

Introduction to the Guide

This Guide uses a waste audit approach to waste-resource assessment and is an important first step towards a comprehensive waste reduction program for your organization. It will help you and your organization assess your current generation of solid waste and to plan the changes necessary to comply with the provincial regulations.



The Mi'kmaq believe in Netukulimk -Take what is needed and waste nothing



This guide is based on the traditional method of assessing solid waste generation within an organization -- sorting and weighing the materials generated as waste.

The goal is to produce fairly accurate estimates of the amount of materials available for source reduction, re-use, recycling and composting initiatives.

However, it does require the following:

- a "champion" within the organization to lead the process;
- the support of management;
- the participation of key staff representatives in a series of 2 or 3 meetings;
- the dedication of one or two employees (depending on the size of the organization) for a couple of weeks to sort and weigh the waste and to summarize the results; and,
- a "buy-in" to the plan from most or all of the employees in the organization if the program is to be successful over the long term.



INTRODUCTION TO THE GUIDE

Materials banned from landfill

- Redeemed beverage containers
- Corrugated cardboard
- Electronics
- Newsprint
- Lead-acid automotive batteries
- Leaf and yard waste
- Scrap tires
- Waste paint
- Ethylene glycol (automotive anti-freeze)
- Steel/tin food containers
- Low-density polyethylene (HDPE) bags & packaging
- Compostable organic material



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Get commitment of resources including one or two employees*, and buy-in from management. Develop a draft letter of support for management's signature that can be used as a communication tool to other employees

SET UP A WORKING GROUP

Send out the signed management letter to all departments and set a date for the first meeting with the agenda to discuss the audit and intention to develop a Waste Reduction Action Plan using the assessment data. Seek to invite a representative from each department to attend, and ask a member of the janitorial staff to attend as they have a crucial role in handling the waste produced.

7 PLAN YOUR WASTE AUDIT

Decide the following in advance of your first meeting:

- How, when, and how often to sample the waste stream
- How to collect the samples, and how to label them for identification purposes (you will need to know where the materials came from within the organization)
- who will be doing the weighing and sorting. Have the plan ready before your first meeting with the working group in order to secure their cooperation in the collection of samples.

*The employees selected to conduct the audit do not require any special qualifications or background. They must be willing to follow instructions carefully, and be prepared to sort through some unpleasant materials.

9 Basic Steps to Implementing a Waste Reduction Action Plan



HOLD THE FIRST MEETING

- Discuss the purpose of the meeting with everyone.
- Introduce the person(s) who will be conducting the audit and discuss the method that you have chosen for collecting the samples and marking them for identification purposes
- Discuss the roles of each of the members of the working group in assisting with this process (the custodial representative may be a key person in this discussion, depending on the system you have selected for collecting the samples).
- Review your current system of collection: which materials (if any) are currently recycled or composted; how do the collection systems for waste and recyclables work; how many containers are there for each material and where are they situated; etc.

CONDUCT THE WASTE AUDIT

The audit may take several days or weeks to conduct, depending on how you decide to sample the waste. Samples should be taken to an area where there is room to spread a plastic sheet on the floor (or a large table) where the material is then sorted and weighed by type (organic, corrugated cardboard, polystyrene, etc.) and by source (cafeteria, administration, shop floor, etc.) The results are recorded on copies of Worksheet 1 (Use separate worksheets for each source location).

9 Basic Steps to Implementing a Waste 06 **Reduction Action Plan**

ANALYZE THE DATA

Collect all the worksheets from the auditors. Use the data and information in this document to form some preliminary recommendations (e.g., develop a composting program, develop a system to re-use packaging, etc.).



7 HOLD THE SECOND MEETING

Make a brief presentation on findings to the working group and share the data collected along with your preliminary recommendations. Get the group's feedback and ask for ideas to be submitted to you. Schedule a third meeting to finalize a Waste Reduction Action Plan.

O DO ROUGH DRAFT OF ACTION PLAN

Use the results of the second meeting and the ideas sent in by the representatives to develop a rough draft of a Waste Reduction Action Plan. This could consist of a brief description of the initiatives to be undertaken, along with a schedule and milestones. Send this Waste Reduction Action Plan to all representatives in advance of the third meeting.

HOLD THIRD AND FINAL MEETING

The goal of this meeting is to finalize the Waste Reduction Action Plan and to discuss implementation. The group should decide on responsibilities and finalize the timelines. Finally, set a date in the future to meet and evaluate the program.

9 Basic Steps to Implementing a Waste Reduction Action Plan



How select your samples

You want to be sure that the figures you end up with are reasonably accurate. Think about how the rate of waste generation at the facility varies over the course of a day, week, month and year. Your samples should be representative, either individually or in sum total, of the total waste generated by the facility annually. Are there certain times of the year (e.g., the Christmas season) when more waste is generated? Does the flow of waste have a daily or weekly pattern? These answers will help to determine how to select your samples.

