) certified.

10.6. The Vendor shall report all injuries to the Agency's representative immediately and shall provide all accident reports and associated documentation.

10.7. The Vendor will be required to provide sufficient labour, equipment, tools, and supplies, other than what is explicitly stated as the responsibility of the Agency, to complete the work. With respect to labour, the Vendor must provide a

supervisor and sufficient number of sorters to finish sorting within the day by 8pm. The supervisor will be responsible for performance and conduct of the sorting staff and the quality of the data. Based on experience, four sorters or more are required for Component A Curbside Waste Composition Audit, Component B Multi-Residential Waste Composition Audits, and Component C Multi-Residential SSO Pilot Composition Audits and eight sorters or more are required for Component D Waste Characterization Audits; however, the Vendor will have to make their own determination of staff requirements.

- 10.8. The Supervisor must have a cell phone and shall check in with the Agency's representative at the beginning of each day prior to commencing Work, and at the end of each sorting.
- 10.9. The Supervisor must be certified in administering First Aid and Cardiopulmonary Resuscitation (CPR).
- 10.10. It is the responsibility of the Vendor to know the extent of the Work and equipment required to successfully complete the audits and to adhere to all applicable Agency and regulatory requirements.
- 10.11. The Vendor shall provide all equipment, material and supplies necessary for the Work except for the equipment and materials to be supplied by the Agency as stated explicitly herein.
- 10.12. The Vendor shall supply equipment for waste sorting which may include but not be limited to the following:
  - An electronic weigh scale which has been certified by Weights and Measures Canada and is capable of measuring 0.01kg to at least 100kg. The scale must be calibrated regularly and be of sufficient accuracy to provide weight measurements within plus or minus one percent of true weight. The Vendor shall confirm the accuracy of the scale each sorting day. The Agency reserves the right to request copies of the scale calibration records;
  - Heavy-duty puncture resistant gloves, waterproof safety footwear, traffic safety vests, one-piece Tyvek type suits or ankle length rubber aprons, safety glasses, hard hat, protective coveralls, ear plugs, air-filter safety dust masks, and full face shields;
  - A digital camera;
  - A laptop and Vendor supplied access to the internet;
  - A first aid kit;
  - Black plastic bags and clear plastic bags;
  - Any other items necessary to complete the composition audit (e.g. rake, shovel, broom, dustpan, knives to open bags, plastic sheets to cover tables/floors, etc.); and
  - Hand soap, cleaners, brooms, etc. necessary for cleaning the sort area.
- 10.13. The Vendor must document the pre-sort weight of the material before sorting any material for each sort.

- 10.14. The black and clear plastic bags supplied and used by the Vendor to collect waste from the curbside households must be removed prior to sorting and excluded from the audit.
- 10.15. The Vendor is required to take photographs of each material category once all material has been sorted using labels to identify the Component Audit, the waste stream and the material category.
- 10.16. The Vendor is required to weigh each material category and document the weights on the audit worksheets provided by the Agency. The tare weight of all containers used for weighing shall be excluded from the weight of each material category.
- 10.17. The Vendor shall maintain the sorting area in a reasonably clean state (and to the satisfaction of the Agency) and will wash the sorting bins, floors, sorting tables and other surfaces in contact with the waste at the end of each day.
- 10.18. Upon completion of the waste sorting audits, the Vendor shall promptly remove all of the Vendor's equipment and supplies from the sorting area and shall restore the area to a reasonably clean state and place all leftover materials and waste in the containers provided by the Agency for this purpose.
- 10.19. All units of measurements are to be expressed in kilograms to two decimal places and shall be recorded on the appropriate audit worksheet.
- 10.20. If the Vendor is not sure what category an item belongs in, the Vendor will contact the Agency's representative for assistance or will arbitrarily select the category that the Vendor feels best represents the item and include a note on what the item is and how much it weighs so that it can be allocated properly by the Agency. The container and contents shall be separated and each categorized and weighed appropriately.
- 10.21. The Vendor will make note of and weigh separately any item or material that significantly affects the total weight measured for a material category.
- 10.22. The Vendor shall disassemble multi-material items that are easy to separate. For example, if the paperboard insert in a plastic bubble pack is not bonded to the outer packaging, separate the two components and sort them into the assigned category(ies).
- 10.23. Bags that are found to contain biohazardous hypodermic needles or other hazardous items shall be set aside, weighed, and described on the appropriate audit worksheet provided by the Agency. They will then be disposed of in a dedicated container provided by the Agency.
- 10.24. Where multiple bins of the sample material have been sorted, record multiple weights for one category as follows: e.g. "25.15+5.25". Enter a "0" if there is no material for a category. The hard copy data collected at the Sorting Location will be entered into the Agency's audit worksheets. The Vendor's supervisor shall review the data entered into the audit worksheets to verify accuracy for each material.

10.25. The sum of weights of the materials shall not be less than 99 percent of the total weight of the unsorted material or waste stream; otherwise another collection and composition audit will need to take place during an additional day or week at the Vendor's cost.

10.26. The Vendor shall provide a brief qualitative description and take photographs of the composition of the "Other Waste" materials category in the space provided on the audit worksheet provided by the Agency for recording sort results and weights. If any "Other" category (e.g. Other Paper, Other Plastics, or Other Waste) is 10 percent or more of the total load weight, the Vendor must provide a detailed description of the contents.

10.27. **Containers Containing Liquids Requirement**

The Vendor is not required to open bottles containing liquid; the weight of the material must be recorded and entered into the worksheet provided by the Agency in the "Containers with Liquid" category.

10.28. **Containers and Bags Containing SSO Requirements**

The Vendor shall make best efforts to separate organic materials from their packaging before weighing. This can be achieved by opening all packaging and vigorously shaking or scraping the packaging to remove all organic contents.

10.29. **Sorting Curbside Waste Composition Audits Requirements**

The Agency requires the Vendor to sort all the curbside Garbage, Recyclables and SSO collected daily according to the pre-assigned material categories listed in Appendix 7.4 Curbside Waste Composition Study Material Categories.

10.30. **Sorting Multi-Residential Waste Composition and SSO Pilot Composition Audits**

The Agency requires the Vendor to sort all the multi-residential Garbage, Recyclables and SSO collected daily according to the pre-assigned material categories listed in Appendix 7.5 Multi-Residential Waste Composition Study Material Guide and Appendix 7.6 Multi-Residential SSO Pilot Composition Material Sorting Categories and Description.

10.31. **Vendor Requirements for Sorting Waste Characterization Audits**

The Agency requires the Vendor to sort a minimum of four 100 kilogram samples of curbside or multi-residential Garbage daily in accordance with the pre-assigned material categories listed in Appendix 7.7 Waste Characterization Audit Material Sorting Categories and Description, the Waste Characterization Audit Flow Diagram shown in Appendix 7.8, and the methodology described in Table 1: Waste Characterization Audit Methodology. The audit processes described below separates Garbage into various sizes and constituent materials as would occur using physical separation equipment in a material processing facility.

**TABLE 1: WASTE CHARACTERIZATION AUDIT METHODOLOGY**

<b>Steps</b>	<b>Methodology</b>
1	Calibrate the weigh scale.
2	Measure and record the weight of the total Garbage stream.
3	Debag and remove plastic bags down to a three inch zip lock or grocery bag.
4	Load approximately two kilograms of sample material at a time into the Agency's "Overs" trommel unit and manually spin the lever to process the material. Garbage that falls through the 100mm or 50mm screen openings into the storage bucket underneath the unit shall then be set aside to be processed through the "Large Fines" trommel unit. Garbage that is processed through the "Overs" trommel unit and exits the turn handle end of the unit shall be sorted into the "Overs" material categories shown on the Waste Characterization Audit Flow Diagram found in Appendix 7.8.
5	Load Garbage that falls through the 100mm or 50mm screen openings of the "Overs" trommel through the "Large Fines" trommel unit. Garbage that falls through the 50mm or 25mm screen openings into the storage bucket placed underneath the unit by the Vendor shall then be set aside to be processed through the "Middling & Small Fines" trommel unit. Garbage that is processed through the "Large Fines" trommel unit and exits the turn handle end of the unit shall be sorted into the "Large Fines" material categories shown on the Waste Characterization Audit Flow Diagram found in Appendix 7.8.
6	Load Garbage that falls through the 50mm or 25mm screen openings of the "Large Fines" trommel through the "Middling and Small Fines" trommel unit. Garbage that falls through the 25mm or 12.5mm screen openings into the storage bucket placed underneath the unit by the Vendor shall then be stored, weighed and recorded as "Small Fines". Garbage that is processed through the "Middling & Small Fines" trommel unit and exits the turn handle end of the unit shall be stored, weighed and recorded as "Middling Fines."
7	Sort "Overs" and "Large Fines" into the Waste Characterization Audit Material Categories listed on the Waste Characterization Audit Flow Diagram found in Appendix 7.8.
8	Measure and record weights of each constituent material on the appropriate Waste Composition Audit Worksheet.
9	Store materials in the bins designated for the Waste Characterization Study samples as shown on the Waste Characterization Audit Flow Diagram in Appendix 7.8.
10	The Vendor shall empty sorting materials into the containers provided by the Agency for transporting post-sorted samples to the Agency's tip floor. The Vendor shall transport and empty the containers onto the Agency's tip floor when permitted to do so by the Agency's tip floor traffic control staff.
11	Clear all material from the sorting table.
12	Clean and clear area at end of each sorting day

11. **REQUIRED MEETINGS**



The Vendor's supervisor must attend one half day pre-audit planning meeting with the Agency's representative(s) within 10 business days after Contract award. The purpose of the meeting is to discuss the following:

- Sample size;
- Sorting procedure;
- Record keeping;
- Equipment requirements;
- Collection schedule;
- Sorting location;
- Transfer of materials from the tip floor to the sorting area;
- Disposal of materials post-sort;
- Communications; and
- Submission of results.

