



REPORT PW-2014-003

TO: Mayor and Members of Council

FROM: Don Creed, Director of Public Works and Parks

SUBJECT: Costing of Brush Chipper Alternatives

RECOMMENDATIONS

That Report PW-2014-003 regarding Costing of Brush Chipper Alternatives be received;
and

That Council approve the contracting out of brush removal services for two weeks commencing May 1, 2014 in the amount of \$14,720 inclusive of the non-refundable portion of HST from account number 01-0030-4214 in order to address the removal of brush related to the December 21 to 22, 2013 ice storm.

DISCUSSION

Purpose

The purpose of this Report is to provide Council with a costing analysis on the various alternatives associated with brush removal.

Background

Staff identified the need to purchase a brush chipper in the 2014 Capital Budget; Council approved \$20,000 for this purchase with the full amount funded from development charges. Staff has not been able to locate a used brush chipper to fill this cost requirement. The used brush chippers selling in the market require a significant amount of maintenance work which can be costly.

An Ontario Ice Storm Assistance Program was recently released by the Ministry of Municipal Affairs and Housing for the December 21 to 22, 2013 ice storm. The Township was identified as a potential recipient of funds for the program. Should the Township be successful in its expression of interest for the program, the Township will be able to recover extraordinary incremental costs associated with the ice storm. Eligible expenditures include those that are required for protecting public health and safety, such as debris clean-up from fallen trees and broken branches. Expenses for this program can be incurred until June 22, 2014 to be considered eligible.

Cost Comparison for Brush Removal

Option 1: Below are the summarized hourly costs for brush removal without the purchase of a brush chipper and through the use of the Township's current equipment:

Equipment	Fuel and Maintenance per hour (\$/hour)	Labour (4 staff) (\$/hour)	Total Costs per Hour (\$/hour)
Backhoe	\$ 18.50	\$110.00	
Tandem	\$ 16.50		
Pickup	\$ 5.00		
Total \$/hour	\$40.00	\$110.00	\$150.00

Option 2: Below are the summarized hourly costs for brush removal with the purchase of a new brush chipper:

Equipment	Fuel and Maintenance per hour (\$/hour)	Labour (4 staff) (\$/hour)	Total Costs per Hour (\$/hour)
Chipper	\$ 14.50	\$110.00	
1 Tonne Truck	\$ 8.00		
Pickup	\$ 5.00		
Amortization of Brush Chipper	\$ 7.50		
Total \$/hour	\$35.00	\$110.00	\$145.00

Note: the amortization of the brush chipper was calculating using a purchase price of \$33,762 (includes the non-refundable portion of HST) and a life expectancy of 4,500 hours.

Option 3: Below are the summarized hourly costs for brush removal using a contractor:

Description	
Labour, Fuel and Maintenance (\$/hour)	\$32.00
Contractor Costs (includes non-refundable portion of HST) (\$/hour)	\$184.00
Total \$/hour	\$216.00

Note: the labour, fuel, and maintenance costs relate to the requirement for Township staff to provide traffic control using a Township owned pickup truck if these services are contracted out.

Option 4: Below are the summarized hourly costs for brush removal using a rented brush chipper:

Equipment	Fuel and Maintenance, per hour (\$/hour)	Labour (4 staff) (\$/hour)	Total Costs per Hour (\$/hour)
Chipper (only includes cost of fuel)	\$ 5.00	\$110.00	
1 Tonne Truck	\$ 8.00		
Pickup	\$ 5.00		
Rental of Brush Chipper (includes non-refundable portion of HST)	\$51.00		
Total \$/hour	\$69.00	\$110.00	\$179.00

Note: the timing of work would be dependent on the availability of rental equipment.

Other Considerations

It is important to consider the following additional factors:

- Loads of brush being hauled to the Wayside Pit will be smaller in size due to load requirement safety issues resulting in an increase in removal time.
- Roadside chipping will result in chips being deposited along ditch lines, wood lots, and natural environments resulting in a reduction in removal time.
- The brush hauled to the Wayside Pit must eventually be chipped with a contracted tub grinder which costs approximately \$1,000 per hour.
- Brush chipping is not a one-time use for the Township. Forestry work is an ongoing activity within the Township.
- The purchase of a brush chipper eliminates a second visit required for removing brush during tree removals.

Financial Implications

The costs associated with the various options presented in this report result in the following when compared to the status quo (indicated as Option 1) of using the Township's current equipment (ie. backhoe, tandem, and pickup truck):

- Option 2: 3.5% decrease in costs is realized when purchasing a brush chipper
- Option 3: 44% increase in costs is realized when contracting out brush chipping
- Option 4: 19.3% increase in costs is realized when renting a brush chipper

As noted above, the purchase of a brush chipper (Option 2) results in a decrease in costs compared to the status quo of using current Township equipment (Option 1). The decrease in costs will be realized through increased productivity of both Public Works staff and the utilization of equipment for brush chipping and removal. There will not be a specific decrease in costs associated with a specific operating account, but rather, the staff will be utilized more efficiently in other areas. It is recommended that the purchase of a brush chipper be investigated as part of the 2015 Capital Budgeting process.

Township staff recommend that Council approve Option 3, which is the contracting out of brush removal services for two weeks commencing May 1, 2014 in the amount of \$14,720 inclusive of the non-refundable portion of HST. Option 3 has been recommended due to the lack of current availability of brush chippers for rental and purchase. Also, there are time constraints associated with when expenses can be incurred as part of the Ontario Ice Storm Assistance Program (ie. only until June 22, 2014).

Should the Township not be chosen for grant funding with the Ontario Ice Storm Assistance Program, these contracted costs will be funded from account number 01-0030-4214 in order to address the removal of brush related to the December 21 to 22, 2013 ice storm. This account will be assessed at year-end to determine whether there is a surplus/deficit in the account. As indicated in By-law No. 2014-023, if winter maintenance expenditures exceed the amounts budgeted, the deficit will be drawn from the Winter Maintenance Working Reserve, account number 01-0013-3205, which currently has a balance of \$50,000.

Applicable Legislation and Requirements

Not applicable