If waste generation is fairly constant and evenly distributed over time,

• pick two or three sample periods e.g., three 24-hour days) over the course of a business cycle one week. Collect all of the waste during the sample period.

If your facility tends to have maximum and/or minimum days of the week of waste generation

• (e.g., grocery stores often generate the most waste on Mondays), you might sample on a maximum day, a minimum day, and on an average day (again, collecting all of the waste for these periods). You could use the average day for your projections and adjust up or down depending on the results of the maximum and minimum-day samples. Alternatively, you could sample only on the maximum and minimum days and treat the resulting figures as upper and lower limits, taking an average to represent your overall generation.

If waste generation typically varies over the course of the year

• If, you could choose a period that lies somewhere in the middle. Sample a few times during that period and consider the results to be an average rate of generation. If you were concerned about upper limits (because of contract agreements, container capacity, etc.), you could also sample during the high generation period, so that you could plan for peak periods.



How to collect your samples

You have two objectives to consider in setting up a system to collect the samples for theaudit:

OBJECTIVE 1

• The samples should consist of all of the waste generated over exactly the time period specified (e.g., 24 hours). This means that all staff handling the waste, either as generators or collectors, must be aware of the sampling process and be prepared to cooperate in carrying it out.

OBJECTIVE 2

• Each bag or container of waste constituting the sample should be identified with respect to its source. Each department within the facility could be issued stickers, tags, or different coloured bags to use during the sample period. It is very important to be able to identify each bag or container's source, so that the Waste Reduction Action Plan can target waste streams in particular departments (e.g., fine paper from administration, food wastes from the cafeteria).

The actual means of collecting the sample will depend on the current waste collection system within your facility. You should work out your plan in consultation and cooperation with your custodial staff or contractors. This should be done in advance of the first meeting in order to facilitate discussion.

Equipment you will need

- a pair of rubber gloves for each auditor (you may want to provide overalls to help keep workers clean);
- a set of scales suitable for weighing bags or containers of materials;
- a tarp or plastic sheet for spreading and sorting the waste;
- several copies of Worksheet 1 in Appendix A (one copy for each department, plus a few extras);
- a container or extra bags for weighing the sorted materials;
- a table on which to spread the tarp and sort the waste (optional- can be done on floor);
- use a knife to open bags;
- beware of cross contamination on your pens and notebooks you are using;
- follow your safe work practises;
- do not reach in past visible layer for bag inspections.







Examples based on findings

THIGH LEVELS OF CONTAMINATION

- When recyclable items cannot be rinsed out before disposal
- Wishcycling throwing questionable items in the recycling bin, hoping they can be recycled
- Masks put in recycling bags instead of garbage

7 PLASTICS IN THE ORGANICS STREAM

- Coffee pods
- Takeaway cups that have a plastic lining

7 RECYCLABLES IN OTHER STREAMS

- Cardboard needs to be considered a separate stream for disposal. It is banned from landfill.
- Battery disposal in the waste stream. Have a plastic
- High levels of paper in both recycling and waste streams
- Electronics disposal having a dedicated disposal bin or box for these items.

ORGANICS IN THE WASTE STREAM

- Coffee grounds and filters
- Paper towel
- Brown bags from takeaway food

Suggestions to reduce waste

Ensure that there are waste stations set up in the right areas with the correct signage*. Post a sorting guide* for information.

Reduce

- Double sided photocopying
- Bring your own reusable coffee mug
- Promote litterless lunches
- Use drip coffee machines instead of coffee pods

Reuse

- Reuse blank photocopy paper for drafts or notes
- Reuse office supplies like paper clips and file folders
- Provide reusable utensils in your lunch room

Recycle

- Provide recycling containers to employees by their desks
- Buy materials with recycled content
- Add a compost bin in your kitchen area for organics

Sorting guides and signage are available on request from Valley Waste

Making Recommendations

Prepare for the meeting by developing some recommendations as to which material streams to target, and which types of initiatives to consider.

Recommendations from the leader of the process will provide structure to the meeting and prompt discussion. In the end, everyone has to agree with the initiatives selected if they are to besuccessfully implemented and sustained.

Examples of improvements could be:

- More waste stations
- Better signage
- Posted sorting guides
- a company green team
- provide a lunch and learn with your local waste management education team
- setting targets to reduce the annual waste produced which in turn shows a savings to the organization

In conclusion, remember that the Waste-Resource Assessment is only the first step in a long-term strategy to divert and reducewaste, turn waste into resources and meet the landfill ban requirements of Nova Scotia. The Waste Reduction Action Plan you develop must be sustained with an on-going internal communications program which engages the attention and support fall of your employees.



Let's work together

Our education team can help provide up to date information and training for staff to help reduce and divert waste.

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Resources available

Worksheets and the guide for your region can be downloaded at:

divertns.ca vwrm.com

FOLLOW US ON FACEBOOK, TWITTER, INSTAGRAM AND YOUTUBE



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