## 12. **REPORTING REQUIREMENTS**

12.1. The Vendor shall provide an electronic worksheet to the Agency's representative at the end of each sorting day by 9pm. The worksheet shall include but not be limited to the following information:

- Time of arrival;
- Departure time;
- Staff present; and
- Health and safety incidents.

12.2. The Vendor shall provide a draft of the completed Microsoft Excel worksheets (Waste audit description, collection logs, Waste sort logs, collection results, and sort results, including calculations) at the end of each sorting day by 9pm.

12.3. The Vendor shall provide photographs of each material category, labelled with the component audit, the Waste stream, and material category at the end of each sorting day by 9pm.

12.4. The Vendor shall provide the final completed Microsoft Excel worksheet (Waste audit description, collection logs, Waste sort logs, collection results, sort results, including calculations) within five business days after approval of the draft worksheets by the Agency's representative.

## 13. **SAFETY REQUIREMENTS**

The Vendor's employees and subcontractors must obey the Agency's site specific safety regulations which will be provided to the Vendor's supervisor at the kick-off meeting. Failure to obey any of the regulations by the Vendor staff shall result in that particular operation being stopped until the safety hazard or infraction has been resolved or termination.

## 14. **SALVAGING AND SCAVENGING**

The Vendor shall not allow any staff to scavenge or salvage any material at the work Sorting Location and shall eject its employees and/or subcontractors from the Sorting Location immediately should this occur.

## **PRICING**

Lump Sum pricing shall include but not be limited to; collection vehicles and operators (where applicable), all disbursements including travel expenses, meetings with the Agency, labour, materials and equipment required to complete the audits including but not limited to all applicable taxes, overheads, profits and all other associated vendor expenses except HST.

Refer to Waste Audit Schedule, Appendix 7.2.

<b>Description</b>	<b>Season</b>	<b>Lump Sum Price</b>
Component A: Curbside Waste Composition Audits	Spring 2017	\$
	Summer 2017	\$
	Fall 2017	\$
Component B: Multi-Residential Waste Composition Audits	Spring 2017	\$
	Summer 2017	\$
Component C: Multi-Residential SSO Pilot Composition Audits	Spring 2017	\$
	Summer 2017	\$
	Fall 2017	\$
Component D: Waste Characterization Audits	Summer 2017	\$
<b>GRAND TOTAL SUMMARY (exclusive of applicable taxes)</b>		<b>\$</b>

## **ADDITIONAL OPTIONAL SERVICES**

All-inclusive optional services are in addition to the lump sum deliverables and are exclusive of all applicable added taxes. Optional services will not be considered unless prior written approval is received from the Agency's representative.

<b>Item</b>	<b>Description</b>	<b>Lump Sum Cost</b>
1	Each Additional Street Curbside Waste Composition Audits	\$
2	Each Additional Day Curbside Waste Composition Audits	\$
3	Each Additional Four Week Curbside Waste Composition Audits	\$
4	Each Additional Day Multi-Residential Waste Composition Audits	\$
5	Each Additional Two Week Multi- Multi-Residential Waste Composition Audits	\$
6	Each Additional Two Week Multi-Residential SSO Pilot Composition Audits	\$

7	Each Additional Two Week Waste Characterization Audit (includes collection and sorting)	\$
8	Each Additional Year (4 Seasons) of Curbside Waste Composition Audit	\$
9	Each Additional Year (4 Seasons) of Multi-Residential Waste Composition Audit	\$
10	Each Additional Year (4 Seasons) of Multi-Residential SSO Pilot Composition Audits	\$
11	Each Additional Year (4 seasons) Waste Characterization Audit (includes collection and sorting)	\$

## **Request for Quotation for Collection of Curbside Waste Set Out Data and Food Waste Household Surveys**

University of Guelph is invited to submit a quotation for provision of consulting services to identify and record waste materials set out at curbside for collection within York Region's nine municipalities and perform a household survey in the study neighbourhoods.

By submitting a quotation, it is fully understood and acknowledged that your firm has read and accepts the Region's Terms and Conditions. A copy of the Terms and Conditions of Consulting/Audit Services Agreement is attached, and labelled as Appendix E.

### **SCOPE OF SERVICES:**

The scope of services includes, but is not limited to provision of all labour, supervision, supplies and materials required to collect waste set out data and complete a target number of household surveys, as outlined in Appendix A, at specific curbside locations and in accordance with the procedures described herein. Your organization will be responsible for all data recording, certification and timely submission of raw data for each sampling location. Analysis of results and report are to be submitted by year end.

The University will provide the raw data to York Region staff using an Excel template provided by the Region. A data sharing agreement will be established between York Region and University of Guelph to set out the terms of use for research publication purposes.

The University shall be responsible to undertake all work necessary to meet the service objectives and specifications as identified below, for the duration of the contract. The work of this project is to be undertaken in accordance with the schedule requirements as identified herein, which may be modified only with prior written approval of York Region's Program Manager, Integrated Waste Management Master Plan.

### **Study Goal:**

The 2015 set out study results will be used to compare against the baseline study that was conducted in 2011/2013 as part of the Region's Integrated Waste Management Master Plan. The 2015 data will be used as a measure to assess participation rates in curbside waste management programs within York Region and estimate household waste generation rates for all streams. The household survey data will be compared with the set out study information to identify trends or relationships between food waste behaviours and waste generation.

**Objectives:**

The objectives of this study are:

- To collect set out data from all nine (9) local municipalities within York Region to determine participation rates and waste generation rates (by weight) for all waste streams collected curbside. All data to be collected is specified in Appendix A.
- To collect survey data from a representative sample of the set out study households for comparison with the set out data.
- To identify connections between green bin waste generation rates and behaviours and attitudes towards food waste.

**Methodology:**

- A total of 20 neighbourhoods of fifty (50) household blocks, randomly selected throughout the Region, are to be sampled.
- Set out for specific households, detailed in Appendix B, are to be recorded weekly for four (4) weeks to ensure observation of two (2) full curb side set out cycles that include bi-weekly garbage collection.
- On the designated collection date, sampling staff will arrive at curbside locations as close to collection time as is logistically feasible (see Appendix B and Appendix C for sample collection times).
- The date of observation, time, staff name, address, local municipality and weather conditions are to be recorded with the data, as detailed in Appendix A.
- The sampling crew will weigh each bin/bag and record the data on the tracking sheet provided by the Region.
- Once all the households in the area are sampled, the crew members proceed to the next scheduled sample site.
- York Region will provide training to the Consultant and sampling staff prior to the start of the study to ensure proper recording methods

**Audit Schedule:**

A sample schedule has been provided in Appendix C. This is the preferred schedule, however, an alternate schedule that meets the requirements of the work described herein can be submitted by the Consultant as part of the bid.

**Materials:**

The Consultant will be responsible for providing the following materials for all sampling staff:

- Safety equipment - safety shoes, reflective vest, rain gear
- Hand sanitizer and nitrile gloves
- Clip board, pen
- Scale
- Collection check list (Appendix A)

- The Lead Auditor must have a cell phone for communication with the Region during the study

*York Region will provide form letters and business cards to provide to residents should they have questions about this study.*

**Staffing Requirement:**

- Minimum of 3 staff, including one who is designated as the lead auditor to handle any interactions with residents during data collection.

NOTE: Data collection can be completed in half days. Bid form must reflect hourly rate for staff to complete set out collection and surveys.

**Project Timeline:**

The Region would like this study to be initiated in June of 2015 and completed by the end of August (including surveys). While these dates are preferred, they are open for discussion with the successful Consultant.

