

E&E Project Summary Report

Project Title/number: Northumberland Recycling Program Optimization Study/ PN 81

Priority area: MRF Rationalization

Lead Sponsor/other partners: County of Northumberland with Jacques Whitford and MacViro Consultants

Project Duration: August 2005 to May 2006

Project Summary:

i) Goals

To complete a study to optimize the MRF incoming material stream and to complete a review of the MRF equipment in accordance with the following objectives:

- To increase the amount of material recovered at the Northumberland MRF
- To decrease the overall cost of the recycling program

ii) Accomplishments

The study identified the expected outcomes of the feedstock modifications and equipment retrofit to be:

- Decreased time required for sorting materials
- Eliminate the need for overtime shifts
- Increased throughput per hour from 5 tonnes to 10 tonnes
- Increased recyclables capture by 27%

iii) Lessons Learned/Best Practice implications

The County is spending almost \$400K annually to sort and manage residual materials. It is anticipated that as a result of implementing the recommendations of the report, the MRF residual rate can be reduced from 36% to 12%, thus reducing the cost to manage residual to approximately \$130K per year.

iv) Limitations

Optimizing existing MRFs offers a substantial opportunity of reducing the cost of the Blue Box system. While the MRF retrofits proposed by Northumberland are supported by a solid business case, it is important to view this investment in the context of a region-wide MRF regionalization processing infrastructure strategy. More work is needed in this field to determine exactly where it makes sense to invest, and to ensure that economies of scale are achieved.

v) Impacts (including tonnes diverted and cost impacts)

Once the study recommendations are implemented, this project should achieve both reduced cost per tonne and increased recyclables diverted.

It is anticipated that the annual cost savings for labour will be \$346,000, which is made up of:

- Decreased time for sorting material (estimated savings of \$228,000), and
- Eliminate the need for overtime shifts (estimated savings of \$118,000).

It is estimated that approximately 27%, or 4000 tonnes more recyclables will be captured each year, thus increasing sales revenues by \$75,000.

Financial Summary

Total project cost: \$69,000

E&E fund contribution: \$23,000 (**Actually spent:** \$19,720)

Additional information (list of resources & tools/ how/where to access additional information/ follow-up contacts):

County Council has revised the bylaw stating what is acceptable in the recycling stream. Staff has prepared public education material to inform residents about the changes to what is accepted in the recycling collection, and the way they are to prepare their recyclables (bagging plastic film separately). Finally, an application has been submitted to the E&E Fund for \$774,000 to implement the recommended equipment modifications. If funding is approved, a public tendering process will be utilized for the supply and installation of the equipment.