

# Staff Report to Council

**Title:** Vactor Truck Business Case

**Report Number:** Operations-2024-20

**Director:** Infrastructure &  
Development

**Manager:** Operations

**Meeting Date:**  
Wednesday, August 14, 2024

**Date to be considered by Council:**  
Wednesday, August 14, 2024

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## Recommendation:

That Council receive report Operations-2024-20 for information purposes for consideration of purchasing a new vactor truck within the 2025 budget to be considered during 2025 budget deliberations.

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## Executive Summary:

The vactor truck is a versatile piece of equipment that is used to safely excavate soil using high pressure water that breaks up the ground composition into a slurry and the truck is also equipped with a vacuum hose that removes the slurry into the on-board holding tank. The truck is outfitted with a rodder pump and hose that can be utilized to clean and flush out sewer systems throughout the Municipality. With the current owned vactor requiring a significant number of repairs for the annual safety it was removed from service in March of 2024, as it was determined to that such a significant investment into an older unit was not financially prudent. This unit has already exceeded its recommended replacement date. A review of usage of the vactor unit requirements for the Municipality was undertaken to weigh the options for replacement of the unit versus contracting the service to external suppliers. It was determined through this case study that it would be the most economical to purchase a new vactor truck based on the required and potential usage in the Municipality and opportunity for leasing to gain revenue to help offset some of the cost of the unit.

## Strategic Priorities:

D.16-Ensure the Municipality provides value for money and long-term sustainability

## Financial Considerations:

The current unit requires an estimated \$130,000-150,000 for frame repairs and approximately \$20,000 to address the pre-safety needs and will require an additional \$30,000-40,000 in repairs to the rodder pump system for the vactor to perform sewer cleaning and maintenance.

This would amount to an investment in exceedance of \$200,000 to make the unit operational. Given the overall age of the asset this is deemed to be an undesired investment and it is recommended that the existing asset be disposed of.

The estimated cost for a new vactor truck is \$750,000 – \$800,000 and would be included in the 2025 budget for consideration.

### **Policy:**

GC 2.17 Purchasing and Procurement Policy

### **Context and Background Information:**

The Municipally-owned vactor unit is a 2004 Sterling truck with vactor body. During the annual vehicle inspection, it was determined that the frame on the truck was separated to a point that it would not pass and therefore would need to be repaired.

This results in the municipality being without a significant piece of equipment, which typically would be used on a routine basis due to its use resulting in excavations which are safer and simpler, with the additional benefit of having ready access to the unit being in our fleet. The main jobs that the vactor is used for within the organization are as follows:

- utility locating
- bridge deck cleaning
- culvert maintenance/cleanout
- sign post installation
- relocate/replant trees
- drain maintenance
- stormwater catch basin clean out
- washing of equipment, downtown core, graffiti clean-up off bridges and structures
- sewer/storm backup emergency
- repair to curb stop, sewer cleanout and water valves

Potential additional in-house usage of the vactor includes increased annual flushing of sanitary and storm sewer main. The current goal is to flush 20% of the system on an annual basis. The new provincial requirements related to Consolidated Linear Infrastructure (<https://www.ontario.ca/page/municipal-consolidated-linear-infrastructure-environmental-compliance-approvals>) replaced the various Environmental Compliance Approvals previously issued for components of sewage collection and stormwater management systems.

Requirements identify what must be included in an operating and maintenance manual for such systems. Increased flushing is a component of the approved plan. This year a third-party contractor was engaged to do the flushing of approximately 20% of the sewer infrastructure at a cost of \$22,000.

In consultation with Joe Johnson Equipment, who specialize in vactor equipment sales and leasing, there are different options as it relates to the purchasing/leasing of a vactor unit. A new 2024 vactor 2100i equipped with a rodder pump set up is approximately \$750,000-\$800,000, dependent on the available options. Another option would be for a 1- to 2-year-old unit coming off a lease agreement that would be \$640,000-670,000.

