

STAFF REPORT: ENGINEERING AND PUBLIC WORKS DEPARTMENT



REPORT TO: **Engineering and Public Works Committee**
MEETING DATE: **October 14, 2008**
REPORT NO.: **EPW.08.107**
SUBJECT: **Solid Waste Disposal Site Receiving Area
- Consultant Selection**
PREPARED BY: **Jeffery Fletcher, Manager of Solid Waste
and Environmental Initiatives**

A. Recommendation

THAT Council approve retaining C.C. Tatham & Associates to provide engineering services for the Receiving Area Project in the amount of \$64,448.00 consisting of \$59,448.00 upset fee estimate plus \$5,000.00 contingency fee, as outlined in Report EPW.08.107, and

THAT the Mayor and the Clerk be authorized to execute the Engineering Agreement.

B. Background

The Town has identified that improvements to operational layout of the Waste Disposal Site are required. Current site organization is challenged to provide a waste receiving area that is convenient, safe and encourages greater waste diversion. Patrons are required to tip waste materials at the active landfill face. This creates ongoing conflicts with heavy equipment, puts patrons into driving conditions that are generally incompatible with light duty vehicles and exposes users to hazards associated with solid waste disposal operations

The current layout of the Site requires patrons to drive over 1.5 kilometres on gravel laneways and tracks that are shared with heavy equipment. Some of the lanes traverse slopes of more than 10%. These lanes lead into an active open pit mine that is also used for a storage area and drop off point for brush, clean wood and waste wood. Patrons are also required to drive up to the active landfilling area. This area is often subject to steep slopes, reduced traction, and uneven terrain. This type of driving condition leads to vehicle wear and tear and puts patrons into uncommon situation and potentially dangerous situations related to steep embankment drop offs and conflicts with landfill and mining related machinery and heavy equipment.

Once the patrons arrive at a drop off area – active face or other- the patron is required to exit the vehicle and unload their waste materials. This can also lead to potential hazards related to individuals, large commercial vehicles, and site equipment working in the same area with no physical separation between their respective activities. The Site Operator does make an effort to safely direct traffic and activities; however with sorting areas located throughout the 23 hectares of the Site, areas must go unattended and uncontrolled

An improved central receiving area would eliminate the need for light vehicles to enter the active landfill and mining areas of the Site. The Manager of Solid Waste is significantly

concerned with the potential for a serious incident in the area of the active face or the open pit mine. On a daily basis existing site operations are introducing the general public into construction zones and mining operations. Both the public and commercial site users are entering these areas without adequate knowledge of site conditions or personal protective equipment.

A new receiving area will consist of an elevated vehicle unloading area. The area will be raised to facilitate the disposal of waste, compostables and recyclable items into modular bins and bulking areas. The raised area will involve an engineered “sawtooth” retaining wall structure. A central area to drop all waste items will allow staff to better monitor and control sorting of materials which will result in capturing more recyclables and compostables.

The engineering work will also consider the relocation of the scale and/or scale house and the addition of paved surfaces in the receiving area.

Storm water and drainage considerations will also be large part of this project. The existing site conditions frequently render areas of the receiving area flooded and operational non-functional. This project will implement the use of catch basins, culverts, storm water retention, erosion control and swales. Consideration will be given to water quantity and quality controls considering the potential for contamination and litter debris from site operations.

The new receiving area will centralize all the sorting areas into a single area. The receiving area will eliminate the public conflicts with commercial vehicles as only commercial vehicles will continue to tip at the active landfill face. A central area for waste receiving will allow the Site Operator more control over actives and traffic flow. These improvements will create a physical separation between the general public and the commercial and heavy equipment used on the Site.

The new receiving area will also create a physical separation between the general public and waste materials disposed by other patrons. Although reuse has a place in a waste management program, the illegal scavenging of waste materials is currently an ongoing problem that is difficult to prevent without continuous vigilance and physical separation. The new receiving area will utilize a guarded elevated vehicle area combined with a series of waste/recycling bins and sorting areas. Waste materials will be dropping into a bin from the elevated platform by the site patron. No access will be available to the waste and the waste materials will be tipped in the landfill by a commercial or Site operator. This planned improvement will develop a greater level of sanitation and healthier conditions for site patrons.

Currently, Site staff are tasked with handling many disgruntled Site patrons as a result of internal laneway conditions and related traffic congestion. Site patrons frequently obtain flat tires as a result of random shards of metal and nails located in the wood waste storage and landfill areas. Depending on site conditions and time year patrons often find themselves literally stuck in the mud or snow. A new hard surfaced receiving area will eliminate these problems and remove that nuisance from the experience the patron has at the Site. The new facility will allow the public to better meet their needs offering improved service to the community. If the community perceives that the Town is taking actions to better meet their

needs and increase waste diversion, this will foster improved relations with municipal staff and site patrons.

