



To: **Committee of the Whole**

Agenda Section: Corporate Services
Division: Engineering, Planning and Environment
Department: Solid Waste Management

Item Number: CCW - 17-223

Meeting Date: September 26, 2017

Subject: Environmental Resource Recovery Centre – MMF Updated Business Case

Recommendation

That Item CCW 17-223, dated September 26, 2017, regarding the Environmental Resource Recovery Centre – MMF Updated Business Case, be received.

Executive Summary

The purpose of this Item is to present an updated Business Case for the Materials Management Facility (MMF) – refining the 2014 financial analysis to consider development of the facility at 2976 Horseshoe Valley Road West, Springwater.

Based on the financial analysis and assumptions outlined in this report, development of a County facility to manage the long-term transfer of garbage and blue box recycling until 2022 would have the lowest total costs over the 20-year period. During the 20-year operating period, the analysis indicates considerable annual savings for this option as greater tonnages of garbage are managed with the closure of County landfills. Although continued contracting transfer had the lowest 20-year Net Present Value (NPV), this was based on assumptions regarding consistent, long-term pricing for this service. A sensitivity analysis indicates that even small increases to projected contracted prices would impact the financial outlook significantly. With limited transfer capacity in this region, the County would be vulnerable to pricing increases – this is a notable risk.

Furthering development of County-owned transfer capacity still remains the recommended approach in preparation for long-term, secure management of our waste. Final design of the MMF will remain flexible as the Planning process is furthered and all comments are received and discussed with the various agencies and the Township of Springwater. It is anticipated over the coming months as this work is undertaken, there will be greater clarity on the implications of the Waste-Free Ontario Act. As information becomes clear and development of the project is furthered (including building sizing and design), sections of this Business Case will be updated and provided to County Council.

Background/Analysis/Options

Further to a financial analysis undertaken in 2014, this item presents an updated Business Case for the Materials Management Facility (MMF). Information from technical studies undertaken at 2976 Horseshoe Valley Road West, Springwater, has now allowed for refined, site-specific development and capital cost estimates. With this, a quantitative, cost/benefit analysis has been completed for various long-term transfer options. This report also includes an assessment of the business and operational impacts and associated risk. It is noted that the Business Case for the MMF has been impacted significantly by the Waste-Free Ontario Act – set to transition responsibility for the blue box recycling program from municipalities to the Producers.

The Project Team (including County Finance) has prepared the Business Case with the assistance of GHD Limited (GHD), the County's project consultant, who were retained to refine the conceptual design and associated costing based on their knowledge of site conditions and transfer station design and operations.

It is noted that this item is only a summary of the comprehensive analysis undertaken and that the full report, *County of Simcoe – Business Case – Materials Management Facility*, August 23, 2017, is provided for reference in Schedule 1.

Updated Conceptual Design and Costing

Detailed in the Business Case are various assumptions related to the County's requirements for long-term transfer capacity. Most pressing is the imminent closure of County landfills and preparation for long-term export of garbage. Given the development of the County's Organics Processing Facility (OPF), it is assumed that only short-term capacity for transfer is required for organics. The greatest change, however, from the 2014 assessment is the blue box recycling transition – and no long-term capacity to manage transfer of this material. Although there is the possibility that a County facility could manage the transfer of recycling on a fee-for-service basis, Project Options considered in this analysis assume no flow of recycling to the MMF after 2022.

GHD were retained to consider conceptual designs for the MMF based on the anticipated transfer requirements noted above and provide costing. Their technical memorandum and conceptual designs are provided in the Business Case (page 43 of Schedule 1). In summary, the designs consider two options – a transfer facility sized for long-term garbage or a modified design with some additional floor space for blue box recycling until 2023.

It is noted that site-specific costs for the MMF have increased from the 2014 analysis. Some increased costs are attributed to site development expenditures such as paving, site servicing, and County Road 22 improvements which will be required at 2976 Horseshoe Valley Road West, Springwater. Co-locating both the MMF and OPF, however, has mitigated the impact of these costs significantly as they are shared between both projects. Also, GHD's conceptual designs for the building have considered site conditions (such as topography) and how materials will be efficiently managed to mitigate potential impacts. This has increased the overall size of the building from the 2014 analysis – and resulted in increased projected capital costs for the building itself.

Description of Project Options

Based on the above assumptions regarding the long-term management of various materials, Table 1 summarizes the three Project Options and various considerations discussed in the MMF Business Case.

