

This document can be made available in other accessible formats as soon as practicable and upon request

**STAFF REPORT: Infrastructure and Public Works**



**REPORT TO:** Committee of the Whole  
**MEETING DATE:** June 27, 2016  
**REPORT NO.:** CSPW.16.096  
**SUBJECT:** Maintenance Gravel Budget Requirements  
**PREPARED BY:** Jim McCannell, Manager of Roads and Drainage

**A. Recommendations**

THAT Council receive Staff Report CSPW.16.096 entitled Maintenance Gravel Budget Requirements;

AND THAT Council grant pre-approval of the 2017 Roads and Drainage Operations Budget for the purchase of maintenance gravel at a total budgeted amount of \$300,000;

AND THAT Council directs Staff to tender in the fall of 2016 for the purchase of maintenance gravel to allow for spring 2017 placement of gravel.

AND THAT Council direct Staff to include \$25,000 increases in the 2018 and 2019 Operating Budget for Council's consideration.

**B. Background**

In 2011 Council directed Staff to tender for maintenance gravel in the fall so as to have a Contractor available for the early spring of 2012. To facilitate this, pre-budget approval was granted. Staff would like to follow the same process again in 2016 to ensure that a contract is place for the spring/ summer of 2017.

It was recognized by Council as being better to have maintenance gravel placed earlier in the spring / summer. The primary reason for placing gravel in the spring is to reduce loose gravel being thrown into the roadside ditches by snowplows and the resulting ditch maintenance cost to remove the gravel. If the gravel is placed in the spring, it becomes well compacted and tightened by the year's traffic prior to snowplowing. It is recommended that gravel would be placed between June 1 and July 15 in any year once load restrictions are removed. Once the gravel has been placed and shaped, calcium chloride will be applied for dust control and to help retain the gravel.

If budget preapproval is granted, the work can be tendered late fall/winter of 2016 for spring 2017 placement. The recommended budget for gravel in 2017 is \$300,000 to purchase around 32,000 Tonnes.

2018 and Beyond

In order to maintain the 128 kms of gravel roads the Town enjoys, the Town should place 75mm (3 inches) of gravel every 3 years. To meet this level of service requires the placement of 40,000 Tonnes of gravel each year. Currently the Town is purchasing 30,000 Tonnes annually. Between 2005 and 2010 the Town purchased only 16,000 Tonnes annually. Over this time period the Town's gravel roads fell more into deficit. Between 2010 and 2016 the budget has increased to allow for the purchase of more gravel each year. In 2015 and 2016 the Town purchased approximately 30,000 Tonnes annually. The Town's gravel roads remain in a deficit and more gravel is needed to bring the gravel roads to the expected condition and level of service.

In order to alleviate the gravel deficit position the maintenance gravel budget needs to be increased to allow for the purchase and placement of 40,000 Tonnes annually. Staff is suggesting budget increases as outlined in the table below.

Year	Baseline Gravel volume (Tonnes)	Gravel Volume Increase (Tonnes)	Total Gravel Volume (Tonnes)	Estimated cost per Tonne	Budget Amount	Budget Increase
2016	30,000	0	30,000	\$9.11	\$273,000	
2017	30,000	2,000	32,000	\$9.30	\$300,000	\$27,000
2018	32,000	2,000	34,000	\$9.48	\$325,000	\$25,000
2019	34,000	2,000	36,000	\$9.68	\$350,000	\$25,000
2020	36,000	2,000	38,000	\$9.87	\$375,000	\$25,000
2021	38,000	2,000	40,000	\$10.07	\$400,000	\$25,000
2022	40,000	0	40,000	\$10.27	\$411,000	\$11,000

Following 2022 it will take several years to address all the gravel roads in Town. The Town will continue to place a binding agent to help with dust control. Currently the Town is using Calcium Chloride. The dust control helps keep the finer particles locked in the road surface. Without the binder agent the fine particles leave the road as dust and allow the larger stone pieces to dislodge and are lost. Even with a dust control product the roads will lose approximately 2.5 cm or 1 inch of gravel each year.

As the Town's maintenance of gravel roads approaches the best practises of supplying 75mm of gravel every 3 years, Staff will investigate which roads could be candidates for upgrading to a tar and chip surface. At 2016 prices, the Town would require just over 21 years before realizing any pay back from upgrading gravel roads to a hard surface with Tar and chip seal.

Recommendation

Staff is recommending pre-approval of the 2017 Roads and Drainage municipal budget for the purchase of maintenance gravel at a total budgeted amount of \$300,000.

Staff is recommending to tender in the fall of 2016 for the purchase of maintenance gravel to allow for spring 2017 placement of gravel.

Staff is recommending \$25,000 increases in the 2018 and 2019 Operating Budget for Council's consideration.

### **C. The Blue Mountains' Strategic Plan**

This report furthers the Town of The Blue Mountain's Strategic Plan Goal #5: Ensure that our Infrastructure is Sustainable

### **D. Environmental Impacts**

The crushing and moving of large quantities of gravel requires vast amounts of energy. The energy is supplied in the way of diesel fuel. The contractor will be asked to comply with the Town's anti-idling program. The implementation of spring gravel will reduce the amount of less gravel lost during winter control operations, and thereby will result in less truck trips for the replacement of maintenance gravel.

### **E. Financial Impact**

The increased budget will be included in the 2017 Gravel Operating Budget to be funded from taxation. Staff will look for cost saving in other areas of the Roads and Drainage budget to offset this impact to the budget.

### **F. In Consultation With**

Sam Dinsmore, Manager of Accounting and Budgets/ Deputy Treasurer

### **G. Attached**

None.

Respectfully submitted,

**Jim McCannell**

---

Jim McCannell  
Manager of Roads and Drainage

**Reg Russwurm**

---

Reg Russwurm, MBA, P.Eng  
Director of Infrastructure  
and Public Works

For more information, please contact:  
Jim McCannell, Manager of Roads and  
Drainage  
[jmccannell@thebluemountains.ca](mailto:jmccannell@thebluemountains.ca)  
519-599-3131 x 271