

Completion Report for Studies
Town of St. Paul Feasibility Study
GMF No. 15052
October 13, 2017
FINAL

1. **A.** The Town of St. Paul had multiple affiliations with Feasibility Studies that included but were not limited to:

Name	Company	Title	Email
Xiaomei Li	Alberta Innovates	Senior Advisor/Bioenergy	xiaomei.li@albertainnovates.ca
Keith Henn	Tetra Tech	Vice President, Bioenergy	keith.henn@tetrattech.com
Wilbert Yang	Tetra Tech	Business Developer Director & Senior Waste Management Engineer	wilbert.yang@tetrattech.com
Dany Robidoux	Eco-Ouest	Director	drobidoux@eco-ouest.com
Glenn Andersen	Town of St. Paul	Mayor	gandersen@town.stpaul.ab.ca
Holly Habiak	Town of St. Paul	Chief Administrative Officer	hhabiak@town.stpaul.ab.ca

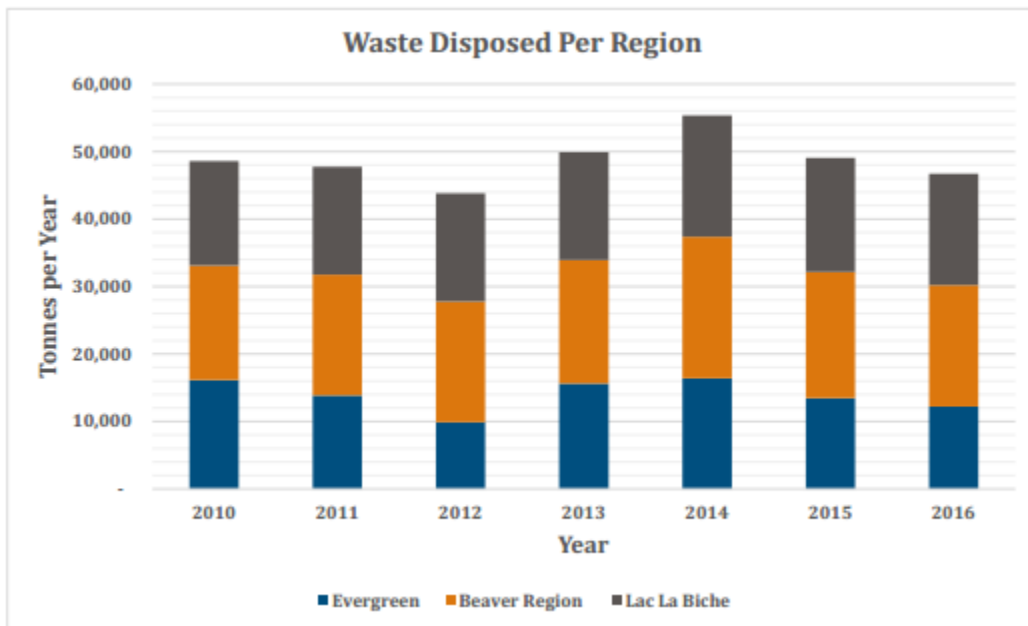
2. **A.** Initially, Town of St. Paul Council formulated the idea that there was a need to be environmentally responsible with citizens reaching out and requesting for better means in the Town of St. Paul. Council conversed on this topic and determined that rather than investing in equipment prematurely, they would apply for funding to help determine the full necessity in the area. After applying and being successful with the funding, very important roles were established with outside organizations who essentially helped the Town of St. Paul with this successful Feasibility Study.

B. This Feasibility Study had the objectives to establish an integrated regional solid waste conversion facility that would be capable of providing:

- Reduce current cost for disposal MSW
- Stabilize the cost for handling MSW in long-term
- Divert waste from landfill
- Create jobs
- Reduce communities' carbon footprint
- Explore opportunities to diversify the local economy, such as greenhouse operation and biofuel production

C./D. This facility will provide long-term stability for organics processing and divert a higher percentage of waste from landfill. The key to meeting these objectives were based on taking samples from 3 Regional Waste Management Commissions that included Evergreen Regional Landfill, Beaver River Region Waste Management Commission and Lac La Biche County. These samples along with network meetings with Stakeholders, keeping them informed played key roles in the development of this study.

3. **A.** The study findings were based on the limited data available from the three regions, the total amount of waste disposed in 2015 is estimated to be 50,000 tonnes. With a 10% contingency factor, the annual disposal rate could range from 45,000 tonnes to 55,000 tonnes per year.