**Payment for Services:**

Payment will be made on the basis of invoices submitted with completed raw data sheets. Invoices may be submitted after each week of the audit and will be paid once York Region staff have received and are satisfied with all documents and submissions relating to the invoiced work.

At no time shall the total costs for the services rendered exceed the total amount approved without prior written authorization from York Region.

**Fee Quotation:**

Your quotation shall include your unit price rate for each item as specified on the Bid Form (Appendix D).

The award of this assignment will be based on the information requested in Appendix D. The successful Firm will receive a formal award letter from York Region.

Your costs, as firm quotes, will be evaluated based on our estimate of our requirements for this particular project.



# APPENDIX A Curbside Collection Data Sheet

## Set Out Study - Household Checklist

Local Municipality: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Street Name: \_\_\_\_\_

Weather: \_\_\_\_\_  
 Time: \_\_\_\_\_

### Bulky Items Legend

A - Appliance  
 E - Electronics  
 F - Furniture  
 M - Mattress  
 T - Toilet  
 O - Other (Please note)

House #	Green Bin			Type of Green Bin Liner					Garbage				Recycling				Leaf/Yard Waste Quantity	Bulky Items	Notes (special items, contamination)
	Quantity	Equivalent	None	Newspaper	Paper Bag	BPI Compostable	Retail Plastic	Biodegradable or Uncertified	Black Bag	Clear Bag	Bin	Equivalent	Blue Box	Blue Bag	Clear Bag	Opaque Bag			
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Week 1

\*\*Quantities to be measured using equivalent quarters compared to standard sized curbside green bins, recycling bins, and garbage bags.

**APPENDIX B**  
**Set Out Study – Sampling Locations and Times**

Day	Local Municipality	Street Name/Area	Collection Time*	Study Time*
Monday				
Tuesday	East Gwillimbury	McCowan Rd (Northbound first)	7:00 - 8:00 am	7:00:00 AM
	Markham	Townson Rd/Touraine (southeast of Woodbine and Major Mac)	7:00 - 7:30 am	7:00:00 AM
	Markham	Ladyslipper Ct (Southeast of Bayview and 14th)	8:00 - 9:30 am	8:00:00 AM
	Whitchurch/Stouffville	Bethesda Side Rd (between Warden and Kennedy)	10:00 - 12:00 am	9:00:00 AM
	Georgina	Forestry and Pinecrest Rd in Pefferlaw	After 1 pm	12:00
Wednesday	Markham	Carlton Rd (southeast of Warden and 16th)	10:00 - 11:00	7:00:00 AM
	Richmond Hill	Bowhill Dr (South of Major Mac and Leslie)	8:00 - 8:30 pm	8:00:00 AM
	Markham	Cynthia Jean/Weatherill Rd (Kennedy and Major Mac)	8:30 - 9:00 am	9:00:00 AM
	Vaughan	Calera Crescent (South of Islington and Major Mac)	8:00 - 8:30 am	7:30:00 AM
	Vaughan	Lodgeway Dr (Southeast of Kirby and Keele)	11:00 - 12:00 pm	8:30:00 AM
Thursday	Markham	Kyla Crescent (South of 14th and McCowan)	8:00 - 8:30 am	7:30:00 AM
	Vaughan	Sandwood Dr/Auburndale Dr (Southeast of Rutherford and Dufferin)	9:00 - 10:00 am	8:00:00 AM
	Newmarket	Ross Patrick Cres (East of Davis and Bathurst)	7:00 - 7:30 am	7:00:00 AM
	Newmarket	Silverbirch Dr (East of Davis and Yonge)	9:00 - 10:00 am	8:00:00 AM
Friday	Aurora	Springburn Cres. or Corbett Cres – can arrange pm times with collection	pm	pm
	King	Hill Farm Rd/Wellar Ave (Northeast of King Rd and 27)	10:30 - 11:00 am	8:00:00 AM
	Richmond Hill	White Lodge Cres (Southeast of Bathurst and Elgin Mills W)	8:30 AM	8:00:00 AM
	Richmond Hill	Windmill Ct (Northwest of Yonge and Gamble)	11:00 - 12:00 pm	9:00:00 AM
	Vaughan	Sandway Ct (Keele and Drummond)	11:00 - 12:00 pm	9:00:00 AM
	Vaughan	Marita PL(Northeast of Keele and Steels)	11:00 - 12:00 pm	9:00:00 AM

*\*Region staff will confirm collection times prior to study start.*

**APPENDIX C**  
**Set Out Study - Sample Schedule**

Week 1

<b>Name:</b>	<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>Lead Auditor</b>	<b>Georgina:</b> Sedore/Churchill  <b>7:45am-9:00am</b>				
<b>Staff 1 AM</b>		<b>Markham:</b> Townson rd/Touraine Ladyslipper Ct <b>6:30-10:30am</b>  <b>Stouffville:</b> 3. Bethesda Side Rd <b>9-12 pm</b>	<b>Markham:</b> Cynthia Jean/Weatherill Rd <b>6:30-10:00am</b>  <b>Vaughan:</b> Calera Ct <b>6:30-9:00am</b>  <b>Markham:</b> 1. Carlton rd <b>9 – 12 pm</b>  <b>Vaughan:</b> Lodgeway Dr <b>9 – 12 pm</b>	<b>Vaughan:</b> Sandwood Dr/Auburndale <b>6:30-9:00am</b>  <b>Markham:</b> 2. Kyla Ct <b>6:30-9:00am</b>	<b>Vaughan:</b> 2. Marita PL 3. Sandway Ct  <b>King:</b> 3. Wellar/Elizabeth <b>6:30-9:00am</b>  <b>9 – 12 pm</b>
<b>Staff 2 AM</b>		<b>Markham:</b> Townson rd/Touraine Ladyslipper Ct <b>6:30-10:30am</b>  <b>Stouffville:</b> 3. Bethesda Side Rd <b>9-12 pm</b>	<b>Markham:</b> Cynthia Jean/Weatherill Rd <b>6:30-10:00am</b>  <b>Vaughan:</b> Calera Ct <b>6:30-9:00am</b>  <b>Markham:</b> 1. Carlton rd <b>9 – 12 pm</b>  <b>Vaughan:</b> Lodgeway Dr <b>9 – 12 pm</b>	<b>Vaughan:</b> Sandwood Dr/Auburndale <b>6:30-9:00am</b>  <b>Markham:</b> 2. Kyla Ct <b>6:30-9:00am</b>	<b>Vaughan:</b> 2. Marita PL 3. Sandway Ct  <b>King:</b> 3. Wellar/Elizabeth <b>6:30-9:00am</b>  <b>9 – 12 pm</b>

<b>Staff 1 PM</b>		<b>East Gwillimbury:</b> 1. McCowan Rd  <b>6:30-8:00am</b>	<b>Richmond Hill:</b> 2. Bowhill Dr <b>6:30-10:00am</b>  <b>I've asked to shift Richmond Hill am to pm</b>	<b>Newmarket:</b> 1. Ross Patrick Ct 2. Silver birch Ct  <b>6:45-9:00am</b>  <b>King – alternate pm collection</b> Bennet, Banner Lane, Warren Rd., Hollingsworth, Patton St	<b>Aurora:</b> Springburn Cres/ Corbett Cres  <b>Richmond hill:</b> 1. White lodge Ct 2. Windmill Ct/Carriage House Ct /Harvest Ct  <b>I've asked to shift Richmond Hill am to pm</b>
<b>Staff 2 PM</b>		<b>East Gwillimbury:</b> 1. McCowan Rd  <b>6:30-8:00am</b>	<b>Richmond Hill:</b> 2. Bowhill Dr <b>6:30-10:00am</b>  <b>I've asked to shift Richmond Hill am to pm</b>	<b>Newmarket:</b> 1. Ross Patrick Ct 2. Silver birch Ct  <b>6:45-9:00am</b>  <b>King – alternate pm collection</b> Bennet, Banner Lane, Warren Rd., Hollingsworth, Patton St	<b>Aurora:</b> Springburn Cres/ Corbett Cres  <b>Richmond hill:</b> 1. White lodge Ct 2. Windmill Ct/Carriage House Ct /Harvest Ct  <b>I've asked to shift Richmond Hill am to pm</b>

Week 2:

Name:	Monday	Tuesday	Wednesday	Thursday	Friday
<b>Lead Auditor</b>	<b>Georgina:</b> 1. Sedore/Churchill  <b>7:45am-9:00am</b>				
<b>Staff 1</b>		<b>Markham:</b> 1. Townson rd/Touraine 2. Ladyslipper Ct <b>Stouffville:</b> 3. Bethesda Side Rd <b>6:30-10:30am</b>	<b>Markham:</b> 1. Carlton rd 3.Cynthia Jean/Weatherill Rd  <b>Richmond Hill:</b> 2. Bowhill Dr  <b>6:30-10:00am</b>	<b>Vaughan:</b> 1. Sandwood Dr/Auburndale  <b>Markham:</b> 2. Kyla Ct  <b>6:30-9:00am</b>	<b>Richmond hill:</b> 1. White lodge Ct 2. Windmill Ct/Carriage House Ct /Harvest Ct  <b>King:</b> 3. Wellar/Elizabeth <b>6:30-9:00am</b>
<b>Staff 2</b>		<b>Markham:</b> 1. Townson rd/Touraine 2. Ladyslipper Ct  <b>Stouffville:</b> 3. Bethesda Side Rd  <b>6:30-10:30am</b>	<b>Markham:</b> 1. Carlton rd 3.Cynthia Jean/Weatherill Rd <b>Richmond Hill:</b> 2. Bowhill Dr <b>6:30-10:00am</b>	<b>Newmarket:</b> 1. Ross Patrick Ct 2. Silver birch Ct  <b>6:45-9:00am</b>	<b>Aurora:</b> 1. Cranberry lane <b>Vaughan:</b> 2. Marita PL 3. Sandway Ct <b>6:30-9:30am</b>
<b>Staff 3</b>		<b>East Gwillimbury:</b> 1. McCowan Rd  <b>6:30-8:00am</b>	<b>Vaughan:</b> 1. Lodgeway Dr 2. Calera Ct  <b>6:30-9:00am</b>	<b>Vaughan:</b> 1. Sandwood Dr/Auburndale  <b>Markham:</b> 2. Kyla Ct <b>6:30-9:00am</b>	<b>Aurora:</b> 1. Cranberry lane  <b>Vaughan:</b> 2. Marita PL 3. Sandway Ct <b>6:30-9:30am</b>
<b>Staff 4</b>		<b>East Gwillimbury:</b> 1. McCowan Rd  <b>6:30-8:00am</b>	<b>Vaughan:</b> 1. Lodgeway Dr 2. Calera Ct  <b>6:30-9:00am</b>	<b>Newmarket:</b> 1. Ross Patrick Ct 2. Silver birch Ct  <b>6:45-9:00am</b>	<b>Richmond hill:</b> 1. White lodge Ct 2. Windmill Ct/Carriage House Ct /Harvest Ct <b>King:</b> 3. Wellar/Elizabeth <b>6:30-9:00am</b>

## APPENDIX D Additional Information and Bid Form

Supplemental Information:

1. Please provide a schedule with milestones for the overall study.
2. Please provide a brief summary of the University of Guelph's research program relating to food waste.

Item No.	Item	Unit Price	Number of Staff	Qty. of time	Total Cost
1.	Cost to perform the following tasks: <ul style="list-style-type: none"> <li>• To collect curbside set out data from for all nine (9) Local Municipalities for a minimum of 4 weeks (2 collection cycles)</li> </ul>	\$_____ price per hour for Staff	1  2	X _____ weeks  X _____ weeks	\$
2.	<ul style="list-style-type: none"> <li>• Door to door surveys in sampling neighbourhoods</li> </ul>	\$_____ price per hour for Staff	_____	X _____ weeks	\$
3.	Other expenses (please provide list)				

GST/HST Registration number (if applicable): \_\_\_\_\_

List prices are exclusive of HST. Prices quoted must be firm.

**DATED** at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 2015

Signed, and Delivered in the presence of:

**Name of Company** \_\_\_\_\_

**Signature of Signing Officer** \_\_\_\_\_



**Name & Title** \_\_\_\_\_

The Bidders acknowledge that the acceptance of any bid is subject to the approval of the Commissioner of Environmental Services of The Regional Municipality of York. In the event that Commissioner approval is not obtained and the Contract is not awarded, the Bidders shall not have any claims against the Region including claims for lost profits or any consequential damages arising out of the Region's failure to award the Contract.

For any bid to be considered responsive and responsible, it must be legibly signed by an individual(s) who has the authority to bind the organization submitting the bid.

The onus unequivocally remains with the Bidder to ensure that bids are delivered to the designated location, by the closing time stipulated herein, in accordance with the submission process. Misdirected bids, bids received after the closing date and/or time will not be accepted and will be returned unopened. Requests for extensions of closing date or time will not be granted and adjustments to bids by telephone or fax will not be considered.

Bids which are late, incomplete, conditional, obscure or illegible, are not written in ink or typewritten, have not been signed or do not have an original signature, are restricted or altered in an unacceptable way, do not provide evidence of receipt of Addenda, fail to conform to the terms and conditions set out herein, or otherwise fail to conform to the requirements of the Request For Quotation documents or the Region's Tendering/Proposal Procedures, will be deemed to be informal and will be rejected by the Region.

Erasures, overwriting and strike-outs will not be reason for rejection, provided that all such changes are legible and have been initialled by the same authorized signatory that executed the bids on behalf of the Bidder. Bids must be legible and completed in ink or typewritten.

All Bids shall be submitted fully completed using the attached Bid Form. Failure to bid on all items requested shall result in rejection of that Bid.

Each Bidder, by submitting a bid, represents that the Bidder has read, completely understands, and accepts the terms and conditions of the Request For Quotation in full.

Bidders acknowledge that in completing this Bid Form, if both words and numerical figures are used and do not agree, the words shall take precedence over the numerical figures.

Bidders must be prepared, if required, to present evidence of experience, ability, service facilities and financial standing necessary to meet satisfactorily the requirements set forth or implied in the Request For Quotation document.

**Pricing:**

Bids shall be for a firm fixed price without escalator clauses or other qualifications for the entire term of the Contract. Bidders are required to show unit prices, with extensions and totals. The unit cost pricing shall include: (a) labour; (b) materials; (c) equipment; (d) disbursements; and (d) any duty and excise taxes; but shall exclude Harmonized Sales Tax.

Each Bidder acknowledges that in the event the total amount bid for an item does not agree with the extension of the quantity and the Bidder's unit price, the unit price shall govern and the extended total amount and total price shall be corrected accordingly by the Region.

Each Bidder acknowledges that where the total price does not agree with the sum of the extended amounts bid for the individual items, the amounts bid for the individual items shall govern and the total price shall be corrected accordingly by the Region

The quantities outlined in this Request For Quotation are an estimate of the Region's requirements and the Region does not guarantee that the quantities outlined in this Request For Quotation shall be required by the Region from the Consultant. In the event that the Contract requirements exceed the quantities outlined in this Request For Quotation, the Region shall pay the Consultant for such item(s) exceeding the quantities outlined in this Request For Quotation at the unit prices submitted in the Bid Form. As actual quantities may vary, the Bidders are to take this into consideration when submitting their Bids. Individual delivery quantities shall be as directed by the Region. Any qualifications to pricing shall result in rejection of that bid. All pricing shall be expressed in Canadian currency.

In the event that Contract requirements exceed the quotation quantities, payment for such item(s) exceeding the quotation quantity will be made at the quoted unit prices for the item(s).

#### **Taxes Under this Contract:**

Payments for all Work performed under this Contract shall be subject to Harmonized Sales Tax, as applicable, only. The Bidder's GST/HST Registration Number shall be inserted in the space provided on the signature page of the Bid Form.

Invoices that do not include the appropriate sales tax or do not include the GST/HST Registration Number will be returned without payment until the required information has been provided.

Where a change in Canadian Federal or Provincial taxes occurs after the closing date for this RFP, and this change could not have been anticipated at the time of bidding, the Region will increase or decrease Contract payments to account for the exact amount of tax change involved.

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Claims for compensation for additional tax cost shall be submitted by the Bidder to the Supplies & Services Branch for review and consideration. Such claims for additional tax cost shall be submitted before payment has been made.

Where the Bidder benefits from a change in Canadian Federal or Provincial Government taxes, the Bidder shall submit to the Region a statement of such benefits. This statement shall be submitted before the final payment is made.

The Region reserves the right to make deductions from payments to compensate for the estimated benefit from decreased tax costs. Such deductions will be set-off from payments pending receipt of the statement itemizing the benefits which have resulted from a decrease in tax costs at which time the final payment adjustment will be determined.

**Costs Incurred by Bidders:**

All expenses involved with the preparation and submission of bids to the Region, or any work performed in connection therewith shall be borne by the Bidder. No payment will be made for any bids received, nor for any other effort required of, or made by, the Bidder prior to the commencement of the work described in the Request For Quotation.

## **APPENDIX E**

### **Terms and Conditions of Consulting/Audit Services Agreement**

#### **1.0 Purchasing By-law:**

Request For Quotations will be called, received, evaluated, accepted and processed in accordance with the Region's Purchasing By-law and Tendering/Proposal Procedures. By submitting a bid in response to this Request For Quotation, the Bidder agrees to be bound by the terms and conditions of such By-law and Procedures and any amendments from time to time, as fully as if they were incorporated herein.

