



Ministry of Municipal Affairs & Housing



Association of Municipalities of Ontario

ONTARIO CENTRE FOR MUNICIPAL BEST PRACTICES

WM – WD – 04 – METHODOLOGY REPORT

IDENTIFICATION OF MUNICIPAL “BEST PRACTICES”

For

WASTE MANAGEMENT - SOLID WASTE DIVERSION

Using

2002 MPMP Data

JUNE 2004

**Prepared for the Ontario Centre for Municipal Best Practices
by
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1. Introduction

In February 2004, the Ontario Centre for Municipal Best Practices (OCMBP) engaged Lura Consulting to work with the Centre's Solid Waste Municipal Practitioners team to identify potential Best Practice Municipalities within the field of solid waste diversion, using the Ontario Ministry of Municipal Affairs and Housing 2002 MPMP (Municipal Performance Measurement Program) data, and to identify contributing practices within those municipalities.

A Best Practice, as summarized by the Ontario Centre for Municipal Best Practices, is one which has demonstrably assisted at least one Ontario municipality to achieve a high level of measured performance in a service or activity, or to achieve a significant improvement in measured performance in a service or activity.

The Best Practice may be in place in one or more other Ontario municipalities, in a form similar to that in the municipality or municipalities identified. However, the practice is not yet universally implemented in all Ontario municipalities where its application could potentially improve measured performance in the service or activity.

The OCMBP specifically recognizes that a Best Practice, which has verifiably contributed to service performance improvement in the case-study municipality, may not be applicable or equally cost-beneficial in all other Ontario municipalities. Even within Ontario, municipalities exhibit considerable variation in service-significant factors such as population size and density, climate and terrain, non-resident usage of services and infrastructure, industrial base, or age of settlement.

The identification of Best Practices, the verification of its essential features and its contribution to measured service performance in at least one case-study municipality, and the preparation of the Best Practice Summary Report in the format shown below, are the responsibility of the OCMBP, and not of any case-study municipality or any other party. Neither the OCMBP nor any Summary Report in any way establishes minimum performance standards for municipal services or prescribes service delivery approaches. Best Practice Summary Reports are intended to be an efficient reference tool for municipal service providers to learn about and investigate alternative approaches to delivering efficient and effective services.

The objective of the study was to:

- Identify those municipalities having completed MPMP 2002 data call information for residential solid waste diversion operations;
- Determine above-average municipal performers from the MPMP 2002 data;

- Establish the “Best Practice” of unique and valid waste diversion initiatives within a best-performing municipality, or practices consistent over a number of best-performing municipalities.

2. Best Practice Identification Methodology

2.1 Stage I: Using the Ontario Municipal Affairs & Housing’s 2002 Municipal Performance Measures Program (MPMP) data to screen municipalities

2.1.1 Measures Used

The following measures from the 2002 reporting year were used:

- Operating costs for residential waste diversion per tonne (Schedule 91, line 3602, column 13 of the MPMP schedules)
- Percentage of residential solid waste diverted (Schedule 92, line 3655, column 07 of the MPMP schedules)

Note that for purposes of the performance measures, operating costs were defined as the sum of salaries, wages and employee benefits; materials; contracted services; rents and financial expenses; and inter-functional adjustment, less revenue received from other municipalities.

For the purposes of consistency in comparing municipalities for the solid waste diversion efficiency measure, the methodology used municipalities reporting the effectiveness measure based on residential tonnes diverted.

2.1.2 Objective of this Stage

To identify municipalities with lower than average costs per tonne (efficiency) and average or higher than average percentage of residential solid waste diverted (effectiveness).

2.1.3 Basic Groupings

Municipalities were divided into 3 groups based on population as follows:

- Under 25,000
- 25,001 to 99,999
- Over 100,000

Note that population refers to enumerated population for 2000 (Schedule 90, line 0020, column 01 of the MPMP schedules)

2.1.4 Filtering Data

Municipalities were considered to have completed the efficiency measure if the value was non-zero. Note that it was possible for a municipality to have a negative value for this measure if revenues received from other municipalities for diversion services exceeded operating costs.

