

2011

AUDITOR GENERAL'S STATUS REPORT ON OUTSTANDING AUDIT RECOMMENDATIONS FOR MISCELLANEOUS ROADS WINTER MAINTENANCE PROGRAM



Office of the Auditor General
Bureau du vérificateur général

April 4, 2011 #2011STATUS01

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April 4, 2011

To: Audit Committee

Subject: Auditor General's Status Report on Outstanding Audit Recommendations for
Miscellaneous Roads Winter Maintenance Program - #2011STATUS01

The Auditor General's Office conducted a follow-up review on the implementation status of management's actions in response to recommendations contained in the audit report for the Miscellaneous Roads Winter Maintenance Program (#2010INFRA01) dated May 25, 2010. This report contains the follow-up results on the status of the recommendations included in the report.

Management has made significant progress on implementing outstanding audit recommendations. Further, it appears that management continues to make progress on recommendations not fully implemented. Audit recommendations not fully implemented, as well as management's comments and action plans will be carried forward to our next follow-up review. Continued efforts to implement outstanding recommendations will provide additional benefits to the City through opportunities to improve effectiveness, efficiency and economy of the winter road maintenance and repair activities.

We conducted this follow-up 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.

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

Sincerely,



Brian Bigger
Auditor General

Audit Staff: Carolyn Jodouin, Senior Auditor

CC: Greg Clausen, General Manager Infrastructure Services,
Robert Falcioni, Director of Roads & Transportation Services
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BACKGROUND

The Auditor General's Office conducts follow-up audits to ensure that management has taken action to implement the action plans they provided, in response to recommendations contained in audit reports. We have reviewed the status of the outstanding audit recommendations previously made by the Auditor General to management.

We conducted this follow-up 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.

PROCESS

The follow-up process requires that management provide the Auditor General with a response on the status of each recommendation contained in previously issued audit reports. For those recommendations noted as implemented by management, audit staff conducted fieldwork to verify the accuracy of management assertions. Where management indicated that a recommendation was not yet implemented, audit work was not performed.

Table 1 represents the results of our follow-up on audit recommendations for the Miscellaneous Roads Winter Maintenance Program (#2010INFRA01).

Table 1: Follow-up Results

Report Title and Date	Total No. of Recommendations Reviewed	Results of Current Review		
		Fully Implemented	Not Fully Implemented	No Longer Relevant/ Management Decision Not To Implement
Miscellaneous Roads Winter Maintenance May 25, 2010	32	19	11	2

A listing of audit recommendations implemented by Roads and Transportation Services as well as other responsible departments since the issuance of the audit report is included in Appendix A. Recommendations not fully implemented, together with management's comments and action plan are included in Appendix B. Recommendations not fully implemented will be carried forward to the next follow-up review. Appendix C contains the audit recommendations that are either no longer relevant or management has chosen not to implement.

Recommendations reported as implemented or no longer relevant in this report will not be reported to Council in the future. All recommendations reported as not fully implemented will be included in subsequent follow-up reviews until fully implemented.

CONCLUSION

Management has made significant progress in implementing outstanding recommendations. We also acknowledge that progress has been made on many of the recommendations not fully implemented.

APPENDIX A – AUDIT RECOMMENDATIONS FULLY IMPLEMENTED

Following are a listing of audit recommendations implemented by Roads and Transportation Services and other responsible departments since the issuance of the audit report.

Recommendations:

No.	Recommendation
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| 1. c) | In order to avoid or control overspending through operating contracts, the commitment of annual budget funds must be recorded and confirmed on all tender award forms. |
| 2. b) | Recognizing that a replacement system may not be implemented for some time, the MMMS budget and planning data needs to more accurately reflect actual material, city equipment, labour, hired equipment and contractor costs of activities by area so that it can be used more effectively in budgeting, organizing, directing and controlling Roads Winter Maintenance activities. This can be accomplished without additional cost by more fully utilizing the existing capabilities of the MMMS system. |
| 4. a) | When finding meaningful work for staff becomes a challenge, temporary layoffs should be considered in order to minimize operating costs. An alternative solution would be to identify opportunities for increased flexibility on resourcing arrangements. |
| 4. b) | There needs to be better planning for the coordinated dispatching of pothole crews so that they are sent to areas of greatest need, without geographical restrictions, and across all areas of the city. |
| 4. c) | City crews should report all hazardous potholes they encounter en-route to the roads they are deployed to repair. The foreperson may then direct the crew to complete immediate repairs or place the pothole on a future deployment list. This may increase efficiencies in not having to send a crew out later to that area. It may also reduce the number of citizen complaints and increase citizen satisfaction as potholes are being filled in a timely manner. |
| 4. d) | City crews fill potholes between 8am and 4pm. This is the same time most people are driving on the roads. Filling potholes in the evening would be safer and more productive as there is less traffic on the roads. However, work hours are governed by the existing collective bargaining agreement between the City of Greater Sudbury and |

the Canadian Union of Public Employees and its Local 4705 Outside (Service and Maintenance) Unit and restrict regularly scheduled hours of work to between 8:00am and 4:30pm. Management should continue to pursue opportunities to improve City worker safety as well as crew productivity and costs by repairing potholes after 6:00pm and before 7:00am.