To view a copy of the Region's Purchasing By-Law:

Go to <http://www.york.ca>

Click Regional Government

Click By-Laws

Click file name 'Providing for the Purchases of Goods and Services.pdf' which is found under Purchasing.

Bidders are advised that, unless otherwise permitted by the Region's Purchasing By-law, no bid shall be accepted from, nor shall any contract be awarded to, any Bidder with whom the Region is engaged in unresolved litigation.

The Region reserves the right to remove from eligibility to submit bids for an indeterminate period, any Bidder, or related company, who fails to accept a Contract, or the name of any Consultant, or related company, who demonstrates unsatisfactory performance of the Contract.

#### **2.0 Amendments to Solicitations:**

Any information or changes to the requirements of this Request For Quotation will be emailed to solicited bidders in the form of an addendum.

The onus remains with Bidders to ensure that they have reviewed all Addenda posted prior to submission of their Bid.

**The Region will not be liable for misdirected notices of solicitations or for misdirected notices of Addenda which may result from Registered Vendors who fail to update their contact information.**

In the event that this solicitation is amended via addendum, all terms and conditions, which are not modified, shall remain unchanged.

Each Bidder shall acknowledge receipt of any addenda to this solicitation by initialling in the appropriate space provided on the Bid Form, if applicable. **Where there is no evidence of receipt of Addenda, the Proposal will be rejected.**

### **3.0 Bid Deposit:**

A bid deposit is not required for this Request For Quotation.

### **4.0 Performance Security**

A Performance bond is not required for this Request For Quotation

### **5.0 Irrevocability Period**

All Bids shall remain valid for acceptance within thirty (30) days from the Request For Quotation closing date specified in the "Information For Bidders".

### **6.0 Blackout period**

The Region prohibits communications with respect to this Request For Quotation initiated by a Bidder to any Regional official, consultant or employee for the period of time from the closing of the Request For Quotation up to and including the date that the Contract has been awarded (the "Black Out Period"). Any communication between the Bidder and the Region during the Blackout Period will be initiated by the Region for the purpose of obtaining information or clarification necessary in order to ensure a proper and accurate evaluation of the bid. Any communication initiated by a Bidder during the Blackout Period may be grounds for disqualifying the offending Bidder from consideration for the Contract award and/or any future Regional Request For Quotations.

### **7.0 Award**

The Region may, in its sole discretion, reject or retain for its consideration bids which are non-conforming because they do not contain the content or form required by the Request For Quotation documents or for failure to comply with the submission process set out in the Information for Bidders.

In the event that the Region, at its sole discretion, deems any items bid to be unbalanced, the bid may be deemed informal and rejected.

The Region reserves the right to reject, in whole or in part, any or all bids, including without limitation the lowest bid, or to accept any bid, in whole or in part, that the Region in its sole and absolute discretion deems appropriate, notwithstanding any custom of the trade to the contrary nor anything contained in the Request For Quotation documents.

The Region reserves the right to reject any and all bids in whole or in part, and to waive any technical defects, irregularities and omissions if, in so doing, the best interests of the Region will be served.

The placing in the mail to the address given in its bid, or delivery, of a notice of award to a Bidder will constitute notice of acceptance of a Contract by the Region. When so requested by the Region, the Consultant shall execute a formal Contract with the Region for the complete performance specified therein.

### **8.0 Examination of Site**

Prior to submitting a Bid, it is the responsibility of the Bidder to thoroughly acquaint themselves with the Request For Quotation documents and to carefully examine the site where the Work of this Contract shall be performed (if applicable), fully inform themselves of the existing conditions and limitations, and include in their bid price, a sum to cover the cost of all items contemplated in the Contract. No allowance shall be made subsequently with respect to any error or negligence on the Bidder's part or for any expressed or implied misunderstanding of the terms and conditions of this Request For Quotation. Accommodations can be made to allow bidders to visit the sorting site if a formal request is made via email to \_\_\_\_\_ by the bidder at a date and time deemed acceptable by a Region representative.

### **9.0 Communications and Clarifications**

It is the responsibility of the Bidder to seek clarification of any matter that they consider unclear before submitting a bid. The Region is not responsible for any misunderstanding of the Request For Quotation on the part of the Bidder.

Inquiries regarding the Request For Quotation should be directed to:

Contact

Telephone:

Email:

Verbal clarifications will not be interpreted to change the terms of the Request For Quotation.

### **10.0 Compliance with Laws**

In the preparation of its bid, and in the performance of any Contract that results from this Request For Quotation, and in every activity in connection therewith, Bidders shall comply fully with all applicable laws, ordinances, rules and regulations, whether Federal, Provincial or Municipal and all applicable Regional policies.



All work performed under this Contract must be carried out in accordance with the terms and conditions of the Occupational Health & Safety Act, as amended.

The Consultant shall comply with the requirements of the Workplace Hazardous Materials Information System (WHMIS) regarding the use, handling, storage, and disposal of hazardous materials; and regarding the labelling and the provision of Material Safety Data Sheets (MSDS).

### **11.0 Municipal Freedom of Information and Protection of Privacy Act (MFIPPA)**

In accordance with the Municipal Freedom of Information and Protection of Privacy Act, the personal information Bidders provide in response to this Request For Quotation is being collected under authority of the Municipal Act and will be used exclusively in the selection process. All bids submitted shall become the property of the Region. In accordance with the requirements of MFIPPA, Bidders are reminded to identify in their submission material, any specific scientific, technical, commercial, proprietary, or similar confidential information, the disclosure of which could cause them injury. Complete bids are not to be identified as confidential. Should Bidders have any questions in this regard, please consult the Region's Information and Privacy Officer in the Office of the Regional Clerk at 905-895-1231.

### **12.0 Indemnification**

The Consultant shall indemnify and hold harmless the Region, its officers, council members, partners, agents and employees from and against all actions, claims, demands, losses, costs, damages, suits or proceedings whatsoever which may be brought against or made upon the Region and against all losses, liabilities, judgments, claims, suits, demands or expenses which the Region may sustain, suffer or be put to resulting from or arising out of the Consultant's omissions, or failure to exercise reasonable care, skill or diligence in the performance or rendering of any work or service required hereunder to be performed or rendered by the Consultant, its agents, officials and employees. This indemnification shall include any legal costs incurred by the Region on a substantial indemnity basis, including those incurred to defend any criminal prosecutions against the Region resulting from the actions of the Consultant.

### **13.0 Insurance**

Without restricting the generality of the section on Indemnification, the Consultant shall obtain, maintain, pay for and provide evidence of insurance coverage, taken out with insurance companies licensed to transact business in the Province of Ontario and not otherwise excluded by the Region's Insurance and Risk Manager.

#### **13.1 Commercial General Liability Insurance**

Commercial General Liability insurance shall include as an Additional Insured, the Region, with limits of not less than \$5 million (\$5,000,000.00) inclusive per occurrence for bodily and personal injury, death and damage to property including loss of use hereof. The Commercial General Liability (CGL) insurance will include Cross Liability &

Severability of Interest Clauses, Products & Completed Operations coverage and Standard Non-Owned Automobile endorsement including standard contractual liability coverage.

The Region shall accept in place of the above mentioned insurance coverage, a combination of primary liability limits and umbrella insurance or excess liability limits which meet the CGL coverage and general aggregate limits noted above.

### 13.2 Automobile Liability Insurance

Automobile Liability Insurance in respect of licensed vehicles shall have limits of not less than \$2 million (\$2,000,000.00) inclusive per occurrence for bodily injury, death and damage to property. Coverage shall be in the form of a standard owner's form automobile policy providing third party liability and accident benefits insurance and covering licensed vehicles owned or leased or operated by or on behalf of the Consultant.

Applicable to all insurance:

The forms of these insurance policies shall in all respects be satisfactory to the Region's Insurance and Risk Manager and shall be maintained continuously from either the commencement of the services or the signing of this agreement, whichever is sooner and until the contract has been completed or successfully executed to the satisfaction of the Region. The policies shall be endorsed to provide the Region with not less than 30 days written notice in advance of any cancellation, change or amendment restricting coverage.

All of the above Insurance is to be outlined, by the Consultant only, on the Region's standard "Certificate of Insurance" form.

### **14.0 Workplace Safety and Insurance Board (WSIB)**

The Consultant must be in good standing with the Workplace Safety and Insurance Board and shall furnish the Region with satisfactory evidence, in the form of a valid WSIB Clearance Certificate, prior to commencement of the work under this Contract and, upon presentation of a final invoice and at any other time during the Contract at the Region's request.