Municipalities were considered to have completed the effectiveness measure if the value for the measure was greater than zero and less than 100%

To be considered for further evaluation, a municipality had to meet the following conditions:

- Residential tonnes reported as denominator of efficiency measure
- Efficiency measure less than average for population group
- Effectiveness measure greater than or equal to the average for population group

2.1.5 Statistics for Each Group of Municipalities

The table below summarizes the information for each group of municipalities:

Summary of Statistics					
Population Groups	Mean: efficiency measure	Number of municipalities reporting efficiency measure	Mean: effectiveness measure	Number of municipalities reporting effectiveness measure	Number of municipalities meeting criteria for efficiency, effectiveness and reporting of solid waste diversion
<25,000	\$ 186.22	118	25.2%	92	11
25,001 TO 99,999	\$ 176.06	32	30.9%	26	3
100,000 +	\$ 124.29	26	28.7%	22	4

2.2 STAGE II: Detailed Survey of Selected Municipalities

2.2.1 Municipalities Selected for Follow-up

A total of 18 municipalities met the criteria and were selected for further evaluation. The municipalities were contacted and interviewed based on the following criteria:

- The ability to locate the appropriate staff person who could answer further questions;
- The willingness of a municipality to answer further questions in the allotted time frame (interviews were conducted between March 22 and April 9, 2004);
- The ability to confirm 2002 MPMP efficiency and effectiveness data.

Based on the above criteria, the number of follow-up telephone interviews was completed as follows:

- 10 municipalities having a population less than 25,000 were interviewed;

- 2 municipalities having a population between 25,001 and 99,999 were interviewed;
- 4 municipalities having a population over 100,000 were interviewed.

2.2.2 Survey of selected municipalities

A questionnaire was developed to explore a number of operational issues not evident from a review of the data call information. Telephone interviews were scheduled with the respective municipalities and a copy of the questionnaire was emailed to the respondent prior to the interview. A copy of the survey is attached as Appendix I. This interview process provided an opportunity to:

- Confirm the cost allocation and tonnages as reported in the 2002 MPMP data call;
- Review the types of waste diversion programs and initiatives undertaken by the respective municipalities;
- Identify which programs and or initiatives municipalities consider to have had the greatest impact on the diversion rates they had achieved; and
- Identify the non-controllable issues relevant to that community (i.e. demographics, geography etc).

The interviews included discussion regarding management practices, equipment and facility management, planning, policies, communications, special or unique conditions in the municipality and other relevant subjects the interviewee raised. Many of the municipalities interviewed provided effective and efficient services without demonstrating potential best practices. Some municipalities did reveal practices worth consideration, and those case studies are detailed in the Best Practice reports.

A summary of the responses to the interview is attached as Appendix II.

Appendix 1

Best Practice Identification Questionnaire Waste Management Re: 2002 MPMP Data

1.0 Municipal Characteristics

Demographics

1. What is the population of your community? (MPMP Schedule 90 line 20 column 01)
2. What unique demographic factors might influence diversion rates/costs?
3. What is the approximate urban/rural split of the collection area?
4. What percentage of serviced householders lives in single vs. multi-family dwellings?

5. What percentage of serviced households receives curbside recycling collection vs. depot collection?
6. What percentage of the collection stops, if any is allocated as commercial stops?

Geography

1. What unique geographical factors that may influence diversion rates/costs?

2.0 Administration

1. Please describe the program and administrative responsibilities of the Waste Management Division staff? (e.g. marketing, invoicing, contract admin, customer complaints, etc.)
2. If you contract services please describe the administrative responsibilities of the contractor(s)? (e.g. marketing, customer complaints, etc.)
3. Does the municipality pay for and/or supply residents with recycling/organic receptacles?
4. What is your operating cost per tonne for diversion (schedule 91, line 3602, column 13)?
5. What is your residential diversion rate (schedule 91, line 3655, column 07)?

3.0 Waste Management Program Planning

1. Does your municipality have a long-term solid waste management plan/strategy?
2. If yes, briefly describe any municipal policies/direction that affect or influence your waste management programs?
3. Do you have a municipal and/or stakeholder waste management group? If yes, what is its role?
4. Which waste management programs have had the most impact on diversion rates?

4.0 Waste Management Facilities/Operations

1. Please indicate if your municipality owns, operates or contracts out the following facilities and operations:

i)	MRF:	Own	Operate	Contract all	Contract ops	N/A
ii)	Transfer station:	Own	Operate	Contract all	Contract ops	N/A
iii)	Recycling depot(s):	Own	Operate	Contract all	Contract ops	N/A
iv)	HHW Depot:	Own	Operate	Contract all	Contract ops	N/A
v)	Open windrow comp:	Own	Operate	Contract all	Contract ops	N/A
vi)	In-vessel composting:	Own	Operate	Contract all	Contract ops	N/A
vii)	Wet/Dry facility:	Own	Operate	Contract all	Contract ops	N/A

viii)	Marketing of recyclables:	In-house	Contract	N/A
ix)	Blue box collection:	In-house	Contract	N/A
x)	Organics collection:	In-house	Contract	N/A
xi)	Green waste collection:	In-house	Contract	N/A
xii)	HHW collection:	In-house	Contract	N/A
xiii)	Other:			

