

Executive Summary

Introduction

Attached is the audit report containing the results of our audit of the Miscellaneous Roads Winter Maintenance Program. This report evaluates the stewardship over public funds, and also addresses opportunities to improve effectiveness, efficiency and economy of the Winter Road Maintenance and Repair activities. The audit was added to the annual audit program as an emerging issue.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Winter asphalt repair activities are a small but not insignificant component of the roads operating program. Citizen ratings of roads in the most recent survey, (City of Greater Sudbury 2009 Budget State of the Community Report) confirmed that Maintenance of Main Roads had one of the highest "Importance of Services" ratings at 92 percent, however "Satisfaction With Performance" of these services was only 29 percent.

Through this review, the Auditors were looking for a proactive approach and management focus on cost analysis, cost control and performance management, in order to drive value for money and make better and more efficient use of scarce resources.

Scope

The scope of the audit included a review of applicable legislation, walkthroughs, observation of work activities, interviews and a review of documentation pertaining to winter maintenance pothole repairs for the period from January 2009 to February 2010.

Objectives

The objectives of the audit were to evaluate the quality of stewardship and identify opportunities to enhance value for money through more effective, economical and/or efficient management of the winter asphalt patching program.

The audit included an evaluation of the following:

- Compliance with and the effectiveness of purchasing and budgetary controls,
- The methods used to maintain stewardship over the roads, to identify, prioritize, track and resolve road defects, (potholes, heaves and sinks) in an timely and economical fashion based on minimum road maintenance standards,
- The process surrounding utility cuts and the accountability for repairs and maintenance,

- Whether crews were working in a safe, efficient and effective manner,
- Actions taken to achieve value for money in the repair of road defects including potholes,
- Management, control and oversight of contractors and contractor billing from January 2009 to February 2010.

Methodology

The audit used the following methodology:

- Review of industry documentation of standard operating procedures for the repair of potholes
- Review of Municipal Act, 2001, Ontario Regulation 239/02, Minimum Maintenance Standards for Municipal Highways
- Review of Sudbury media articles relating to potholes
- Review of Citizen ratings of roads in the most recent survey, (City of Greater Sudbury 2009 Budget State of the Community Report)
- Review of documentation used for identifying, tracking and repairing potholes including ACR logs, patrol reports, deployment sheets and crew cards
- Review of winter maintenance contracts and contractor invoicing
- Review of budget information in the MMS system
- Review of budget and cost data in PeopleSoft
- Review of relevant tenders and bylaws relevant to the Miscellaneous Winter Roads Maintenance Program
- Review of permits, controls, terms and conditions related to utility cuts
- Review of City quality assurance and standard operating procedures
- Various walk-throughs, interviews and field observations of work practices

Summary of Expenses

In 2009, expenditures for winter asphalt patching activities exceeded the Council approved budget by \$1.6 million or 362 percent. Expenditures for Hired Equipment and Contract Services totaled \$1.14 million based on a Council approved budget of \$35,000.

The following table summarizes 2009 Winter Asphalt Patching Budget and Expenditures:

2009 Miscellaneous Winter Maintenance Program	Council Approved Budget	Staff's In-Year Budget Adjustment	Staff's Revised Budget Amounts	Actual Expenditures	Variance Over Council Approved Budget	% Variance From Council Approved Budget
Asphalt Patching Winter-MMMS - Hired Equipment	\$ 35,000	\$ 96,310	\$ 131,310	\$ 941,761	\$ (906,761)	2591%
Asphalt Patching Winter-MMMS - Contract Services	\$ -		\$ -	\$ 197,594	\$ (197,594)	0%
Asphalt Patching Winter-MMMS Materials	\$ 193,200		\$ 193,200	\$ 440,960	\$ (247,760)	128%
Asphalt Patching Winter-MMMS Labour	\$ 116,700		\$ 116,700	\$ 287,211	\$ (170,511)	146%
Asphalt Patching Winter-MMMS - Own Equipment	\$ 102,300		\$ 102,300	\$ 197,941	\$ (95,641)	93%
Totals	\$ 447,200	\$ 96,310	\$ 543,510	\$ 2,065,467	\$ (1,618,267)	362%

Key Issues

The following eleven issues were rated as high in the audit report:

1. With a budget variance as high as \$1.6 million and 362 percent of the requested budget, clarification of staff's authority to exceed an approved budget is required
2. Management exceeded their authority when an operating contract was extended beyond its original scope by \$423,000
3. Compliance with minimum roads maintenance standards for road patrols is not consistently met
4. City crews lose as much as 25 percent of productivity by restricting pothole repairs to daytime shifts
5. Restricting road crews to artificial geographic boundaries negatively impacts the overall value for money provided by the city
6. Crews do not always follow city and provincial safety procedures in completing roads maintenance tasks
7. With current crew sizes, the city may be paying between 20 percent and 30 percent more per pothole repair than absolutely required
8. The city will continue to overpay for unpaid work breaks if warnings to contractors are not given immediately
9. Public funds will have been wasted if the city does not recover overpayments for unpaid break periods impacting many city departments
10. The current supervisory review process for approval of contractor billing documents does not reject unpaid break periods
11. Damage to a road often extends beyond the road cut section and the cost of the extended remediation is fully borne by a limited roads budget

Summary of Audit Findings & Impact (Measure of Residual Risk)

Category	Total Number of Findings	Number of Findings Considered		
		High (Red)	Medium (Yellow)	Low (Green)
Spending Authority	4	2	2	0
Municipal Maintenance Management System Budget	2	0	1	1
Paper Based Documentation	2	1	1	0
Crew Productivity	6	2	4	0
Inventory Control	1	0	1	0
Crew Size and Safety	2	2	0	0
Standard Operating Procedures	3	0	2	1
Contractor Billing	4	3	1	0
Road Cuts	3	1	2	0
Used Asphalt Plant	2	0	1	1
Citizen Requests Using The 311 system	3	0	3	0
Total	32	11	18	3

Audit findings are classified according to the following severity scale:

Impact	Details
High	<ul style="list-style-type: none">• Key control does not exist, is poorly designed or is not operating as intended• Serious non-compliance to policy or regulation• May result in immediate or material loss/misuse of assets, legal/regulatory action, material financial statement misstatements, etc.• Indicates a serious business control weakness/deficiency requiring immediate action
Medium	<ul style="list-style-type: none">• Key controls are partially in place and/or are operating only somewhat effectively• Some non-compliance to policy or regulation• May negatively affect the efficiency and effectiveness of operations and/or financial reporting accuracy.• Indicates a business control concern requiring near-term action be taken
Low	<ul style="list-style-type: none">• Key controls are in place, but procedures and/or operations could be enhanced.• Minor non-compliance to policy or regulation• May result in minor impact to operations.• Indicates a business control improvement opportunity for which longer-term action may be acceptable
Nominal	<ul style="list-style-type: none">• Housekeeping

Follow-up

A summary of outstanding audit issues requiring follow up will be sent to the Director of Roads according to the timelines established below. The Director is accountable for ensuring management updates are made to the relevant status and the information is returned to the Auditor General within the two week timeframe.

Follow-up of outstanding issues will be conducted as follows:

Impact of Finding	Timing of Follow-up
High	Quarterly
Medium	Semi Annually
Low	Annually
Nominal	Not Applicable

Overall Audit Rating - Weak

In the Auditor general's opinion the overall audit rating for the audit is Weak, as the audit contains several high and medium impact findings for this program. Controls were found to be weak in managing contractors resulting in overpayments. Noncompliance with the Purchasing Bylaw and Book 7 safety regulations put the City and staff at risk. The audit also identified significant opportunities for improvement in operating efficiency and effectiveness for winter asphalt repairs.

This conclusion is only applicable to the function/area of this audit.

It reflects the professional judgment of the Office of the Auditor General based on a comparison of situations as they existed at the time against audit criteria as identified in the scope of the audit. This conclusion is extended to provide reasonable assurance regarding controls. There are inherent limitations in any controls, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even effective controls may provide only reasonable assurance with respect to City operations.

An overall audit rating is a micro opinion based on the severity of the findings for the function audited. It is a positive assurance opinion based on the evidence found during the audit.

The overall audit rating scale is as follows:

Rating	Description
Excellent	<ul style="list-style-type: none">• No internal control weaknesses noted.• Good adherence to laws, regulations, and policies.• Good control environment.• Operations are considered efficient and effective.
Good	<ul style="list-style-type: none">• Several low and/or one or two medium findings.• Minor contraventions of policies and procedures with compensating controls in place.• No violation of laws.• Minor opportunities for improvement in efficiency and effectiveness.
Fair	<ul style="list-style-type: none">• Many medium findings and/or one or two high findings.• Several contraventions to policy.• Minor violations of regulations/laws with minimal impact to City.• Moderate opportunities for improvement in efficiency and effectiveness.
Weak	<ul style="list-style-type: none">• Several high findings and some medium and/or low findings• Controls weak in one or more areas.• Non-compliance with policies put the City at risk.• Violation of law/regulation put the City at risk.• Substantial opportunities for improvement.• Operations are considered consistently inefficient and/or ineffective

Acknowledgement

We wish to express our appreciation for the cooperation and assistance provided to the audit team by all staff involved in this process.