If the Successful Bidder is a Sole Proprietor, an Independent Operators Ruling is required. The Successful Bidder shall download the Form that corresponds to the classification of Work for which this bid is the subject from the Workplace Safety and Insurance Board site at: <http://www.wsib.on.ca/wsib/wopm.nsf/Public/120201> and submit the completed form to WSIB to receive the Independent Operators Ruling. The WSIB Ruling is to be submitted to the Region prior to commencement of the Work.

The Consultant shall maintain its WSIB Insurance or pay such assessments as will protect the Consultant and the Region from claims under Workplace Safety and Insurance Act, and, from any other claims for damage from personal injury, including

death, and from claims for property damage which may arise from the Consultant's operations under this Contract.

Where the Consultant is not providing a Workplace Safety and Insurance Board Clearance Certificate, Employers Liability insurance in the amount of \$2 million (\$2,000,000.000) is required. Evidence of this coverage to be included on the Region's certificate of insurance.

### **15.0 Contract**

This Request For Quotation, including the Information for Bidders, the Bid Form, all terms and conditions, specifications and any special provisions, covers the Region's requirements for the performance of the work specified in this Request For Quotation. A purchase order will be issued to the Consultant against which releases will be made directly by the appropriate Regional department.

### **16.0 Workplace Safety and Insurance Board (WSIB)**

The Consultant must be in good standing with the Workplace Safety and Insurance Board and shall furnish the Region with satisfactory evidence, in the form of a valid WSIB Clearance Certificate, prior to commencement of the work under this Contract and, upon presentation of a final invoice and at any other time during the Contract at the Region's request.

If the Successful Bidder is a Sole Proprietor, an Independent Operators Ruling is required. The Successful Bidder shall download the Form that corresponds to the classification of Work for which this bid is the subject from the Workplace Safety and Insurance Board site at: <http://www.wsib.on.ca/wsib/wopm.nsf/Public/120201> and submit the completed form to WSIB to receive the Independent Operators Ruling. The WSIB Ruling is to be submitted to the Region prior to commencement of the Work.

The Consultant shall maintain its WSIB Insurance or pay such assessments as will protect the Consultant and the Region from claims under Workplace Safety and Insurance Act, and, from any other claims for damage from personal injury, including death, and from claims for property damage which may arise from the Consultant's operations under this Contract.

Where the Consultant is not providing a Workplace Safety and Insurance Board Clearance Certificate, Employers Liability insurance in the amount of \$5 million (\$5,000,000.000) is required. Evidence of this coverage to be included on the Region's certificate of insurance.

### **17.0 Contract**

This Request For Quotation, including the Information for Bidders, the Bid Form, all terms and conditions, specifications and any special provisions, covers the Region's

requirements for the performance of the work specified in this Request For Quotation. A purchase order will be issued to the Consultant against which releases will be made directly by the appropriate Regional department.

### **18.0 Terms of Payment**

The Region shall make payment in response to invoices itemized in accordance with the Contract, provided that the invoices are based on Work/deliverables described in the scope of the Work, are consistent with the timetable of each negotiated deliverable, and are completed to the Region's satisfaction. The Region will not make payment if the Consultant is deemed by the Region to be in default of any of its obligations under the Contract.

The Region shall endeavour to make payments promptly, however, under no circumstances shall the Consultant be entitled to any interest for any delays in payments by the Region.

In its effort to meet strategic goals in the delivery of its core services, the Region of York has moved to an electronic payment process. All payments will be made via Electronic Funds Transfer (EFT) directly into the Bidder's preferred bank account. The Consultant (if any), shall complete the EFT form provided in the Request For Quotation package after notification of Contract award.

Where there is a question of non-performance involved, payment in whole or in part to the Consultant may be withheld. In the event of non-performance, the Region may also deduct/charge back any costs which the Region may incur as a result of the Consultant's non-performance, from any monies owing to the Consultant. In the event that any discount predicated on specific payment terms (including payment within a certain period of time) is involved, the withholding of payment as provided herein shall not deprive the Region from the benefit of such discount.

All charges against a Consultant shall be deducted from current obligations that are due or may become due. In the event that collection is not made in this manner the Consultant shall pay the Region, on demand, the amount of such charges, plus any applicable interest incurred by the Region.

### **19.0 Non-Exclusive**

Any Contract awarded as a result of this Request For Quotation will be non-exclusive. The Region may at its sole discretion, purchase the same or similar services from other sources during the term of the Contract.

### **20.0 Contract Termination**

In the event that the Consultant, in the opinion of the Region, fails to satisfactorily perform the services in accordance with the terms and conditions of the Contract, including the Information for Bidders, Bid Form, Specifications and any other terms and conditions as stated herein, the Region reserves the right to terminate the Contract without prior notice to the Consultant. Furthermore, the Region at its sole discretion,

reserves the right to terminate the Contract without showing cause, prior to its conclusion, upon giving at least thirty (30) days written notice to the Consultant.

The Region shall pay all reasonable costs incurred by the Consultant up to the date of termination, less any excess costs incurred by the Region in re-procuring and completing the work where the termination is for cause. However, in no event shall the Consultant be paid for any amount that exceeds the price of the agreed fee for the work performed. The Consultant will not be entitled to, or reimbursed for, any profits which may have been anticipated but which have not been earned up to the date of termination.

### **21.0 Errors & Omissions**

The Region shall not be held liable for any errors or omissions in any part of this Request For Quotation. While the Region has used considerable effort to ensure an accurate representation of information in this Request For Quotation, the information contained in the Request For Quotation is supplied solely as a guideline for Bidders. The information is not guaranteed or warranted to be accurate by the Region, nor is it necessarily comprehensive or exhaustive. Nothing in the Request For Quotation is intended to relieve the Bidders from forming their own opinions and conclusions with respect to the matters addressed in the Request For Quotation.

### **22.0 Confidentiality**

The Consultant further acknowledges that all reports, data, documents, materials and information of any kind whatsoever prepared in the course of carrying out this project are the sole and exclusive property of the Region and shall not be disclosed or released to any person or organization without the prior written consent of the Region. Any breach of this requirement for confidentiality may result in the Contract being terminated and may also result in damages being assessed and applied by the Region against any amounts owing to the Consultant under the Contract.

### **23.0 Potential for Conflicts of Interest**

Each Bidder, in their bid, shall declare all conflicts of interest or any circumstance that may be reasonably perceived as a conflict of interest that exists now, or may exist in the future. Failure to comply with this requirement will render the bid non-compliant and will cause the bid to be rejected.

The Region reserves the right to disqualify from further consideration bids which in the Region's opinion demonstrate a conflict of interest.

A conflict of interest arising during the term of contract must be reported immediately to the Region's project manager; failure to advise the Region may result in cancellation of the contract.

### **24.0 Collusion**

Bidders, by submitting their bid, declare that the bid is not made in connection with any other Bidder submitting an offer for the same services and is, in all respects, fair and without collusion or fraud.

### **25.0 Performance Evaluation**

Bidders are advised that the Region may implement a Consultant Performance Evaluation System during the course of, or at the conclusion of, this Contract, for the purpose of monitoring and evaluating the performance of the Consultant. Bidders agree to participate in, and provide any input or assistance as may be required by the Region in order to implement such an evaluation system.

### **26.0 Force Majeure**

Both the Region and the Consultant shall not be held liable for any losses resulting if the fulfilment of the terms of the Contract shall be delayed or prevented by wars (whether war has been declared or not), acts of public enemies, strikes, fires, floods, acts of God, or for any other cause not within the control of the Consultant or the Region and which, by the exercise of reasonable diligence, the Consultant or the Region is unable to prevent. However, lack of finances or shortage of labour is not Force Majeure. Should the performance of the Contract be delayed or prevented as herein set forth, the party that encounters such difficulty agrees to give immediate written notice and explanation of the course and probable duration of any such delay to the other party. The Region and the Consultant shall use their reasonable commercial efforts to manage the work to minimize delays caused by any events that are referred to in this paragraph

### **27.0 Joint/Consortium Quotations**

Joint or consortium Request For Quotations must have one prime who will be responsible for overall project success, provide one point of contact and a single billing point.

### **28.0 Inspection of Books, Payrolls, Accounts and Records**

The Region and/or the Ministry of Labour shall have the right to audit all books and records (in whatever form they may be kept, whether written, electronic or other) relating or pertaining to the Contract (including any and all documents and other materials, in whatever form they may be kept, which support or underlie those books and records), kept by or under the control of the Successful Bidder, including, but not limited to those kept by the Successful Bidder, its employees, agents, assigns, successors and Subcontractors. The Successful Bidder shall maintain and preserve all original books and records, together with such supporting or underlying documents and materials, for the duration of the Contract and for at least two years following the



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completion of the Contract, including any and all renewals thereof. The books and records, together with the supporting or underlying documents and materials shall be made available, upon request, to the Region, through its employees, agents, representatives, contractors or other designees, during normal business hours at the Successful Bidder's office or place of business, and the Successful Bidder shall supply certified copies of payrolls and any other records required by the Region as and when called for. In the event that no such location is available, then the books and records, together with the supporting or underlying documents and records, shall be made available for audit at a time and location in The Regional Municipality of York, Ontario, which is convenient for the Region.