Table 1: MMF Business Case – Summary of Project Options

Option	Description	Materials Considered	Considerations
Project Option 1	continue to contract transfer service for garbage, organics, and blue box recycling	<ul style="list-style-type: none"> • garbage • organics until 2022 • blue box recycling until 2023 	<ul style="list-style-type: none"> • analysis assumes current contracted pricing for transfer – risk of uncertain future market conditions and pricing
Project Option 2	develop MMF with long-term capacity for garbage	<ul style="list-style-type: none"> • garbage • organics until 2022 	<ul style="list-style-type: none"> • without recycling capacity, no CIF funding (\$2M loss) • would require contracting transfer for blue box until 2023
Project Option 3	develop MMF with long-term capacity for garbage, blue box capacity until 2023	<ul style="list-style-type: none"> • garbage • organics until 2022 • blue box recycling until 2023 	<ul style="list-style-type: none"> • would require additional capital for sizing facility to accommodate blue box materials • CIF funding could be applied

Methodology

For consistency, the cost/benefit analysis of transfer options utilized a similar methodology to that outlined in the OPF Preliminary Business Case (presented in Item CCW 17-222). Costs associated with each option were calculated over a 20-year operating period and, in addition, a Net Present Value (NPV) was determined. For the “status quo” option, current contracted pricing was assumed (with 2% inflation applied annually). Project Options related to development of the MMF considered revised capital estimates for site development and the building and estimated annual operating and maintenance costs for the facility. Further details and assumptions are discussed fully in Section 7 of the MMF Business Case (page 26 of Schedule 1).

It is noted that the Business Case was also extended to consider business and operational impacts (a qualitative assessment) and risks associated with each option.

Conclusions

- Based on the financial analysis and assumptions outlined in the Business Case, development of a County facility to manage the long-term transfer of garbage and blue box recycling until 2022 would have the lowest total costs over the 20-year period. During the 20-year operating period, the analysis indicates considerable annual savings for this option as greater tonnages of garbage are managed with the closure of County landfills.

- Without blue box material and assuming consistent, long-term pricing for contracted transfer services, the status quo option has the lowest 20-year NPV. However, a sensitivity analysis indicates significant risk associated with assumptions on long-term pricing for contracted services. Should procurement of transfer services increase pricing even slightly, the 20-year projections would be considerably impacted – and the NPV of all Project Options similar.
- In regard to the qualitative analysis, there are noted advantages to pursuing transfer infrastructure. Operationally, development of the MMF would provide secure, long-term control of our own waste. This would have a positive impact on collection operations, management of outbound material, and flow control. Without development of new disposal or processing capacity for garbage, it would allow the County control over costs to manage our garbage in the long-term. In addition, this space would allow for consolidation of Solid Waste Management operations – including space for truck servicing, an administration area (including meeting space), and education centre.
- Continued reliance on outside contracts for transfer brings risk associated with cost increases, long-term availability, and control over our waste management operations. With limited transfer options in this region, the County is indeed vulnerable to market supply/demand.

Moving Forward

Furthering development of County-owned transfer capacity still remains the recommended approach in preparation for long-term, secure management of our waste. With the direction for no new landfills in the County, preparation for long-term transfer of garbage to final disposal or processing locations is increasingly important. It is anticipated that the last County landfill will close by 2029. Given the lengthy approvals process for waste management infrastructure, it is imperative that planning for future transfer continue.

Final design of the facility will remain flexible as the Planning process is furthered and all comments are received and discussed with the various agencies and the Township of Springwater. It is anticipated over the coming months as this work is undertaken, there will be greater clarity on the implications of the Waste-Free Ontario Act and blue box transition. It is noted that should assumptions regarding the blue box program change, managing this material at the MMF would have a positive impact on the project – the benefit of economies of scale. The MMF would significantly benefit from additional revenue and cost sharing of annual operational expenses.

It is recommended that staff continue monitoring the blue box transition and provide opportunity for on-going discussion with the Continuous Improvement Fund (CIF). Sections of this Business Case will be updated and provided to County Council as more details are known. In regard to CIF funding, staff will continue to submit documents to meet the required deadlines. Should delay in approvals jeopardize meeting funding deadlines, this will be communicated to County Council and the implications on the financial analysis discussed further.

Financial and Resource Implications

The financial implications of development of a County MMF have been discussed in detail in the Business Case. Funding for this capital project has been included in the Long Term Financial Plan (LTFP). It is anticipated that funds would be provided from the Solid Waste Management reserve to be outlined in future reports.

Operating and maintenance costs for the facility would be budgeted annually – noting that currently, approximately \$1M is budgeted annually for transfer services.

Relationship to Corporate Strategic Plan

This item supports the Solid Waste Management Strategy recommendation to develop transfer infrastructure to manage garbage and recyclables generated within the County.

Reference Documents

Item CCW 14-253 (August 12, 2014) Transfer Facility Assessment

Item CCW 17-174 (June 13, 2017) Environmental Resource Recovery Centre – Project Update

Attachments

Schedule 1: Report – *County of Simcoe – Business Case – Materials Management Facility* (August 23, 2017)

Schedule 2: MMF Project Options – Projected Cash Flow Analysis



for CCW 17-223
Schedule 1.pdf



for CCW 17-223
Schedule 2.pdf

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August 23, 2017
August 23, 2017
September 18, 2017
September 26, 2017