2. What practices/policies help to minimize operating costs for the following operations?

- i) Recycling Collection
- ii) Composting
- iii) Transfer stations
- iv) Communications
- v) Hazardous Waste
- vi) Other

3. Please indicate if collection takes place in rural and/or urban areas for the following operations:

i)	Recycling	Rural only	Urban only	Urban & Rural	N/A
ii)	Kitchen organics	Rural only	Urban only	Urban & Rural	N/A
iii)	Yard waste	Rural only	Urban only	Urban & Rural	N/A
iv)	Other	Rural only	Urban only	Urban & Rural	N/A

4. What is the collection frequency for the following operations:

- i) Garbage
- ii) Curbside Recycling
- iii) Organics

5. Please identify any unique features of your diversion programs (e.g. Issue second blue box/grey box, type of organic cart/bag, bag limits, bag tags, etc.)

6. Which of the following recyclable materials are collected?

- Newsprint
- Fine paper
- Telephone Directories
- Magazines/Catalogues
- OCC
- Boxboard
- Polycoat cartons/Tetrapak
- Aluminium
- Steel
- Clear glass
- Coloured glass
- PET
- HDPE
- Plastic Film

- Polystyrene
- Tubs & lids

5.0 Collection Vehicles (If collection fleet is municipally operated)

1. Are collection vehicles leased?
2. Is there a regular maintenance program for collection vehicles?
3. Is maintenance contracted out?

7.0 Contracts

1. What contractual agreement(s) contribute to your low cost and or high diversion rate? (e.g. penalties, cost per tonne/stop, sharing advertising \$, etc.)
2. Do you have revenue sharing? What is the revenue split?

8.0 Promotion and Education

1. Do you distribute promotion and education materials for each of the following programs:

i) Backyard composting Yes No N/A

Media:

ii) Yard waste collection Yes No N/A

Media:

iii) Mixed waste collection Yes No N/A

Media:

iv) Wet/Dry collection Yes No N/A

Media:

v) 3 Stream organics collection Yes No N/A

Media:

vi) Recycling Yes No N/A

Media:

vii) Bag limits Yes No N/A

Media:

viii) User pay Yes No N/A

Media:

What factors do you feel contribute to the success of your promotion and education initiative?

2. What is your annual promotion and education budget?

APPENDIX II

Survey Results Synopsis

Survey Results Regarding 2002 MPMP Data For Municipalities With Population Under 25,000

Municipality	Diversion (%)	Diversion Costs (\$ per tonne)	Population (2000)
Tyendinaga Tp	69	173.33	3,457
Petawawa T	57	136.97	15,148
Tay Valley Tp	39	69.08	5,239
Brockville C	36	134.28	19,970
North Glengarry Tp	32	121.57	10,550
Orangeville T	32	158.86	21,620
Owen Sound C	30	145.11	19,870
Greater Napanee T	29	239.17	13,682
Beckwith Tp	27	102.93	5,404
Loyalist Tp	27	231.97	12,779
Kenora C	24	201.03	14,846

- 11 Municipalities were screened for possible best practices
- Efficiency measure less than average for population group (<\$241.60)
- Effectiveness measure greater than average for population group (>23.3%)
- 10/11 have been interviewed

1.0 Municipal Characteristics

Demographics

7. What unique demographic/geographic factors might influence diversion rates/costs?

22%	Reported having up to 20% senior population
56%	Reported their service area to be between 40-69% rural
89%	100% curbside collection

2.0 Administration

6. Program and administrative responsibilities (e.g. marketing, invoicing, contract admin, customer complaints, etc.)

88%	Contract administration, invoicing, customer complaints and marketing
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- 22% Contractor markets materials
- 7. Does the municipality pay for and/or supply residents with recycling/organic receptacles?
 - 56% Charge for additional blue boxes
 - 45% Subsidize cost of backyard composters

3.0 Waste Management Program Planning

- 5. Does your municipality have a long-term solid waste management plan/strategy?
 - 56% Have a long-term plan
 - 89% Have a waste management committee
- 6. Municipal policies/direction that affect or influence waste management programs?
 - 78% Bag limit of 3 or less
 - 34% Partial user pay for bags above limit
 - 45% Full user pay
 - 11% Collection ban for recyclable material
 - 11% Two box curbside collection recycling system
 - 56% Belong to a recycling consortium