- 4. e) Since some areas of the City have more potholes than others, increased sharing of resources across geographic areas will maximize economy, efficiency and effectiveness.
 - 5. a) Materials should be weighed when they are removed from and/or returned to the depot. This will increase the accuracy of the inventory recorded on the crew cards and MMMS and reduce the amount of the annual inventory adjustment to the general ledger. It is also a basic and essential control in the safeguarding of City assets and in monitoring crew productivity.
 - 6. a) Safety procedures need to be reviewed with all City and contractor crews. In order to achieve this, a comprehensive safety training matrix needs to be developed in consultation with the Health and Safety Officer. Furthermore, standard operating procedures that address safety need to be provided to all workers.
 - 7. c) Clearer direction needs to be given to both City crews and contractors on the standards to fill potholes.
 - 8. a) In order to prevent contractors from billing us for their eating periods and other non-billable breaks in the future, we need to inform all contractors that they are not to bill the City for the half hour unpaid break given to their employees as part of the Employment Standards Act, 2000.
 - 8. d) Superintendents must ensure that crew sizes and rates charged by the contractors adhere to the blanket purchase order as this was the rate that was established through the tendering process. Deviations cannot be made to the terms outlined in the blanket purchase order without retendering the contract.
 - 9. a) The Roads Division is responsible for meeting minimum roads maintenance standards, and can be more effective if given greater control over these processes. If a pothole arises due to a road cut the Roads department should make the repair and charge the company/department that made the cut for the cost of the repair. This will ensure that repairs are done according to minimum maintenance standards, increase efficiencies
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and reduce the City's chance of having a claim due to damage from the pothole.

- 9. b) All utilities requiring cuts into City infrastructure assets should provide ample warranty for the work they performed. Furthermore, permit costs should be sufficient to contribute an appropriate amount to the roads program, to offset the incremental lifecycle costs that will be required to maintain a road that has suffered road cuts.
 - 9. c) Often in the case of water main breaks, damage to a road often extends beyond the road cut section. The roads division should inspect the site of damages, and the costs of these (extended) repairs should be paid by the water/waste water budget.
 - 10. a) It is Management's responsibility to establish and to ensure compliance with internal controls and bylaws. Infrastructure management should obtain clarification of City policies through financial Services regarding the appropriate use of fleet reserve funds and the proper sources of funds for new additions to equipment fleet.
 - 10. b) Management should evaluate the costs and benefits related either to the further modification and use of this piece of equipment, or to its sale or salvage/disposal.
 - 11. a) Management should periodically review the 311 requests to ensure they are being handled efficiently and effectively and that they are closed out only once the work is performed.
 - 11. b) If a call is received regarding potholes in different areas (e.g. various streets), a separate request should be created for each area where the potholes are located. This will enhance tracking and awareness of road hazards to ensure timely repairs.
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APPENDIX B – AUDIT RECOMMENDATIONS NOT FULLY IMPLEMENTED

Following is a list of recommendations not fully implemented, together with management's comments and action plan. Recommendations not fully implemented will be carried forward to the next follow-up review.

Recommendations:

No.	Audit Finding	Recommendation	Management's Comments and Action Plan/Time Frame
1. a)	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.	As it is Management's responsibility to establish and to ensure compliance with internal controls and bylaws, Infrastructure Services Management should obtain clarification of City policies through Financial Services and Legal Services, to determine an actual percentage and dollar threshold over which prescribed Council approval would be required. In addition, changes to Council approved budgets over this threshold amount should not be allowed unless first approved by Council.	<p>We agree with the need to have a clearer policy on budget reallocations. Finance has been working on a budget reallocation policy which will be presented to Council in the fall of 2010. In emergency situations such as that which were experienced in the spring of 2009 with potholes, we will strive to ensure that all components of the Purchasing By-law for Emergency Purchases are achieved.</p> <p><u>STATUS:</u></p> <p>The budget reallocation policy which will be presented to Council is currently in draft stage.</p>
1. b)	Management exceeded their authority when an operating contract was extended beyond its original scope and budget by \$423,000.	It is Management's responsibility to establish and to ensure compliance with internal controls and bylaws. Purchasing by-law 2006-270 is clear and specific as it provides circumstances and thresholds where the General Manager is required to report to Council, or where prescribed Council approval would be required. Infrastructure Management should obtain clarification of City policies through Financial Services and Legal Services to improve awareness and	<p>An informal email notification was provided to Council March 19, 2009. In future, staff will follow up with a formal Council Report recognizing the unbudgeted expenditure.</p> <p>Staff proceeded in the most expedient and economical means to address a serious problem which had developed into an emergency, in order to deal with the pothole crisis which was occurring at the time.</p> <p>Staff will pursue the issue of "substantial</p>

