

Implementation Planning for Organics Programs

Final Report

Prepared for the
Ontario Waste Diversion
Organization

March, 2001



TABLE OF CONTENTS

ACKNOWLEDGEMENTS	i
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	3
2.1 Program Background	4
3.0 THE PILOT	7
4.0 TIMING	11
5.0 PROMOTION AND EDUCATION	13
5.1 Print Material	13
5.2 Distribution	14
5.3 Other Media and Communications Opportunities	15
5.3.1 Web based information	15
5.3.2 Radio & television	16
5.3.3 Public speaking	16
5.3.4 Promotional Items	16
5.4 Surveys	17
5.5 Language Issues	17
5.6 Information for New Residents	18
6.0 DISTRIBUTION OF CONTAINERS AND EQUIPMENT	19
6.1 Collection Vehicles	22
7.0 SCHEDULES AND ADMINISTRATION	23
7.1 Schedules and Routes	23
7.2 Staff Requirements	24
8.0 LESSONS LEARNED AND PROGRAM TEMPLATE	25
APPENDICES	
Appendix 1 - Sample Participant Surveys	27
Appendix 2 - Cart, Bag and Bin Suppliers	31
Appendix 3 - Sample Promotion & Education Materials	33

ACKNOWLEDGMENTS

The AMRC carried out numerous surveys and interviews with municipal staff in the preparation of this report and wishes to thank everyone who participated and provided their insight on the mechanics of implementing an organics program. Thanks also to those municipalities who provided reports and promotional material for us to include in the document.

The funding for this study was made available through the Ontario Waste Diversion Organization on the recommendation of the WDO's Organic Material Task Group.

The AMRC gratefully acknowledges the support of WDO in making this project possible.

1.0 EXECUTIVE SUMMARY

The AMRC examined a number of organic diversion programs in Ontario and across Canada to assist with the compilation of a guide for municipalities to use as they implement full scale organics collection programs of their own.

Interviews and surveys were used to establish the logical phases and timing of program implementation. These correspond with the sections in this document which are:

- The pilot
- Timing
- Promotion and education
- Distribution of containers and equipment
- Schedules and administration, and
- Lessons learned.

Examples of promotional materials and ideas have been compiled and are provided both in the text of the manual and in the appendices. Also included are current supplier's lists and contacts.

All of the program staff interviewed were asked to describe any lessons learned following the implementation of their programs or pilots. These are included in the document as well.

Note that the manual focuses on the implementation of a full scale organics collection program as concurrent work is being done by other organizations on organics processing.

2.0 INTRODUCTION

It is commonly acknowledged that any municipality wishing to achieve diversion beyond the 20-30 percent made possible through recycling, household hazardous waste collection, backyard composting and leaf and yard waste programs must move to some form of full scale organics collection and processing. Whether such a program is designed to focus on single family residential, multi-unit dwellings, IC&I generators or all three, it is unquestionably a major change to existing systems and requires extensive careful planning.

In considering the possible scenarios for approaching or reaching the stated goal of 50% diversion from disposal, the WDO's report to the Minister of the Environment, *Achieving Sustainable Municipal Waste Diversion Programs in Ontario* has acknowledged that there will be "significant activity" required in the coming five years. The report also acknowledges that there is little likelihood of such a goal being accomplished in such a short time frame, given the estimated cost and lack of agreed upon funding mechanisms). That being said, though, there is activity in a number of Ontario communities that is intended to culminate in expansion of existing organics programs to include household organics. Existing organics programs are currently limited in most cases to leaf and yard materials.

Thus, the WDO Organics Task Group identified the need to assist municipalities through the process of planning for full scale organics diversion.

The AMRC, in preparing this document, undertook an examination of communities in Ontario and across Canada that have implemented full scale organics collection and processing programs. This included communities that represent the full range of demographic characteristics - from large urban (e.g., Halifax, Edmonton, Guelph) to mid-sized and small (e.g., Meaford, Caledon, and East Prince, PEI). Also contacted were communities that are in the pilot phase prior to full scale implementation. These included the City of Peterborough, County of Dufferin and the Region of Niagara.

2.1 Program Background

The AMRC contacted and surveyed nine communities to compile background in the following areas: program timelines, promotion and education strategies, distribution of containers and other equipment, development of collection schedules, administrative procedures and lessons learned. A brief summary of the organics programs or pilots in each community follows:

Caledon

The Region of Peel's organics program in the Town of Caledon expanded to full scale in the urban areas of the community in 1995 and serves approximately 7,000 households in 13 communities and hamlets. The organics program expanded to a further 2,400 households in north Brampton in the summer of 2000. Collection is three/four stream, with garbage and recyclables collected weekly (fibres and containers on alternate weeks in gray and blue boxes, respectively) and organics on alternate weeks. Collection containers are 240 litre aerated wheeled carts.