An aerial photo of the project area on the Site is attached as Attachment 1.

Scope of Work:

The scope of work of this project is to prepare the Preliminary and Detailed Design, Tender Documents and to undertake Contract Administration and Construction Monitoring. This work will also involve a review of the Site Certificate of Approval and application for necessary amendments to the Ministry of Environment.

This project will include, but will not be limited to, the following major tasks:

- Task 1: Background Information
- Task 2: Preliminary Design
- Task 3: Final Design and Contract Documents
- Task 4: Tender Administration
- Task 5: Contract Administration
- Task 6: Construction Monitoring
- Task 7: Record Drawings and Documentations
- Task 8: Warranty Administration

It is anticipated that construction for this project will be complete before December 2009.

Consultant Selection:

The Town prepared a Request for Proposal and issued it on September 10, 2008. The Consultant selection was a single stage process. Proposals consisting of Detailed Work Plans and Upset Fee Estimates (separate sealed envelope) were received from three local consultants.

The Consultant Selection Team, consisting of Reg Russwurm, Tom Gray, Jeffery Fletcher and Sherri Adams, satisfied themselves that the proposals were complete.

Consultants were evaluated based on the following weighted evaluation factors:

<u>Quality Factors</u>	
Firm's Qualifications and Experience on Similar Projects	10%
Project Team's Experience	20%
Project Understanding and Approach	15%
Work Plan, Methodology and Quality Assurance Plan	20%
Project Schedule	10%
<u>Fee Factor</u>	25%
Total	100%

The Consultant achieving the highest combined weighted quality and fee factors was C.C. Tatham & Associates. Therefore, the Selection Team recommends retaining this firm in the amount of \$59,448.00 plus \$5,000 contingency fee for a total upset fee estimate of \$64,448.00. As part of C.C. Tatham's fees they will be preparing a terms of reference and quotes for related geotechnical engineering once the scope of required investigation is better understood.

C. The Blue Mountains' Strategic Plan

Town's Strategic Plan Goal # 2 "Addressing the Town's Municipal Infrastructure needs" is in part satisfied by the recommended action.

D. Environmental Impacts

The provincial policy for municipal waste diversion is 60% by 2008. This new infrastructure will assist the Town in realizing that diversion target. The Town has developed a Waste Diversion Plan (July 2008) and 60% has been developed as a waste diversion goal. An increased focus on waste sorting which will be achieved by the new receiving area will move the Town closer to the 60% goal.

E. Budget Impact

The 2008 Capital Budget provides \$35,000 for engineering services and contingencies related to this project. The 2009 Capital Budget for the construction works will be revised to reflect the expected costs. Sufficient funds (\$25,000) exist within the 2008 Capital Budget year to initiate design.

The Upset Cost Estimate from C.C. Tatham & Associates and project engineering costs is summarised in the table below:

Preliminary Design	\$17,605
Final Design & Tender	\$16,933
Construction	\$24,910
Sub-total	\$59,448
Contingency	\$5,000
Grand Total	\$64,448

This project was part of the Municipal Infrastructure Investment Initiative (MIII) grant application that was successful in receiving \$399,000 in March of 2008. The 2009 Capital Budget is proposing to allocate \$395,352 of the MIII funding to the engineering and construction of this project. The remainder of the MIII funding will support the Hazardous Waste Depot installation which will also be supported by the Federal Gas Tax funding.

In the 2008 Capital budget a total of \$277,000 was allocated to this project from taxation and financed for a total current proposed funding of \$672,352. The proposed sources of project funding are represented in the table below:

MIII Funding for Receiving Area	\$395,352
2008 taxation allocation (financed)	\$277,000
Total	\$672,352

In view of the actual cost of engineering for this project it is anticipated that more funds will need to be allocated from taxation to complete the construction of the new receiving area. The design process will produce an opinion of cost during preliminary design. This will give the Town an opportunity to phase portions, prioritize items or forgo non-critical aspects of the works. However, it is anticipated that the construction phase of this project will be in the order of \$521,000.00. The MIII grant dollars may need to be supplemented by the initial amount allocated from taxation and financed to see the comprehensive works of the receiving area installed. Alternatively, proposed works will need to be scaled back to keep costs within the MIII funding amount. The table below identifies the anticipated total project cost:

Preliminary Design	\$17,605
Final Design & Tender	\$16,933
Construction	\$24,910
Engineering Contingency	\$5,000
Sub-total	\$64,448
Geotech. Sub-Consultant	\$10,000
Equipment (waste bins)	\$44,100
Construction	\$521,404
Construction Contingency	\$5,000
Grand Total	\$644,952

F. Attached

1. Location of Project Area – Solid Waste Disposal Site

Respectfully submitted,

Jeffery Fletcher,
Manager of Solid Waste and Environmental Initiatives

Reg Russwurm,
Director of Engineering and Public Works