		understanding of key financial controls and bylaws impacting their operations.	performance certificates” with Legal and Construction Services and establish a formal process for completion of contracts to avoid / prevent a similar reoccurrence. <u>STATUS:</u> The recommendation was brought to the Standards Committee. Concerns have been raised by Construction Services and therefore, the committee agreed to bring the matter before the Legal department to obtain direction.
2. a)	MMMS planning data does not support productivity management.	Due to the age of the software and limited ability within current MMMS to associate activities and costs to specific road assets or road segments, management should continue to investigate other available programs in the market place that could be used to support budget planning, work order management, productivity tracking and cost analysis to the infrastructure asset level.	Staff agrees that a more updated software program should be pursued to better refine the MMMS system. A Project Development Team is being established to pursue a replacement for the current MMMS system and a new system is expected to be in place by early 2012. <u>STATUS:</u> An RFP for replacement of the MMMS system is being developed. Expected completion date for a new system is the end of 2012.
3. a)	The timeliness, accuracy and availability of roads maintenance information is less than optimal, and impacts economy, efficiency and effectiveness.	It is recommended that the City continue to extend the implementation of an AVL/GIS system that will capture the entire roads infrastructure. This will reduce the need for paper based road patrol reports as the information can be captured timely and accurately, right into GIS. Therefore, our road data will be available for reference purposes. It will be complete, accurate and timely. This information will also assist in the investigation of claims by reducing	Staff agree. Staff have been investigating an electronic road patrolling system which would be tied to the ACR system. It is anticipated this will be in place with the new MMMS system. <u>STATUS:</u> An RFP for replacement of the MMMS system is being developed. Expected completion date for a new system is the end of 2012.

		the amount of time required to trace through paperwork. Since an AVL/GIS system contains all the maintenance information, it can also be used to track potholes and plan the most efficient and cost effective repair for a section of road. This will ensure that once a pothole is identified, it is repaired according to minimum maintenance standards. The system should handle work orders, in order to track the productivity of the crews.	
3. b)	Compliance with minimum roads maintenance standards for road patrols is not consistently met.	Management needs to improve procedures related to road patrol documentation to ensure regulatory requirements for patrols and repairs are consistently met.	<p>Paper copy road patrol records are being kept and are continuously being improved. Staff follow the province's road patrol documentation process. Staff have been investigating an electronic road patrolling system which would be tied to the ACR system. It is anticipated that this will be in place with the new MMMS system.</p> <p><u>STATUS:</u></p> <p>An RFP for replacement of the MMMS system is being developed. Expected completion date for a new system is the end of 2012.</p>
4. f)	Value for money may not be optimized if cost and productivity achievements are not known.	A thorough analysis of cost and productivity should be done by area, for the costs for using internal crews on straight time, and overtime as compared to the use of contractors. This information should be used in scheduling so that the most cost effective method is achieved.	<p>Cost alone is not the only factor to consider when bringing in contractor crews. Other factors are considered when assigning work. Some examples are: Staff must fully utilize permanent City employees prior to having the work done by contractors. The pothole patching contract is intended to supplement city crews when they cannot keep up with the demand and meet the minimum maintenance standards.</p> <p>Overtime costs for city crews must be</p>

			<p>considered outside of their regular working hours. The City's Union agreement limits our employees to twenty hours of overtime per week. This limits available hours for other essential winter control activities.</p> <p><u>STATUS:</u></p> <p>An analysis has not yet been done. The auditors will follow-up to review Staff's analysis of cost and productivity (within existing constraints).</p>
6. b)	With current crew sizes, the city may be paying between 20 percent and 30 percent more per pothole repair than absolutely required.	Management should evaluate the reduction of crew sizes to two and/or four person crews, as it appears the work can be still be done safely and in accordance with Book 7 with a reduced crew size. Furthermore, when we tender, we should tender for a two and/or four person crew. This will reduce the rate per hour with no or minimal impact to productivity or safety.	<p>Staff will review Standard Operating Procedures with the Health and Safety department including crew sizes and their effect on worker safety.</p> <p><u>STATUS:</u></p> <p>Management met with Health and Safety. They will be using two and four person crews this summer on a trial basis. They have decided to keep three and five person crews in the winter due to the cold weather. Audit will follow-up with management in the fall to review the results of using a reduced crew size.</p>
7. a)	Testing is conducted but may not provide conclusive evidence to support decision making.	Management should formalize testing and document the results to support their analysis of costs and benefits of procedures and materials used in pothole patching in order to maximize value for money in the future. The analysis should include, but should not be limited to materials used in the winter months.	<p>The extensive testing that staff have completed on pothole costs and materials will be documented in a formal report to assist in future decision making. Staff continues to research other effective pothole repair methods and materials and liaise regularly with other municipal jurisdictions to share knowledge on best practices.</p> <p><u>STATUS:</u></p> <p>Management is preparing a report to be presented to Council in the fall of 2011.</p>

