
Subject: Purchase of a New Backhoe Loader for Welland Patrol Yard

Report to: Public Works Committee

Report date: Tuesday, October 10, 2023

Recommendations

1. That a capital budget adjustment in the amount of \$300,000 gross and net **BE APPROVED** for the purchase of one (1) new backhoe loader in Fleet – Transportation Services and that the project **BE FUNDED** from the Capital Variance Project – Levy.

Key Facts

- As a result of a recent visual inspection report completed by Toromont Cat, it was determined that the current backhoe loader (backhoe) requires significant repairs that if not actioned, would impact the reliability and safety of the backhoe. Failure to complete the repairs would reduce the business unit's current and future service levels as the backhoe would be removed from service.
- The life-to-date cost of ongoing repairs and maintenance of the backhoe has exceeded expected costs. Continuation of expenditures on this backhoe would not be financially responsible as the service life of the backhoe cannot be guaranteed.
- The purpose of this report is to seek Council's authorization to transfer \$300,000 from the Capital Variance Project – Levy (CVP - Levy) to facilitate the purchase of one (1) new backhoe.
- The budget adjustment is to be funded from the CVP – Levy. As of September 18, 2023, the CVP – Levy has an uncommitted balance of approximately \$1,200,000. Any unspent funds at completion of this project will be returned back to the CVP – Levy.
- This purchase would ensure the business unit is equipped with the appropriate resources to meet the Region's current and future service level expectations in an efficient and effective manner.
- Per Section 6.5 (c)(iii) of the Budget Control By-law, Council approval is required if Capital Variance of more than \$250,000 is requested for a project.
- The new backhoe would be acquired in accordance with Procurement By-law 02-2016 as amended as a Single Source Purchase under section 18. (a)(iv) "an

unforeseeable situation of urgency exists and the Goods and/or Services cannot be obtained in time by means of open procurement procedures.”

Financial Considerations

The backhoe was identified for replacement in 2023. A capital budget ask was submitted for the backhoe replacement as part of Annual Fleet Vehicle and Equipment Replacement Program in the 2023 and 2024 Capital Budget process but was deferred for future budget consideration.

Based on the current inspection completed by Toromont Cat, the backhoe requires immediate repairs in the order of \$60,000. Funding the execution of these repairs would allow the backhoe to return to service.

The life-to-date cost of repairs and maintenance of the backhoe are in the order of \$250,000. Further expenditures on repairs and maintenance would not be financially responsible as the vendor can not guarantee an estimated extension of life expectancy.

Niagara Region’s costs for a new backhoe are anticipated to be up to \$300,000 and would be funded through related CVP – Levy request. The proposed replacement backhoe would have similar capabilities to the existing equipment.

The purchasing approval authority for this level of expenditure as a single source under schedule “B” of Procurement By-Law 02-2016, as amended, would be the department Commissioner, the Director of Procurement and Strategic Acquisitions and the Commissioner of Corporate Services/Treasurer.

The budget adjustment is to be funded from the Capital Variance Project – Levy. As of September 18, 2023, the CVP – Levy has an uncommitted balance of approximately \$1,200,000. Any unspent funds at completion of this project will be returned back to the CVP – Levy.

Analysis

Niagara Region Fleet Services purchased the current backhoe with related digging buckets and sweeper broom attachments in 2015 through a competitive procurement process. The equipment was purchased for use by Transportation Operations as part of their fleet complement to perform the following work based primarily out of the Welland Patrol Yard:

- Loading road salt/sand into combination salt/sand/plow trucks,
- Clearing of snow in the patrol yard,
- Road pavement sweeping,
- Storm sewer culvert and appurtenance replacements,
- Asphalt and concrete roadway maintenance and repairs,
- Roadside ditch regrading,
- Culvert cleanout during significant rain/flooding events, and
- Emergency roadway debris cleanup.

The Welland Patrol Yard services Patrol Area 24, including the following municipalities:

- City of Niagara Falls
- City of Port Colborne
- City of Thorold
- City of Welland
- Town of Fort Erie

The equipment is shared with the other three (3) Transportation Operations patrol yards when operational needs require additional or alternate resources. Transportation Operations runs a lean complement of similar equipment with each patrol yard having either one (1) backhoe loader or one (1) wheel loader. An advantage of the current model is that all three (3) of the loader backhoes purchased for Transportation Operations have inter-compatible attachments, whereby the digging buckets and sweeper brooms can be interchanged. Fleet has consulted the business unit and confirmed the ongoing need for this equipment as currently provided.

Presently, the backhoe loader is falling below requirements to meet operational service levels. Critical failures in the past year have included an engine rebuild, a front axle rebuild, and hydraulic and electrical system components. The above-stated repairs have contributed to the life-to-date cost of repairs and maintenance.

Fleet Services staff have completed a visual inspection and assessment of the equipment in consultation with Toromont Cat as the OEM dealer support. The inspection report identified 23 action items and eight (8) monitor items. The main causes of action items are corrosion and wear over time. Although corrosion issues are expected as equipment ages, the rate of corrosion is accelerated due to winter salt handling operations. The cost of undertaking the above-stated repairs is quantified in the Financial Considerations section of this report.

The new backhoe would be purchased in accordance with the Procurement By-law 02-2016 as amended, as a Single Source Purchase in accordance with Section 18. (a)(iv), an unforeseeable situation of urgency exists and the Goods and/or Services cannot be obtained in time by means of open procurement procedures. The justification in support of leveraging this exemption in the Procurement By-law is due to the immediate need to have the replacement in service at the earliest available date to support operations including winter maintenance. Staff have conducted preliminary discussions with various dealers and have identified a replacement of similar specifications is available within the required timelines.

