

CIF Project #821.2 MIPC Study - Local Study Analysis and Alternatives

Project Background

In 2015, Niagara Region began a study to identify levels of service and an optimized system-wide design that would be included for pricing as part of the new waste/recycling/organics collection contract in 2018 and potentially a new Material Recycling Facility (MRF) processing contract beginning in 2018-2020. The study was to assess single versus dual stream recycling, bi-weekly waste collection, automated cart collection and whether continued investment in a Regionally-owned MRF versus a transfer station are the appropriate direction for Niagara. CIF funded a portion of the Blue Box analysis.

Summary of Results

The key objectives of this study were to identify capital, operating costs and revenues for Niagara Region's MRF under the various materials processing alternatives described below:

1. System A: Continued Use of Existing Dual Stream MRF
2. System B: Conversion of Existing MRF to a Transfer Station
3. System C: Conversion of Existing MRF to Single Stream

Baseline operating, capital costs, tonnage projections and revenues were obtained and an analysis of the three system options was conducted by consultants and Niagara Region staff. Transfer costs and estimated processing costs at other facilities were also estimated to produce overall cost estimates for each scenario.

The Region's study was to include modeling and analysis of the collection system design and associated recycling transfer/processing infrastructure options/costs under single versus dual stream recycling approaches.

Learnings

This study was intended to build on the results of three past reports:

- i) In a Study of the Optimization of the Blue Box Material Processing System in Ontario – Final Report, June, 2012 (MIPC MRF Optimization Study), the main result which affects Niagara Region is the recommendation that the owned MRF be decommissioned and undergo a retrofit to become a transfer station. Under this recommendation, material would be shipped to Hamilton's MRF for processing. However, additional analysis was required to ensure the financial benefits of optimization reported in the study were achievable.

ii) Another study, funded by CIF in 2013, reviewed the Region's MRF operations. The 2013 MRF study results demonstrated that Niagara's facility was cost effective even when compared to other programs with private sector processors.

These positive results needed to be reconciled with the MIPC Blue Box MRF Optimization Study recommendation of MRF conversion to transfer station through more detailed analysis and modeling as part of the Region's study.

iii) An Assessment of Single and Dual Stream Recycling (Nov. 2012, updated Mar. 2013) does not identify a preferred single versus dual stream approach for Niagara or other Ontario municipalities. Relevant excerpts from the report conclusion include:

- There is no consistent body of research that demonstrates clearly that either dual or single stream recycling is a specific best practice.
- When making choices in regards to system changes, municipalities should assess options for both program configurations considering local conditions and the potential effects of other best practices that could improve program performance such as increasing the size of the curbside recycling container, more efficient collection system configurations (e.g. co-collection) and disincentives for garbage, all of which could apply to either approach.
- The completion of modeling exercises to examine the full collection system design/costs (for garbage, recycling and organics) can assist the decision making process for municipalities.

For additional information, contact Niagara Region waste management staff.