7. b)	Budget options and/or capital requests may not be supported by a proper business case.	Once the analysis is complete, management needs to develop a proper business case for the solution(s), ensuring that adequate supply of materials and resources are available at all the depots.	<p>Staff have undertaken many trials of different pothole materials and developed costs over the years. Staff will formalize the process and create a business plan to support its Roads needs, along with the appropriate budget funds.</p> <p><u>STATUS:</u></p> <p>Staff will create a business plan in conjunction with the new MMMS system in 2012.</p>
8. c)	The current supervisory review process for approval of contractor billing documents does not reject unpaid break periods.	Before the foreperson signs the contractor's crew card, they should ensure that if the contractors worked more than five hours, they are not charging the City for their eating periods and other non-billable breaks. Eating periods and other non-billable breaks must be identified on MMMS crew cards and contractor billing documents.	<p>The City will give notification to all Contractors that they are not to bill for unpaid lunches and will review with Supervisors the approval process to ensure the City is not paying for unpaid lunch periods.</p> <p><u>COUNCIL RESOLUTION:</u></p> <p>Resolution (#2010-04) was passed by Audit Committee and ratified by Council on June 23, 2010. Part of the resolution was that the Audit Committee instruct staff that, from this point forward, contracts with contractors be paid only for hours worked and not for lunch breaks.</p> <p><u>STATUS:</u></p> <p>Notice was given to contractors.</p> <p>We tested a sample of contractor invoices from 2011 and determined that contractors within both the Roads and Water/Wastewater departments are at times, charging us for lunch periods. Purchasing has added new wording in any new hourly rated contracts which states that contractors working more than five consecutive hours shall take at least a 30 minute eating period in accordance</p>

			<p>with the Employment Standards Act Part VII Hours of Work and Eating Periods. Furthermore, invoices provided to the City must show eating periods taken</p> <p>The approval process was also reviewed with Supervisors.</p> <p>However, Supervisors are still approving crew cards where contractors are billing the City for their eating periods. Improving crew cards where lunch periods are specifically identified may help reduce errors in the future.</p> <p>The auditors intend to further increase scrutiny of procedures and controls supporting contractor billing in future audits.</p>
11. c)	The City may not be aware of some road hazards.	Management should investigate and report on the costs and benefits of offering the Active Citizen Request System (ACR) through the City's internet site, so that requests can be updated directly by citizens.	<p>Staff will review this recommendation with Information Technology and Corporate Communications.</p> <p><u>STATUS:</u></p> <p>Information Technology advised that management will review the recommendation once Waste Management's pilot project is concluded.</p>

APPENDIX C – NO LONGER RELEVANT/MANAGEMENT CHOSE NOT TO IMPLEMENT

Following are a listing of audit recommendations that are either no longer relevant or management has chosen not to implement.

Recommendations:

No.	Recommendation	Auditor's Comment
8. b)	It is also recommended that all MMMS crew cards and summary invoices from City contractors be reviewed for the period January 2009 to date, and that the City recover any overpayments for un-billable eating periods as outlined in the Ontario Ministry of Labour Employment Standards Act. As many other program areas of the City may be impacted, this overpayment recovery process should be completed not only for the pothole patching contractors, but for all affected contractors working for the City. A report of the total amounts recovered, should be prepared by management and presented to Council once this exercise has been completed.	Management has not agreed to identify, collect and report on prior (2009 and 2010) overpayments to City contractors. Management believes that the costs to recover the overpayments would negate any recoveries.
1. d)	Roads Management must assume the initiative to mitigate future over expenditures, as is the requirement of all other City programs and departments.	During our follow-up, management provided the Auditors with minutes from a June 23, 1999 Council meeting when the Roads Winter Control Reserve Fund was established. From these minutes, the reserve was established from under expenditures in roads winter maintenance. It appears that the reserve was established for future over expenditures in both winter control and winter maintenance.