



**The Corporation of the Municipality of Wawa
Staff Monthly Report**

Office of Infrastructure Services

Prepared For: Council Meeting	Report No.: CS 2018-05
Agenda Date: March 13, 2018	File No.: 9.40.1

Subject

Purchase of Landfill Compactor

Summary of the Recommendation

It is recommended that Council approves the purchase of a landfill compactor for the purpose of compacting waste at the Municipal Landfill Site.

Summary of the Issues

The current landfill compactors transmission stopped working and is damaged beyond repair and staff has been unable to find a replacement transmission. The landfill compactor being down occurred during the week of February 19, 2018 after the Corporate Planning Committee meeting discussing of the 2018 Capital Budget.

A rubber tired loader is being used at the landfill site to push the garbage waste. The loader is at risk of future costs to tire maintenance if tires are damaged and is costing valuable space in the landfill due to compaction being minimal without proper equipment compaction. The cost of renting a landfill compactor is \$25,000.00 per month.

List of Stakeholders

- Rate Payers
- Council
- Staff

Respectfully Submitted By:

Prepared By:

**Cory Stainthorpe
Director of Infrastructure Services**

Purpose of Report

The purpose of this report is to explain why the Infrastructure Services Department is requesting approval for the purchase of a landfill compactor.

In addition, the purpose of the report is to recommend that council approves the purchase of a landfill compactor for the municipal landfill site.

Analysis

The Municipality requires landfill garbage compactor to provide the necessary services to maintain operations at the municipal landfill site and expand the use of landfill site by proper compaction.

The current landfill compactor is in the Asset Management Plan to be replaced in 2020, with the landfill expansion project construction to begin in 2019. It was anticipated to budget for a compactor in the 2019 Capital budget.

Due to the mechanical condition of the current compactor, this now is recommended to be completed in 2018. The landfill compactor that was being used is a 1990 CAT loader with compactor wheels attached, although this machine does shred the garbage and help compact the landfill, the weight of the loader is not sufficient enough for proper compaction and moving forward, staff was going to budget for a proper landfill compactor to be purchased for the municipal landfill site.

Landfill compaction is extremely important. The more you can compact the site, the more waste you can dispose of and the longer life expectancy you will get out of your landfill site. A landfill should be compacted a minimum 3 days a week; this includes pushing garbage, compacting garbage and covering the material with sand. Estimated hours per week at a landfill for compaction is a minimum of 12 hours up to 25 hours.

Financial

The current loader requires a transmission to be replaced. The cost is estimated at \$15,000.00 to \$20,000.00. Currently staff has not been able to find a transmission to replace the current one. Due to this, staff has been using the airport loader to push garbage and maintain waste being covered. Since the tires of the loader are rubber, this creates another risk that maintenance costs could increase if the tires need to be replaced.

In addition to requiring a new transmission, the loader also requires future maintenance costs on other mechanical components. The estimated cost of annual maintenance is

\$10,000.00 and the compactor wheels need to be replaced within the near future which range from \$35,000.00 to \$50,000.00.

In 2016 the engine was replaced with a rebuild engine with a cost of \$15,000.00. If staff is successful in locating a transmission, this would be \$35,000.00 in cost since November of 2016 into a piece of equipment that is to be replaced in 2020 and valued at \$30,000.00 if in running condition.

Staff was able to obtain a price of \$24,000.00 per month for a rental compactor. Due to the cost of repairs, time trying to find a transmission for the current piece of equipment, cost to rent a compactor, the maintenance costs of the loader being used and cost of space being lost in the landfill, it was determined the best action would be to purchase a piece of equipment.

The cost of used landfill compactors range from \$50,000.00 to \$300,000.00. The \$50,000.00 to \$100,000.00 equipment price ranges are models from 1990, high engine hours, and no warranty.

The \$100,000.00 to \$150,000.00 equipment price ranges are late 1990s to early 2000s pieces of equipment as is. Engine hours are approximately 7000 hrs + and some have minor warranty for a limited period of time.

The \$150,000.00 to \$225,000.00 price range are 2005 to 2010 models that have been mechanically inspected by the dealership, repaired, ready to operate, hours range depending on the piece of equipment and the equipment comes with compactor wheels, blades, include shipping and also included is a warranty period of 500 hours. Which is approximately 6 months to 1 year depending on use.