Collection is contracted out and the processing facility is municipally-owned and operated. In 1999, 3,510 tonnes of organics were processed. A small portion of the finished compost is distributed to the public for free at environment days, with the majority of the material sold in bulk at the Region's two landfill sites.

The Organic Stream

Caledon: All kitchen scraps, yard waste, vacuum cleaner waste, lint, pet hair, soiled paper products; exclusions: waxed cardboard containers, animal waste, kitty litter, diapers, feminine hygiene products, fireplace ash, textiles.

Guelph

The City of Guelph's two stream wet/dry collection program was launched in 1995 and presently serves some 44,000 households. Collection containers are blue (dry) and green (wet) transparent plastic bags, picked up weekly by vertical split side loaders. Collection and processing are undertaken by municipal staff at a municipally-owned facility.

In 1999, 11,894 tonnes of organics (wet and leaf/yard) were processed. Finished compost is marketed in bulk to various local markets and also sold in some quantity to local service clubs for them to re-sell as a fund raising activity.

The Organic Stream

Guelph: All kitchen scraps, vacuum cleaner waste, lint, pet waste (including kitty litter), diapers, feminine hygiene products, incontinence products, fireplace ash; exclusions: yard waste (collected separately).

Meaford

The Town of Meaford's (now part of the municipality of Georgian Highlands) organics program was implemented in 1998 and serves all of the town's 2,155 households. Organics are collected weekly by contracted staff on the same day as

The Organic Stream

Meaford: All kitchen scraps, paper towels and facial tissue, hygiene products, diapers; exclusions: vacuum cleaner bags, yard waste (collected separately).

garbage. Recyclables are collected bi-weekly. Collection containers are clear plastic bags or any container that is clearly identifiable as containing organics. On average, just over 12,000 pounds per month of organics were processed at the municipally-owned and operated in-vessel composter, for an estimated total of 71 tonnes in 2000. Finished compost is sold in bulk to local residents.

Dufferin County

The County of Dufferin completed a one-year pilot involving just under 2,000 households (all single family detached) in December, 2000. The county plans to expand organics collection to the remainder of residents living in its urban areas and is currently exploring expansion options.

The Organic Stream

Dufferin: Kitchen/food wastes, soiled or dirty paper products, non-woody yard wastes (e.g., grass, leaves, plants); exclusions: diapers and sanitary products, woody yard waste.

The Organic Stream

Peterborough: Kitchen/food waste, other materials will be assessed during the pilot.

Peterborough

The City of Peterborough is set to launch a 600 household three stream organics pilot in the spring of this year, with the intention of expanding city wide following the pilot. A number of program elements will be tested, including collection containers, liners and frequency.

Halifax

The Regional Municipality of Halifax: Halifax's full scale organics collection program was launched in 1998, and serves approximately 115,000 households (from single family up to six-plexes). The system is three stream collection with recyclables collected in blue bags weekly, and organics and garbage collected on alternate weeks. Collection containers are 240 litre wheeled carts; in house containers are 8-litre mini-bins.

The Organic Stream

Halifax: Kitchen/food waste, yard waste, cardboard, soiled or non-recyclable paper, sawdust/wood shavings; exclusions: ashes, pet waste/kitty litter, waxed cardboard, other coated containers.

Collection is contracted out, and organic material is processed at two contracted facilities. Some 44,000 tonnes of organics were processed in 2000. Finished compost is marketed by the processors; much of it is sold to landscaping companies. A revenue share agreement is in place between the municipality and the contractor once the compost revenue reaches a specific value.

Niagara Region

The Regional Municipality of Niagara has undertaken a one-year organic co-collection pilot involving 1,350 households that was launched in July, 2000. Organics diversion is a key element of the Region's waste diversion objective of 65% by 2012.

The Organics Stream

Niagara: Kitchen/food waste, leaf and yard waste, soiled newsprint, and waxed or soiled cardboard; exclusions: brush (collected separately).

Prince Edward Island

Organics collection is a component of the province's Waste Watch program which started as a pilot in 1992 in 100 households, expanded to 10,000 households, 1,000 businesses, and 1,000 seasonal residences in 1994, (approximately 25% of the province's population) and is slated to be province-wide later this year or early next year.

The system is a modified three stream program in which recyclables are collected in blue bags monthly (separate bags for fibres and containers), organics and garbage are collected on alternating weeks in 240 litre green and black carts, respectively. The program currently processes some 11,000 tonnes of organics per year; finished compost is presently distributed to householders. Once the program is full scale, upon completion of an in-vessel processing facility later this year, marketing and end use of the compost will be the responsibility of the facility operator as part of the design/build/operate contract.

The Organic Stream:

PEI: Kitchen/food waste, non-recyclable paper, yard trimmings.