The above shall not be construed to limit, revoke, or abridge any other rights, powers, or obligations relating to audit which the Region may have by Federal, Provincial, or Municipal statute, ordinance, regulation, or agreement, whether those rights, powers, or obligations are express or implied.



# **Appendix D**

## **Food Waste Survey Materials**

# ENVIRONICS

## RESEARCH

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### Peel Region Food Waste Survey Draft (2) Questionnaire

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#### Introduction

Good morning/afternoon/evening. My name is \_\_\_\_\_ and I am calling from the Environics Research Group, a public opinion research company. Today we are conducting a study with people living in Peel Region about an important issue facing the community. Please be assured that we are not selling or soliciting anything and all information you provide will be kept confidential.

[IF ASKED: The survey should take no more than 15 minutes to complete]

[IF ASKED: The survey is being sponsored by Peel Region]

[IF ASKED: The registration system has been created by the Canadian survey research industry to allow the public to verify that a survey is legitimate, get information about the survey industry or register a complaint. The registration system's toll-free telephone number is 1-888-602-6742, extension 8728].

We choose telephone numbers at random and then select one person from each household to be interviewed. To do this, we would like to speak to the person in your household, 18 years of age or older, who has had the most recent birthday. Would that be you?

IF PERSON SELECTED IS NOT AVAILABLE, ARRANGE FOR CALL-BACK

IF PERSON SELECTED IS NOT AVAILABLE OVER INTERVIEW PERIOD, ASK FOR PERSON WITH NEXT MOST RECENT BIRTHDAY

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#### Screening

- 1. First may I ask, are you, or is any member of your household or your immediate family, currently employed by a municipal government department or agency in the Region of Peel (IF ASKED: including Mississauga, Brampton or the Town of Caledon)?**

01 – Yes	THANK AND TERMINATE
02 – No	
97 – REFUSE	THANK AND TERMINATE
99 – DK/NA	

**2. Because we are doing a representative survey of people all over Peel Region, may I have your postal code?**

INTERVIEWER CAN ACCEPT FIRST THREE DIGITS IF ALL SIX REFUSED

\_\_\_\_ \_ Postal code  
97 – REFUSE      THANK AND TERMINATE

**2B - COMMUNITY**

- 01 – Mississauga
- 02 – Brampton
- 03 – Town of Caledon

**RECORD:**

**3. GENDER**

- 01 – Male
- 02 – Female

**4. In what year were you born?**

\_\_\_\_\_ Year  
9999 – REFUSE/NA

**5. And how many people live in your household?**

- 01 – One
- 02 – Two
- 03 – Three
- 04 – Four
- 05 – Five
- 06 – Six or more
- 9999 – REFUSE/NA

ASK IF >1 AT Q5

**6. Are there any children currently living in your household who are in the following age groups?**

**READ LIST -RECORD ONE RESPONSE FOR EACH  
IF RESPONDENT SAYS NO CHILDREN IN HOUSEHOLD – ENTER 02 FOR EACH WITHOUT PROBING**

Under 6 years of age  
6 to 12  
13 to 17

- 01 – Yes
- 02 – No
- 99 – REFUSAL

*I'd like to start by asking you about meal planning and preparation in your household...*

IF ONLY ONE PERSON IN HOUSEHOLD IN Q5 DO NOT ASK Q7-10, RECORD SELF PRIMARILY RESPONSIBLE FOR ALL AND SKIP TO Q11

Are you primarily responsible, or do you share responsibility for, any of the following tasks for your household? IF SOMEONE ELSE OR SHARED: could you please let me know the gender of the (other) person who is responsible?

READ

- 7. Meal planning, including shopping lists**
- 8. Grocery shopping**
- 9. Meal preparation and cooking**
- 10. Meal clean up and fridge clean out**

**DO NOT READ RESPONSE CATEGORIES. CODE ONE FOR EACH**

- 01 – Self primarily responsible
- 02 – Someone else (female) primarily responsible – e.g. wife/female partner
- 03 – Someone else (male) primarily responsible – e.g. husband/male partner
- 04 – Share responsibility with someone else (female) – e.g. wife/female partner
- 05 – Share responsibility with someone else (male) – e.g. husband/male partner
- 99 – Don't know / No answer

- 11. Which of the following best describes how (IF ONE PERSON IN HOUSEHOLD: you most often shop for groceries) (IF MORE THAN 1 PERSON IN HOUSEHOLD: you or the primary shopper most often shops for groceries?)**

**READ – CODE ONE**

- 01 – Create a shopping list and usually buy those items on the list
- 02 – Go to the store without a list and shop spontaneously
- 03 – Create a basic list, but fill in with other groceries based on what appeals in the moment.

VOLUNTEERED

- 04 – Varies/combination
- 99 – Don't know / No answer

- 12. How frequently (IF ONE PERSON IN HOUSEHOLD: do you usually shop for groceries?) (IF MORE THAN 1 PERSON IN HOUSEHOLD: is grocery shopping usually done for your household?)**

**DO NOT READ. CODE ONE**

- 01 – More than once a week
- 02 – Once a week
- 03 – Every two weeks or so
- 04 – Less frequently than every two weeks
- 99 – DK/NA



- 13. Do you usually plan most of your week’s worth of meals in advance, plan some meals, or usually not plan meals in advance?**

CODE ONE

- 01 – Plan most meals
- 02 – Plan some meals
- 03 – Don’t usually plan meals in advance
- VOLUNTEERED
- 05 – Varies
- 99 – Don't know / No answer

ASK Q14 IF >1 PERSON IN HOUSEHOLD

- 14. And for *most* of your meals, does your family eat together, or do you eat meals at different times?**

CODE ONE

- 01 – Mostly eat together
- 02 – Mostly eat separate meals
- VOLUNTEERED
- 03 – Depends/varies (or: a combination of both)

- 15. Thinking about the meals you serve at home for breakfast, lunch and dinner, how often do they result in leftovers – often, sometimes, rarely or never?**

CODE ONE FOR EACH

- 01 – Often
- 02 – Sometimes
- 03 – Rarely
- 04 – Never
- VOLUNTEERED
- 05 – Depends/varies
- 99 – DK/NA

And using the same scale, how often do you typically eat *leftovers* for...?

CODE ONE

- 16. Breakfast**

- 17. Lunch**

- 18. Dinner**

- 01 – Often
- 02 – Sometimes
- 03 – Rarely
- 04 – Never
- VOLUNTEERED
- 05 – Depends/varies
- 99 – DK/NA

**19. IF 03 OR 04 AT ANY OF Q16-18: What is the main reason (IF ONE PERSON IN HOUSEHOLD: you) (IF MORE THAN 1 PERSON IN HOUSEHOLD: you or others in your household) would not eat leftovers?**

**DO NOT READ – CODE ANY THAT APPLY**

- 01 – Don't like repeats
- 02 – Leftovers go bad quickly
- 03 – Prefer freshly prepared food
- 04 – Don't often have leftovers/enough left over/we usually eat everything
- 05 – The kids don't eat leftovers but the adults/I do
- 98 – Other (PLEASE SPECIFY)
- 99 – DK/NA – **SINGLE MENTION**

*Now I would like to ask about how your household disposes of food waste. In these questions, "food waste" means any edible food that is not eaten, including leftovers and food that goes bad in storage.*

**20. How would you describe the amount of food waste your household produces in a typical week?**

**READ 01 TO 04- CODE ONE**

- 01 – Quite a lot
- 02 – A moderate amount
- 03 – Not very much, OR
- 04 – Little or none
- VOLUNTEERED
- 05 – Varies week by week
- 99 – DK/NA

**21. How do you typically dispose of food you are not planning to eat?**

IF RESPONDENT SAYS COMPOST, CLARIFY IF BACKYARD COMPOSTER OR THE PEEL REGION GREEN BIN

**DO NOT READ. CODE ALL THAT APPLY**

- 01 – Put it in the garbage
- 02 – Put it in the green bin – RECORD AS YES TO Q30
- 03 – Put it in a backyard composter
- 04 – Put it in a waste grinder or Garburator
- 05 – Depends – **SINGLE MENTION**
- 98 – Other (PLEASE SPECIFY)
- 99 – DK/NA – **SINGLE MENTION**