B. Based on the preliminary design and the information provided by the technology vendors, Tetra Tech has estimated the capital and annual operating costs for the project to be as shown in Table 29 and Table 30 below, respectively. These cost estimates are not specific to a set of vendors, as the budgetary information received from the vendors was within the range of this estimate for a comparable scope of supply. It should be noted that two of the three High Solids Anaerobic Digestion (HSAD) vendors provided cost estimates that were essentially equal and were as Tetra Tech had estimated based on previous experience. The Materials Recovery Facility (MRF) vendors each supplied pricing that was essentially the same and confirmed Tetra Tech's estimates from previous experience. Although CP Manufacturing did not furnish a detailed proposal, their estimated cost for the MRF was similar to the proposals Tetra Tech did

receive. Tetra Tech estimated the cost of the composting building and system based on the costs of similar projects recently completed in Alberta.

For further reference, please see pages 64 thru 67 (attached) of the Pre-Feed (Front End Engineering Design) Study for an Organic Waste Processing/Conversion Facility in the St. Paul Region in Alberta for the financial findings and breakdowns.

C. Based on the analysis and findings from this project, the following recommendations are summarized below:

1. Presentations to Regional Municipalities and Commissions: The Town of St. Paul reviewed and acceptance as this project's final reports, will present the findings and recommendations to each municipality across the region. This will be for both administrative leadership teams and Councils.
2. Develop Regional Working Committee: Given that the success of this project will be based on regional participation, it is recommended that a cross regional working team be established to steward next steps.
3. Develop Project Charter for Next Steps: The working committee should approach next steps as the next phase of the project and develop an appropriate project charter to guide specific activities.
4. Detailed Design and Business Plan Development: Moving forward, the following detailed design characteristics will be required to perform the following:
 - a. Confirm the vision and mandate for the Regional Organics Facility;
 - b. Investigate and confirm appropriate access, availability, and revenue sensitivity of local markets as relevant for the Regional Organics Facility's outputs;
 - c. Confirm which municipalities will "partner" together to collectively form a regional governance entity vs. those who wish to be served only as customers vs. those who do not wish to participate at all;
 - d. Confirm desired scope of technical features and infrastructure functionality;
 - e. Confirm final citing of the facility's location;
 - f. Confirm detailed budget/cost estimates;
 - g. Confirm funding sources and availability;
 - h. Update and confirm final governance structure design, including corporate structure and relationship between the board and member/shareholder municipalities; and
 - i. Develop a final detailed business case and plan.
5. Service Delivery Model: Further to Step 4 (i) above, each member municipality wishing to partner together and develop a regional entity should also review and confirm its desired service delivery model.
6. Evaluate Change Impact for each Municipality: Further to Step 4 (iii) above, based on the desired service delivery model, each municipality needs to also evaluate the impact the Regional Organics Facility will have on it. This needs to include existing waste management activities and resources, such as waste collection, recycling / drop-off

depots, transfer stations, waste hauling, landfilling, and public education / communications.

7. Potential Organizational Transformation: If the region elects to create a new single entity to oversee both the Regional Organics Facility and the Evergreen Landfill, organizational transformation efforts will be required. This requires a specific integration plan which needs to consider changes to Evergreen's internal capabilities required, management structure, net new resourcing and budget requirements, internal operating model, and implementation steps.

Referenced from further reference, please see pages 73 thru 74 of the Pre-Feed (Front End Engineering Design) Study for an Organic Waste Processing/Conversion Facility in the St. Paul Region in Alberta for the financial findings and breakdowns.

4. **A.** Moving forward, the Town of St. Paul has begun the process of implementing the compost bin services for each household. As well, Council has passed a motion towards the purchase of an anaerobic digester pending funding from outside sources. We will be continually extending information and reaching out to all Stakeholders to ensure the success of this project not only in our community but also with others in our region. The Town of St. Paul is focusing on the standards that the Province of Alberta has set as goal to divert 80% of municipal organic solid wastes from landfills by 2030. Currently, residential waste is made up of approximately 42% organic contents followed by paper at 20%, plastic at 12% and household hygiene at 8%. This is an excellent opportunity for the Town of St. Paul to become a trendsetter for surrounding municipalities that will educate them through our process all the while benefiting our environment for the future.
5. **A./B.** Our recommendations for other Municipalities interested in pursuing this same avenue would be continual communication with all parties involved including but not limited to Consultants, Administration and Stakeholders. The success of the Feasibility Study was attained much easier with continued communication.

“© 2017, **Town of St. Paul**. All Rights Reserved.

The preparation of this feasibility study was carried out with assistance from the Green Municipal Fund, a Fund financed by the Government of Canada and administered by the Federation of Canadian Municipalities. Notwithstanding this support, the views expressed are the personal views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.”