Edmonton

A co-composting facility was commissioned in March of 2000 and began accepting mixed waste from the city's residents in September. Materials are sorted upon arrival at the facility to remove non organics and oversize items such as furniture, electronics, etc. The facility is expected to produce 125,000 tonnes of compost annually.

3.0 THE PILOT

With one exception, all of the programs interviewed for this study, and indeed, all of the additional programs researched, carried out a pilot of some description. The goal(s) of the pilots included testing :

- collection containers,
- schedules,
- collection vehicles,
- participation potential,
- householder behaviour,
- delivery of information,
- material streams, and
- compost processing and quality.

The City of Halifax tested three makes of collection carts in its 2000 household two-year collection pilot. All were aerated 240 litre wheeled containers. The full scale program selected two makes of carts.

In most cases, the pilot is not necessarily separate from the full scale program: increasingly, the pilot area simply functions as the first stage of a program roll-out.

Pilot size and duration is determined by the size of the municipality and the range of options being tested. For example, the City of Guelph's pilot comprised 900 households over a period of six years. Options tested included relative diversion (2 stream vs. 3 stream), householder preference, collection container(s), and collection vehicles.

Caledon's pilot spanned one - two years during which time specific program indicators were observed. The objective of the observation was to track both the blue box and organics program for four consecutive weeks during the growing season and eight consecutive weeks during the winter months. Market research was done on available containers and through comparison with other municipalities such as St. Thomas.

Two different size aerated containers were selected for the pilot (160 and 295 litres). A non-aerated was also selected, but was quickly removed from the pilot. After the pilot, the smaller 160 litre aerated carts were chosen for the program. Since then, the larger 295 litre carts have been used for new households and replacements.

The pilot functioned as an introduction for the community and evolved over time into the full scale program.

The City of Peterborough will be piloting organics collection from some 600 households beginning in Spring of this year. Two different collection carts will be tested by the pilot participants: half will use a 240 litre aerated wheeled cart and half will use a 25 litre cart. Also under study will be two different kitchen containers - a stainless steel counter top unit and a plastic container with activated charcoal filter. The households using the larger container will be asked to switch mid way through the pilot to gauge their acceptance of the smaller container.

It is anticipated that evaluation of the residents' response to the pilot will be undertaken with the assistance of staff from the local Green Community, Peterborough Green-up, and possibly by Master Composters. This evaluation, like the distribution of containers, will be carried out by house to house visits. Set-out and participation will be assessed at intervals through the pilot, which is anticipated to extend for up to one year and then be rolled into the full scale program.

Collection frequency is anticipated to be weekly for all material streams, with a vertical split co-collection vehicle being used for kitchen organics and yard waste.

The County of Dufferin's pilot of some 2,000 single family households ran for one year.¹ Residents were provided with weekly collection of their wet stream using transparent green bags, and rigid plastic kitchen containers for use in the home. The organic waste was collected by two side loaders. There was no change to the weekly garbage and recyclables collection which remained the responsibility of the municipalities in which the organics pilot was being carried out.

The pilot areas were in the county's three largest communities: Orangeville, Shelburne and East Luther/Grand Valley, and in fact, included all of the single family homes in Grand Valley.

1. The pilot concluded in late fall of 2000, however the participating households will continue to receive organics collection in anticipation of the full scale program which will be launched later in 2001.

In Peterborough, focus group participants had expressed strong concern over potential odours, messiness and vectors in handling and storing organic materials. For this reason, the pilot households will also assess two different types of liners for the kitchen containers: one a cellulose lined kraft bag, and the other a biodegradable plastic bag.

The biodegradable plastic liners will also be tested in the larger carts.

Dufferin distributed detailed household kits that included a list of acceptable items, a brochure explaining the pilot, a fridge magnet, a garbage can sticker, a collection schedule and a letter from the county warden. All of the above material was contained in an in-house organics collection container.

The kits were assembled and distributed by local volunteers and service organizations (e.g., guides, scouts). A donation of \$500 was made to the service organizations by the County.

The main issues being explored by the pilot were:

- 1) environmental impact (i.e., gross tonnages diverted, and total diversion per household),
- 2) public participation, and
- 3) participant behaviour and attitude changes (tracked by surveys and by quality of materials delivered to composting facility).

On the other hand, the organics program in the Town of Meaford was launched without a pilot and has undergone modifications as it has grown over its three year history.

In general, the pilot is both a tool to test various aspects of collection or processing related to a full scale program, and - just as important - to introduce the changes to the community. The pilot can be considered to be a means of advanced promotion - indeed some municipalities reported calls from residents not on the pilot, inquiring when they will be added to the program and/or how they could participate.

All of the municipalities interviewed for this report recommended that the pilot must be long enough to span all of the seasons so that the performance of equipment, householder behaviour and preference, and the composition of the incoming organic stream can be fully evaluated.