

8.0 REVIEW OF WASTE DIVERSION

8.1 Introduction

The review of waste diversion, Specification 3.6, relates to both the FRSWC and activities at the landfill, including the following:

- *Methods used.*
- *Rate of diversion.*

Waste diversion is primarily a function of the FRSWC rather than a specific landfill function. As such, most of the implementation of waste diversion is directed and coordinated by the Commission. This includes the regional Blue Bin program and compost material collection. Through the landfill staff, educational initiatives are implemented to assist in promoting waste diversion. The landfill staff also weigh and document the various waste and recyclable materials.

This chapter provides a review of the items associated with Waste Diversion.

8.2 Diversion Methods Used

The diversion of waste out of the engineered landfill is a goal of the FRSWC, the community and the Province. There are several programs for this purpose.

The curbside compost pickup program provides a means for residents to separate their organic home and garden wastes. These wastes are picked up separately from garbage and hauled to the landfill's compost facility for processing. In 2004 about 7,250 tonnes of compostable material was diverted out of the landfill.

The community recycling program includes 23 blue bin recycling depots throughout the region. These allow the public to recycle paper, cardboard, metal, and plastics. In 2004 recycled material totalled 5,150 tonnes.

Other means of recycling which are available at the landfill include tires, metal and cardboard. Within the community there are also the Redemption Depots for beverage container recycling. Some business utilize private firms for the recycling of office paper products.

A major part of the diversion of waste out of the landfill cells is the separate disposal site for the construction and demolition waste at the C&D disposal site at the landfill. The benefit of this program is that this material is not disposed of in the more expensive engineered landfill cells. C&D waste uses up more landfill volume than normal municipal waste and therefore can reduce the lifespan of the landfill. In 2004 about 9,470 tonnes of C&D waste was diverted out of the landfill cells and disposed of in the C&D disposal site.

8.3 Rate of Diversion

The following table summarizes the waste quantities from the landfill for 2004.

2004 Waste Tonnages

2004 Tonnes	MSW	C & D	Compost	Tires	Asbestos	Special	Blue Bins	Total
City of Saint John	11,409	317	2,659	3.4			2,800	17,189
Town of Grand Bay	16	18						34
Town of Hampton	857		216				359	1,432
Town of Rothesay	2,269		910	0.4			1,409	4,588
Village of St. Martins	144						59	203
Local Service Dist's	3,886	12	637	0.6			152	4,688
Cash	3,357	3,953	165	1.8			370	7,847
Other	44,958	5,174	2,659	39.1	679.5	5.82		53,516
TOTAL:	66,896	9,475	7,245	45.3	679.5	5.82	5,149	89,496
Residential	21,938		7,245	6.2			5,149	34,339
ICI ⁽¹⁾	44,958	9,475		39.1	679.5	5.82		55,158
TOTAL:	66,896	9,475	7,245	45.3	679.5	5.82	5,149	89,496
(1) ICI figures also include Quispamsis & Grand Bay.								

From this data it is noted that approximately two thirds of the MSW comes from the ICI sector (industrial, commercial, institutional).

The calculation of a diversion rate depends on many variables and what particular component of the waste stream is being considered, such as industrial, commercial, residential or all sources. To calculate an accurate diversion rate all the sources of waste need to be measured. For this study we only have the data presented which relates to only those materials that are weighed at the landfill.

From the given data, diversion rates can be calculated for a variety of parameters including:

- Diversion rate out of the landfill cells compared to Total Waste received at the landfill:

$$(C\&D + \text{compost} + \text{tires} + \text{recycling}) / (\text{Total Waste}) = 24.5\%$$

- Diversion rate out of the landfill cells compared to the total Residential Waste received at the landfill:

$$(\text{Compost} + \text{residential tires} + \text{recycling}) / (\text{Total Residential Waste}) = 36.1 \%$$

A 1996 letter to the FRSWC regarding Clarification of Order in Council (96-849) Condition (e), defined a waste diversion objective of 35,000 tonnes of waste per year. This was to be diverted from the landfill cells and was to use 1996 as the baseline year for comparison. In 2004 the amount of waste (measured at the landfill) diverted from the cells was about 22,000 tonnes. This falls short of the stated objective. It is noted that to accurately determine this number a comparison would have to be made to the 1996 waste generation rates and contributing population.

As a possible means of increasing the diversion rate, consideration could be given to providing a blue bin recycling facility at the landfill. This facility, combined with a HHW drop-off facility and the existing waste disposal bin, would allow the public to sort and appropriately dispose of their waste at one location.