4.0 Waste Management Facilities/Operations

- 7. Please indicate if your municipality owns, operates or contracts out the following facilities and operations:
 - 33% Own/operate MRF
 - 67% Contract MRF
 - 33% Own/operate recycling depot(s)
 - 11% Contract recycling depots
 - 33% Own/operate HHW
 - 33% Contract HHW
 - 33% Own/operate open windrow operation
 - 11% Contract open windrow operation
 - 67% Contractor markets recyclable materials
- 8. What practices/policies help to minimize operating costs for the following operations?
 - 33% Source separate recyclable materials
- 9. What is the collection frequency for the following operations:
 - 89% Weekly Garbage
 - 56% Weekly Curbside Recycling
 - 45% Seasonal Organics
- 10. Please identify any unique features of your diversion programs (e.g. Issue second blue box/grey box, type of organic cart/bag, bag limits, bag tags, etc.)

11% Provide free recycling boxes – encourage multiple box set out

11. Which of the following recyclable materials are collected?

89% Collect majority of recyclable items

5.0 Contracts

3. What contractual agreement(s) contribute to your low cost and or high diversion rate? (e.g. penalties, cost per tonne/stop, sharing advertising \$, etc.)

4. Do you have revenue sharing? What is the revenue split?

33% Contractor keeps all revenue

11% Share revenue

33% Share advertising costs

22% Contracts have non performance penalties

6.0 Promotion and Education

100% Multi-media communications campaign

67% P&E budget average \$0.66/pp

33% P&E budget from \$2-\$10

Survey Results Regarding 2002 MPMP Data For Municipalities With Population 25,000-99,999

Municipality	% Diverted	Diversion Cost	Population (2000)
Peterborough C	46	74.75	67,666
St. Thomas C	40	45.52	30,776
Northumberland Co	38	124.78	70,775

- 3 Municipalities were screened for possible best practices
- Efficiency measure less than average for population group (<\$138.76)
- Effectiveness measure greater than average for population group (>31.5%)
- 2/3 have been interviewed

1.0 Municipal Characteristics

Demographics

1. What unique demographic/geographic factors might influence diversion rates/costs?

- Both municipalities indicated a large senior population ~20%
2. What is the approximate urban/rural split of the collection area?
 - a. Northumberland indicated a 50/50 urban rural split
 3. What percentage of serviced households receives curbside recycling collection vs. depot collection?
 - b. All municipalities indicated providing 97-100% curbside collection.
 4. What percentage of the collection stops, if any is allocated as commercial stops?
 - c. All municipalities indicated that commercial stops made up <5% of their collection.

2.0 Administration

1. Program and administrative responsibilities (e.g. marketing, invoicing, contract admin, customer complaints, etc.)

100% Municipality responsible for Contract administration, invoicing, customer complaints and marketing
2. Does the municipality pay for and/or supply residents with recycling/organic receptacles?
 - Peterborough supplies one box free
 - Northumberland residents buy plastic blue and clear bags for recyclables

3.0 Waste Management Program Planning

1. Does your municipality have a long-term solid waste management plan/strategy?

50% Have WM Plan
2. Municipal policies/direction that affect or influence waste management programs?

100% Bag limit of 3 or less
 50% Full user pay
 100% Collection ban for recyclable material (Northumberland also bans yard waste)

4.0 Waste Management Facilities/Operations

1. Please indicate if your municipality owns, operates or contracts out the following facilities and operations:

Peterborough Own/contract ops MRF
 Northumberland Contract MRF
 Peterborough Own/contract ops recycling depot(s)
 100% Own/contract HHW depots

100% Own/contract ops open windrow operation

2. What practices/policies help to minimize operating costs for the following operations?

Peterborough City maintains and fuels fleet at Contractor's expense
Do not specify new trucks for contract
Revenue losses charged to Contractor
Co-collection and compaction recycling vehicles
Source separated materials

Northumberland No plastic allowed for collection of green waste
Co-mingled recyclable materials

3. What is the collection frequency for the following operations:

100% Weekly Garbage
100% Weekly Curbside Recycling
50% Weekly Organics

4. Please identify any unique features of your diversion programs (e.g. Issue second blue box/grey box, type of organic cart/bag, bag limits, bag tags, etc.)

5. Recyclable materials are collected?

100% 16 of 16 recyclable materials collected

5.0 Collection Vehicles

N/A

7.0 Contracts

1. What contractual agreement(s) contribute to your low cost and or high diversion rate? (e.g. penalties, cost per tonne/stop, sharing advertising \$, etc.)