The \$300,000.00 and over price ranges are "like new" equipment with low hours, good warranty and also ready to operate.

Purchasing a new landfill compactor is between \$500,000.00 to \$700,000.00 and not necessary due to the amount of use per year for compaction.

Staff is searching for a compactor within the price range of \$50,000.00 to \$100,000.00 that is worth the purchase and expected to last 10 years. The one piece of equipment that seemed to be a good deal was sold before a decision was made and now we're looking at \$150,000.00 and over for a good piece of equipment that will last 15 plus years.

Currently the best offer being reviewed is a 2009 compactor with a price of \$200,000.00 shipped to Wawa. Included are compactor wheels, blade, mechanical inspection, 500 hours of warranty period and ready to operate. This equipment is located in Ontario and would not take long to transport. Some other options of equipment were located in USA or Europe and subject to high shipping costs.

If council agrees to purchase a compactor, the current compactor engine resell value due to low hours is approximately \$12,000.00. There are also compactor wheels on the CAT compactor that could be sold for refurbishment to a company at an approximate price of \$2,000.00 per wheel; (\$8,000.00 total).

Policies Affecting Proposal

The project relates to the Municipal Business Plan section 2.4.1 - Update and Implement the Asset Management Plan, and 2.1.4 - Key Infrastructure Priorities: Invest in the priority municipal infrastructure projects as identified in the Asset Management Plan.

In Appendix A of the Community Strategic Plan under weakness: Infrastructure has not been maintained or maintained minimally to a "Band-Aid" level due to budget constraints and limited funding from other levels of government. This has resulted in safety issues, poor appearance, unreliable equipment and unusable assets.

This project is in the Asset Management Plan to be replaced in 2020. This information is inaccurate as this machine was made in 1990 and was near its end of life when purchased used.

If this project is approved, the tendering policy would delay how quickly we can purchase the compactor. Council would have to agree on a recommendation to purchase on an emergency basis and not go through a tender process.

Alternatives

Alternative 1

Continue searching for a replacement transmission for the current CAT loader and use the airport loader at the landfill site until a transmission is found. **Not Recommended.**

Alternative 2

Continue searching for a replacement transmission for the current CAT loader and rent a compactor until equipment is repaired. **Not Recommended.**

Alternative 3

Approve the 2018 Capital Budget of \$100,000.00 to purchase a piece of equipment similar in manufacturer year as the existing CAT loader for under \$100,000.00 with no warranty and high engine hours. **Not Recommended.**

Alternative 4

Approve the 2018 Capital Budget of \$500,000.00 for a new piece of equipment with warranty, zero engine hours and ready to operate. **Not Recommended.**

Alternative 5

Approve the 2018 Capital Budget of \$200,000.00 and proceed with the tender process.
Not Recommended.

Alternative 6

Approve the 2018 Capital Budget of \$200,000.00 and allow staff to purchase appropriate equipment immediately due to urgency without going through a tender process for this purchase. **Recommended.**

Conclusion

The approval of replacing the landfill compactor with a newer landfill compactor will provide the Municipality with a number of direct benefits over the long term:

- Increased efficiency to provide services
- Decreased fuel and maintenance costs
- Increased life cycle of equipment
- Increased security of equipment

This will also allow the Municipality to remove the engine from the CAT compactor that was purchased in 2016 and resell it due to low hours. The approximate value is \$12,000.00. The compactor wheels on the CAT compactor could be sold for refurbishment to a company at an approximate cost of \$2,000.00 per wheel (\$8,000.00 total).

If the existing compactor is repaired, the Municipality will be forced to purchase a new compactor within the next 2 years with higher maintenance costs until then.

If the Municipality does not have the proper equipment to compact the municipal landfill site, the Municipality loses valuable space decreasing the life expectancy of the landfill site that is already near its maximum limit.

There is possibility that a piece of equipment worth purchasing at a lower cost than \$200,000.00 may come available, however currently this is the best offer available.

Recommendation

It is recommended that Council approves the budget of \$200,000.00 and purchase a landfill compactor for 2018 without going through the tender process.

Attachments

Information and image of current piece of equipment being reviewed for purchase.