Alternatives Reviewed

1. An alternative to the staff recommendation in this report is the continuation of the status quo, namely the operating investments to maintain the existing equipment to meet the current service levels of Niagara Region's Transportation Operations business unit.

Included in the consideration of this alternative is the additional operating investment required to sustain the expected service life until future replacement and improve service level and reliability. Table 1 below outlines the short-term needs based on identified repairs and projected costs based on lifecycle cost modeling.

Staff do not recommend this option as it does not guarantee the short-term reliability of the asset and exceeds the value required for investment of the asset.

Table 1 – Estimated Expenditure Requirements

Future Needs	Estimated Expenditure
2023	\$61,910
2024	\$35,720
2025	\$36,790
Total Cost*	\$134,420

*Includes non-recoverable HST

2. A second alternative would be to enter into a lease contract for a suitable replacement. At this time, the feasibility of this option is very limited.

Staff do not recommend this option at this time due to limited leasing availability and time to perform the necessary life cycle cost analysis to determine that leasing provides any material benefit over a full out purchase.

Relationship to Council Strategic Priorities

The recommendation in this report aligns with the following Council Strategic Priorities:

Effective Region

- Deliver fiscally responsible and sustainable services.

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Appendices

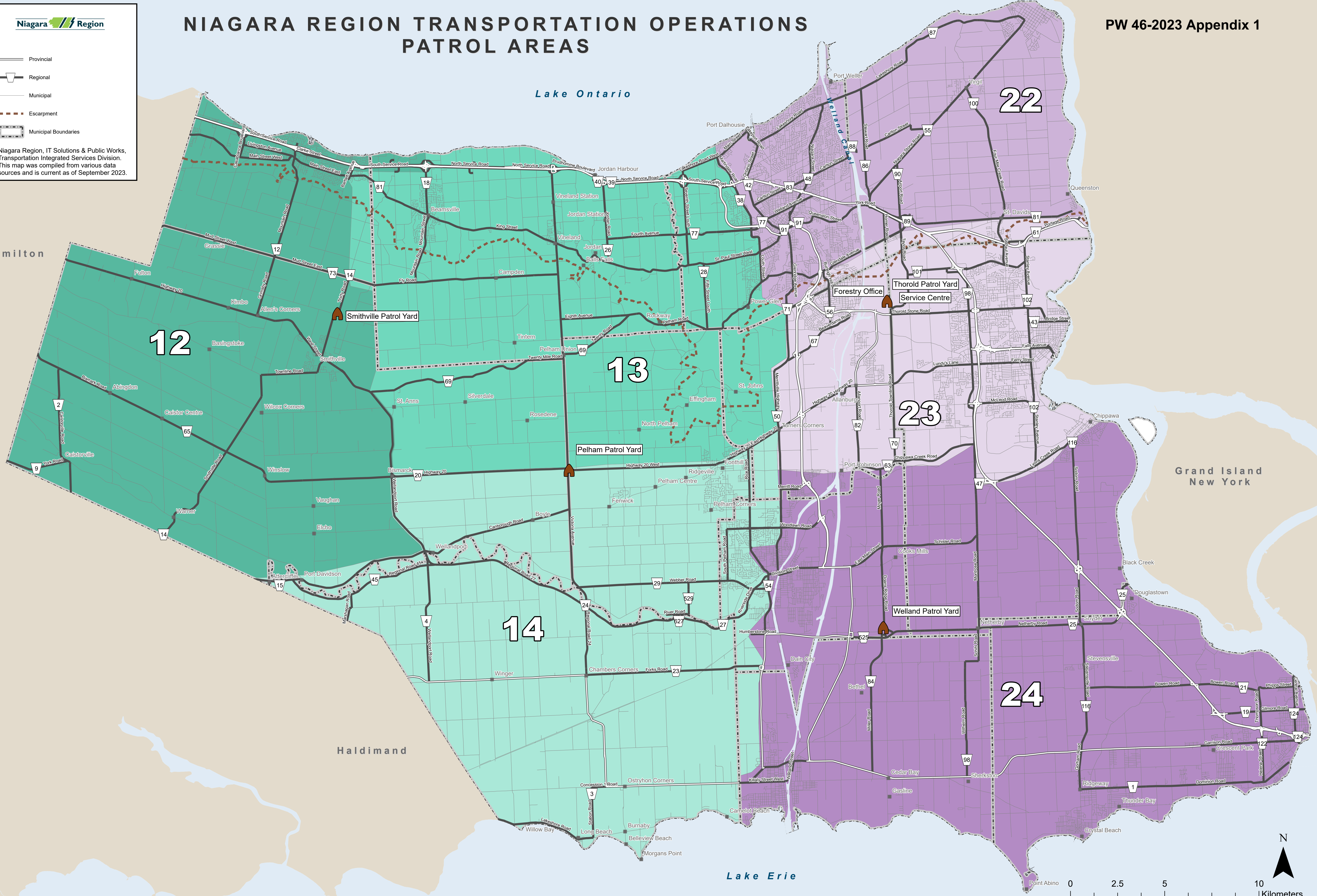
Appendix 1 Transportation Operations - Region Wide Patrol Areas

NIAGARA REGION TRANSPORTATION OPERATIONS PATROL AREAS

-  Provincial
-  Regional
-  Municipal
-  Escarpment
-  Municipal Boundaries

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Hamilton



Lake Ontario

Grand Island New York

Haldimand

Lake Erie



0 2.5 5 10 Kilometers