- Both municipalities have penalty clauses
- No revenue sharing – municipality maintains all materials revenue

7.0 Promotion and Education

- Both municipalities have comprehensive communication and education campaigns
 - Both municipalities have outreach programs
 - Peterborough communication budget \$1.03/pp
 - Northumberland communications budget \$0.81/pp
-

Survey Results Regarding 2002 MPMP Data For Municipalities With Population Over 100,000

Municipality	% Diverted	Diversion Cost	Population (2000)
Peel R	45	98.53	874,139
Niagara R	42	59.69	394,400
Waterloo R	40	65.9	417,932
Halton R	36	106.28	349,078

- 4 Municipalities were screened for possible best practices
- Efficiency measure less than average for population group (<\$128.98)
- Effectiveness measure greater than average for population group (>32.1%)
- All 4 municipalities have been interviewed

1.0 Municipal Characteristics

Demographics

1. What unique demographic/geographic factors might influence diversion rates/costs?
 - Waterloo identified their large population of university students
 - Niagara indicated that their long growing period resulted in more organic material/year for collection
2. What is the approximate urban/rural split of the collection area?
 - d. Typical urban rural split in all municipalities e.g. <30% rural
3. What percentage of serviced households receives curbside recycling collection vs. depot collection?
 - e. 100% curbside collection.

2.0 Administration

1. Program and administrative responsibilities (e.g. marketing, invoicing, contract admin, customer complaints, etc.)

100%	Municipality responsible for Contract administration, invoicing, customer complaints
75%	Contractor markets materials
2. Does the municipality pay for and/or supply residents with recycling/organic receptacles?
 - Waterloo provides free blue boxes – encourages multi boxes for recycling set out
 - Peel, Halton and Niagara charge for additional blue boxes
 - 100% subsidize cost of Composter

3.0 Waste Management Program Planning

1. Does your municipality have a long-term solid waste management plan/strategy?

100% Have a Long Term Waste Management Plan
75% Have a recycling committee
2. Municipal policies/direction that affect or influence waste management programs?

50% Bag limit of 3 or less
25% Semi-user pay
25% Collection ban for recyclable material

4.0 Waste Management Facilities/Operations

1. Please indicate if your municipality owns, operates or contracts out the following facilities and operations:

50% Own/contract ops MRF
25% Contract MRF
25% Own/operate MRF
75% Own/operate recycling depot(s)
50% Own/contract HHW depots
50% Own/contract ops open windrow operation
2. What practices/policies help to minimize operating costs for the following operations?

75% Source separate recyclable materials
25% Co-collection recycling
25% Grey and blue box system
3. What is the collection frequency for the following operations:
100% Weekly Garbage
75% Weekly Curbside Recycling
50% Seasonal Organics
4. Recyclable materials are collected?

75% 15 or more types of recyclable materials collected

5.0 Collection Vehicles

100% Contractor owned

6.0 Contracts

1. What contractual agreement(s) contribute to your low cost and or high diversion rate? (e.g. penalties, cost per tonne/stop, sharing advertising \$, etc.)

100% Contracts have penalty clauses
25% Revenue sharing with Contractor

7.0 Promotion and Education

75% Comprehensive Waste Management Calendar
 P&E Budget Waterloo - \$0.36/pp
 Peel - \$0.15/pp
 Halton - \$0.40/pp

APPENDIX III

Survey Contact Information

Municipality	Contact Name and Number
Population <25000	
Tyendinaga	Rick Clow 613-849-6511 rick@quinterecycling.org
Petawawa and Becksmith	Joe Hall 613-732-9285
Tay Valley	Kathy Coulthart Dewey 705-360-8461
Brockville	Valerie Harvey 613-342-8772 Ext 8231
North Glengary	Renee Jeurond 613-525-5112
Orangeville	Doug Jones 519-941-0440 ext 250 djones@town.orangeville.on.ca
Owen Sound	Chris Hughes
Greater Napanee	Vern Amey 613-354-3351 ext 266 vamey@town.greaternapanee.on.ca
Loyalist	Gabe Gagnier 613-386-7351 ggagnier@loyalist-township.on.ca
Kenora	Dan Reynard 1-807-467-2990 dreynard@city.kenora.on.ca
Population 25000 – 99999	
Peterborough	Susan Sauve 705 742-7777
St. Thomas	John Dewancker jdewancker@city.st-thomas.on.ca
Northumberland	Pam Russell 1-800-354-7050
Population 100000+	
Peel Region	Brandon Smith 905-791-7800 ext 4696
Niagara Region	Jeneane Ralph
Waterloo Region	Shahin Virani 519-575-4779 vshahin@region.waterloo.on.ca
Halton Region	Nicole Cosgrove 905 825 6000