

CIF Project # 817.2 – Kingston Optimization Study Analysis & Upgrade

Background

In 2014, the City of Kingston (City) undertook a study to explore options for expanding the capacity of its Material Recovery Facility (MRF) to operate as a regional MRF within Eastern Ontario. The objective was to complete a detailed analysis of cost implications and feasibility of the recommendations outlined in Project #428, the MIPC commissioned Study of the Optimization of the Blue Box Material Processing System in Ontario (i.e., the MIPC Optimization Study). Project 817.2 was to be comprised of two major components: 1) MRF assessment including the development of a technical plan and the development of a business case, and 2) the collection of regional municipal data, interest and engagement.

In addition to the MIPC Optimization Study (Project #428), this work followed two other CIF funded projects. Project #367 provided an analysis of an optimum diversion network for Eastern Ontario and identified several scenarios that included a regional MRF in the Kingston area. Project #398 developed a risk analysis and business plan for a regional MRF in Kingston.

Summary of Results

HDR Inc. was contracted to complete the study to confirm the City of Kingston's role within the Eastern Ontario waste shed at a level of detail that exceeded the MIPC Optimization Study. The resulting final report outlined a technical plan, initial business case, and interest levels of municipalities in the region for expanding the capacity of the existing Kingston MRF to serve Eastern Ontario.

The study found 23 municipalities that expressed initial interest in a Kingston-based regional MRF, which represented an additional 10,483 tonnes of materials to be processed. To become a regional MRF, the study recommended expanding the capacity of the existing MRF to 25,000 tonnes per year and implementing a true dual stream curbside collection system that does not include separate glass collection at the curb.

The HDR study was completed June 2015 and the final report was submitted to City Council. The following year, the Waste Free Ontario Act was passed indicating Ontario diversion programs would transition to Individual Producer Responsibility (IPR). In light of this new legislation and surrounding uncertainty, the City sought to develop a final business plan for the MRF under CIF Project #1008. Ultimately, concerns that producers would not choose to operate the site as a regional MRF led the City to explore a simpler retrofit of its facility.

In early 2017, Shaun Spalding was contracted to review and update the HDR study to ensure the underlying assumptions and conclusions were still valid. Later in 2017, Archibald Engineering was contracted to review the project and provide an additional upgrade option for the Kingston MRF that would minimize the City's investment but still result in optimizing its operating cost profile in advance of transition of the program.

Financials

The CIF agreed to fund 50% of the study, up to a maximum of \$84,750 including tax. Additional funds were budgeted in anticipation of implementing the recommendations of the study, totalling \$1,560,270. However, since the project was not pursued in light of the changing legislation, the final cost of the project was \$87,800.

Learnings

CIF Project 817.2 highlights the challenges municipalities face in trying to develop and maintain modern, efficient infrastructure at a time of tremendous political uncertainty. None the less, the various studies have aided the City in developing a flexible set of options that balances current needs with effective risk assessment and highlights the importance of re-evaluating ongoing projects and adjusting goals accordingly.