Below is an example of a lease to own option based on a current unit at Joe Johnson Equipment that will come off a lease at the end of the 2024:

RPO	Kincardine											
Stock	UA005229											
Unit	Combo- 2023 Freightliner											
Salse Rep	Marc Youell											
	Scenario #1	Scenario #2	Scenario #3	Scenario #4	Scenario #5	Scenario #6	Scenario #7	Scenario #8	Scenario #9	Scenario #10	Scenario #11	Scenario #12
RPO Sale Price	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000	695,000
Rental Period (month= 28 days)	1	2	3	4	5	6	7	8	9	10	11	12
Rent Credit %	90%	80%	70%	65%	60%	60%	50%	50%	40%	40%	40%	40%
Monthly Rental Rate	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000
RPO Price to the Customer	683,300	674,200	667,700	661,200	656,000	648,200	649,500	643,000	648,200	643,000	637,800	632,600

The lease to own option structure is that a percentage of your lease would reduce the outright purchase price with a decreasing percentage as the months continue through the lease term.

Staff recommend that if the decision is to purchase a new unit that the unit should be procured outright, as the lease-to-own options would not be contributing all of the monthly allotment against reducing the purchase price.

The estimated time of use for the Municipality would be approximately 28-32 weeks of use per year or approximately 1,120-1,280 hours. The option of leasing a unit each year for 7-8 months would cost between \$13,000-15,000/month, which equates to an average cost of \$112,000 each year with our internal staff operating the unit. A potential issue with leasing a unit is that we could have a difficult time procuring and securing a unit for the required months needed for operation requirements. After 7.14 years of leasing the costs would exceed the cost of ownership of a unit.

The hourly rates of some of the local contractors that we have utilized previously are Kempton Construction at \$270/hr (2-person crew), Ken Jackson Construction at \$310/hr (2-person crew), with neither having a complete setup for flushing and cleaning the sewer system. The contract company CT Environmental hired for the 2023 season to flush the sanitary and storm infrastructure worked at a rate of \$385/hr (2 person crew). The cost of completing 20% flushing was \$22,0000 in 2023. Considering the approximate hours that the Municipality will be needing to operate the unit for the above-mentioned tasks, then approximately \$360K would be required for the internal operations annually. After 2.22 years we would exceed the cost of ownership of a unit.

Currently Municipal staff operate the unit throughout the departments with several individuals currently trained in safely operating the machine. If there were dedicated resources for operating the unit and were able to complete all the tasks that the vector is capable of we could certainly utilize the unit much more than we have in the past. One of the advantages of the vector unit is that it is a safer option to daylighting buried utilities, such as hydro and gas, than a standard tracked excavator. The vector set up allows for quick response when there is an emergency repair required and we would be able to execute the work immediately with the in-house purchase.

Discussion around potential efficiencies was brought forward by staff at a Bruce County Public Works meeting inquiring that if Kincardine were to purchase a new unit would the County and other lower tier municipalities be interested in renting our service to offset the purchase cost. There was some interest in going in this direction dependent on the availability and price for hire. It would be recommended that the Municipality has the potential to rent the unit out to other sectors but would have to discuss the resources required to run the vector full time with staff proposing the hiring of at least one FTE to operate this unit on a day-to-day basis.

The Municipality would benefit from the purchase of a new vactor and although it is a significant cost staff have identified that it will be costly to rent or hire a contractor each year to complete the tasks required. With the concept of either leasing a unit operated internally by staff versus contracting the service out, each year staff would be required as a minimum to put \$112,000 extra in the operating budget. That would equate to a payback of approximately 7 years and if we were required to contract the service completely it would be less than a 3-year payback. With the potential option of renting the vactor to outside sources this would also help reduce the payback commitment. Based on the evidence of usage required, staff recommend that the purchase of a new unit be considered in the 2025 budget for council consideration.

### **Consultation Overview:**

Municipal department leads were consulted to understand usage of the current unit and what potential usages we require throughout the year. External vendors were consulted to review the costing of new units and also the renting/leasing capabilities and monthly costs associated. Local contractors were consulted to understand the capability of their units and what the cost per hour was based on a certain crew size.

### **Origin:**

The current vactor is no longer in service due to it requiring a significant number of repairs and a report was created to understand the need for replacement based off unit cost and usage in the Municipality.

### **Implementation Considerations:**

Consideration should be given to hiring of an additional full time FTE in one of the either Operations or Environmental Services departments if the unit will be utilized on a full-time basis with the option to rent for revenue to external government agencies.

### **Risk Analysis:**

If the current vactor unit is not replaced by an internal unit, rates to obtain a leased unit and contracting the service of outside vendors could increase considerably in the future and put the Municipality in a position of having to continually increase the operating budget to accommodate the vactor truck needs.

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**Attachments:** None

**Prepared by:** Corey Voisin, Manager of Operations

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