**22. What are the main reasons your household might sometimes throw out food that could have been eaten?**

**DO NOT READ – CODE ANY THAT APPLY**

INTERVIEWER: IF BUYS TOO MUCH, PROBE IF DUE TO PACKAGE SIZES OR SALE PRICES

INTERVIEWER: IF CONCERN ABOUT SAFETY OF FOOD PROBE IF RELATED TO EXPIRATION DATE OR BEST BEFORE DATE

- 01 – Buy too much/more than needed because of package sizes/portions/bulk purchasing
- 02 – Buy too much/more than needed because of sale prices
- 03 – Goes bad/spoils before we can eat it
- 04 – Past expiration date – concerns about food safety
- 05 – Past best before date – concerns about food safety
- 06 – Lose interest/don't like it/prefer something else
- 07 – Not able to eat it/schedules etc.
- 08– Hate leftovers
- 09 – Do not throw out food/have much food waste
- 98 – Other (PLEASE SPECIFY)
- 99 – DK/NA – **SINGLE MENTION**

**23. How concerned are you about the amount of edible food your household wastes?**

**READ 01 TO 04 – CODE ONE FOR EACH**

- 01 – Very concerned
  - 02 – Somewhat concerned
  - 03 – Not very concerned
  - 04 – Not at all concerned
- VOLUNTEERED
- 05 – We don't waste much food
  - 99 – DK/NA

Please indicate your level of agreement with the following statements.

**READ AND RANDOMIZE - CODE ONE FOR EACH**

24. **The most important reason to not waste food is because it is a waste of money.**
25. **Composting is good for the environment, so if food waste is composted, it's not really wasting it.**
26. **Wasting anything is bad, including food.**
27. **I was raised in a home where wasting food was considered a terrible thing to do.**
28. **People should not waste food because there are those who can't afford to eat the food you throw away.**
29. **Household waste of food is a minor issue; it's retail store and restaurant waste that is the real problem.**

- 01 – Strongly agree
- 02 – Somewhat agree
- 03 – Somewhat disagree
- 04 – Strongly disagree
- VOLUNTEERED
- 99 – Don't know / No answer

IF NOT CODE 02 AT Q21 ASK Q30

**30. Do you have access to the Peel Region Green Bin program?**

IF ASKED: The Green Bin program provided by Peel Region consists of collecting food waste in your home and depositing it in a green bin for weekly collection and processing into compost.

**CODE ONE**

- 01 – Yes
- 02 – No
- 99 – DK/NA

Here are some statements that might – or might not – convince people **to create less food waste**. Please indicate how convincing you think each is.

31. **The average Canadian household wastes one thousand, five hundred dollars of edible food annually.**
32. **Less than 30 percent of food waste in Peel Region goes in the green bin.**
33. **Food waste is a drain on natural resources and hurts the environment.**
34. **The amount of food that we waste each year could feed... SOCIAL COST TO BE CONFIRMED**

**CODE ONE FOR EACH**

- 01 – Very convincing
- 02 – Somewhat convincing
- 03 – Not very convincing
- 04 – Not at all convincing
- VOLUNTEERED
- 99 – DK/NA

When it comes to reducing the amount of food waste you generate, would your household find each of the following helpful or not?

**RANDOMIZE**

- 35. Meal planning templates that help create shopping lists
- 36. Information on portion sizing and how to buy the right amount of food
- ~~37. Information on the best food storage options for different types of food~~
- 38. Labels to stick on leftover packaging to show a “use by” date
- 39. Information on date labeling and how to tell if food is safe to eat
- 40. Creative ideas on how to use leftovers
- 41. Store displays about the shelf life and best storage options for the food you are buying

**CODE ONE FOR EACH**

- 01 – Yes, helpful
- 02 – No, not helpful
- 03 – Depends
- 99 – DK

- 42. Where would you be most likely to look for information on reducing household food waste?

**DO NOT READ – CODE ANY THAT APPLY**

- 01 – Media (TV, radio, newspapers)
- 02 – Online (PROBE FOR WEB SITE)
- 03 – Word of mouth (between friends, colleagues, etc.)
- 04 – Social media
- 05 – A government brochure
- 06 – Peel Region web site
- 07 – Signs and displays at stores where you shop for groceries
- 97 – Don’t need information on reducing food waste – **SINGLE MENTION**
- 98 – Other (PLEASE SPECIFY)
- 99 – DK/NA – **SINGLE MENTION**

## Respondent characteristics

Finally, I’d like to ask you a few questions about yourself that will help us analyze the results of this survey...

- 43. Which of the following best describes the dwelling in which you live?

**READ 01 TO 04 – CODE ONE ONLY**

- 01 – A detached single family dwelling
  - 02 – A semi-detached single family dwelling or duplex
  - 03 – A low rise townhouse or condo (up to 4 stories), or
  - 04 – A high rise apartment or condominium (5 plus stories)
- VOLUNTEERED

05 – Other (PLEASE SPECIFY \_\_\_\_\_)  
99 – DK/NA

**44. What is the highest level of education that you have reached?**

**DO NOT READ – CODE ONE ONLY**

01 – Some elementary (Grades 1 – 7)  
02 – Completed elementary (Grade 8)  
03 – Some high school (Grade 9 – 11)  
04 – Completed high school (Grade 12 or 13)  
05 – Some college, vocational or trade school  
06 – Completed Community college, vocational, trade school  
07 – Some university  
08 – Completed university (Bachelor’s Degree)  
09 – Post graduate/professional school (Master’s Degree or PhD)  
10 – No schooling  
99 – Don’t know/Refused

**45. Which of the following best describes your own present employment status?**

**READ – PROBE FULL OR PART-TIME HOURS**

01 – Working full-time  
02 – Working part-time  
03 – Unemployed or looking for a job  
04 – Self-employed  
05 – Stay at home full-time  
06 – Student, or  
07 – Retired  
VOLUNTEERED  
99 – REFUSAL

**46. How long have you lived in Peel Region?**

\_\_\_\_\_ Number of years  
9998 – All my life (=AGE)  
9999 – REFUSE/NA



**47. Are you an active member of any social media networks? If YES, which ones?**

**DO NOT READ – CODE ALL THAT APPLY**

- 01 – Twitter
- 02 – Facebook
- 03 – Flickr
- 04 – Linked In
- 05 – You Tube
- 06 – My Space
- 07 – Google +
- 08 – Instagram
- 09 – Pinterest
- 77 – Other (please specify)
- 99 – None/No response – **SINGLE MENTION**

**48. For statistical purposes only, we need information about your income. All individual responses will be kept confidential. Please tell me which category applies to your total household income before taxes for 2014.**

**READ – STOP AS SOON AS RESPONDENT CONFIRMS CATEGORY**

- 01 – Under \$40,000
- 02 – \$40,000 to under \$60,000
- 03 – \$60,000 to under \$80,000
- 04 – \$80,000 to under \$100,000
- 05 – \$100,000 or more
- VOLUNTEERED
- 99 –Don't know / No answer

This completes the survey. Thank you very much for your participation.

In case my supervisor would like to verify that I conducted this interview, may I please have your first name?

First Name: \_\_\_\_\_



# **Appendix E**

## **Contact List**

First Name	Last Name	Organization	Email Address
Anne	Boyd	City of London	<a href="mailto:aboyd@london.ca">aboyd@london.ca</a>
Willma	Bureau	County of Simcoe	<a href="mailto:willma.bureau@simcoe.ca">willma.bureau@simcoe.ca</a>
Vivian	DeGiovanni	City of Guelph	<a href="mailto:vivian.degiovanni@guelph.ca">vivian.degiovanni@guelph.ca</a>
Jillian	Fairchild	Simcoe County	<a href="mailto:jillian.fairchild@simcoe.ca">jillian.fairchild@simcoe.ca</a>
Karyn	Hogan	City of Guelph	<a href="mailto:karyn.hogan@guelph.ca">karyn.hogan@guelph.ca</a>
Hordowick	Julie	York Region	<a href="mailto:julie.hordowick@york.ca">julie.hordowick@york.ca</a>
Risha	Manak	Peel Region	<a href="mailto:risha.manak@peelregion.ca">risha.manak@peelregion.ca</a>
Myron	McLelland	York Region	<a href="mailto:myron.mclelland@york.ca">myron.mclelland@york.ca</a>
Kate	Parizeau	University of Guelph	<a href="mailto:kparizea@uoguelph.ca">kparizea@uoguelph.ca</a>
Michael	von Massow	University of Guelph	<a href="mailto:mvonmass@uoguelph.ca">mvonmass@uoguelph.ca</a>
Laurie	Westaway	Wasteaway	<a href="mailto:laurie@westaway.ca">laurie@westaway.ca</a>