
TO: CITY MANAGER **DATE:** 2009 April 07
FROM: DIRECTOR ENGINEERING **FILE:** 37500 15
SUBJECT: PROPOSED IMPROVEMENTS TO BURNABY'S SNOW RESPONSE OPERATIONS

PURPOSE: To present to Council for consideration a proposed action plan to improve the City's snow response operations based on the results of a comprehensive review of the City's current snow removal practises, standards and resources.

RECOMMENDATIONS:

1. **THAT** Council approve in principle the proposed action plan as outlined in Section 4.0 of this report.
2. **THAT** staff be authorized to advance the proposed improvements for implementation as part of the budget approval process.
3. **THAT** A copy of this report be provided to the following:

Burnaby School District 41, Attention: Mr. Greg Frank; and

The Heights Merchants Association, Attention: Ms. Teri Smith.

REPORT**1.0 INTRODUCTION**

During the months of 2008 December and 2009 January, BC South Coast had experienced unusually heavy snowfall events. The snow storms were unique in their intensities and durations and have set several new weather records for the Greater Vancouver area. During the extended snow storm period, the adequacy of the City's snow removal responses was brought into question and led to an internal/external review of the existing plan.

At the Council meeting of 2009 January 12, Council received a status report from staff on the City's response to the 2008 December snow storm event. Council was also advised by staff that a review of the snow response standards, practices and resources would be undertaken to identify possible improvements. The purpose of this report is to apprise Council of the review conducted recently and its findings and to outline the framework of a possible action plan for Council's consideration.

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2.0 CURRENT SNOW REMOVAL OPERATIONS

2.1 Roads

The City maintains an inventory of approximately 1,656 lane kms of roads that includes the following categories of roads according to their functions:

a) Major Road Network (MRN) roads	319 lane kms	(1)
b) Collector roads	465 lane kms	
c) Bus routes (in addition to those included in a) and b)	35 lane kms	
d) Secondary collector and local roads	<u>837 lane kms</u>	
TOTAL	1,656 lane kms	

Note (1): The City has a contract with Mainroad for winter maintenance for 210 lane kms. The remaining 109 lanes km are maintained by the City.

Snow clearing operations for City roads are prioritized as follows:

- a) Arterial roads including all MRN roads
- b) Collector roads
- c) Bus routes
- d) Residential roads with steep grades that have only one outlet

The performance standards that the City uses for its snow response operations for arterial roads generally follow the standards set for highway snow removal. These include ice patrol and pre-salting of road surface when below zero temperature or snowfall is predicted. Additional salt trucks (actual number will depend on the intensity and predicted duration of the snow fall event) are dispatched to start applying salt on the roads in accordance with the established snow removal priority map when warranted.

Snow accumulations on all other local residential roads are cleared only when the above four priorities have been attended to and there are available resources to perform the work. For snow and ice accumulations on sidewalks, residents in single and two-family residential areas are encouraged to clear sidewalks adjacent to their property while owners of commercial and multi-family buildings, by bylaw, are required to clear sidewalks by 10:00 am on any day the premises are occupied or open to the public. The City will clear sidewalks around bus stops and wheelchair ramps when resources are available.

2.2 Civic Facilities

The City undertakes snow removal work in parking lots, sidewalks and pathways associated with civic facilities including City Hall/R.C.M.P. complex, libraries,

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recreation and community centres and urban trails. There are six levels of priority for snow removal work around civic facilities with parking lots and pathways leading to major civic facilities included in the higher priority category and trail networks in the lower priority category.

3.0 OPERATIONS REVIEW AND FINDINGS

In 2009 January and February, staff undertook a comprehensive review of the current snow removal practices, service standards and manpower and equipment resources with a view to identify possible improvements to enhance the City's snow response program. Meetings were held with Council, The Heights Merchants Association, Burnaby School District 41, and Burnaby Parks and Engineering (Operations and Administration) staff. A summary of the key issues, concerns and challenges raised at the meetings is provided in the following:

a) Issues and Concerns:

- Lack of snow clearing on local and secondary collector roads
- Lack of snow clearing on sidewalks abutting commercial properties and around bus stops
- Vehicular and pedestrian access to schools was extremely difficult during the heavy snow periods
- City's parking lots in the Hastings St corridor lacked snow clearing
- Inadequate public information on snow clearing priority, responsibility and status
- Concerns of inadequate emergency vehicles accessibility to senior/care centres
- Unsafe conditions created by abandoned or illegally parked vehicles on roads

b) Challenges

- Limited staff and equipment resources available to deal with major events such as the one in 2008 December
- Tracking of snow clearing task progress and status
- Situation and status updates to the public on snow removal, garbage service and other service disruptions
- Inadequate storage space for equipment (plows, sanders and trucks) and materials (salt) in the Works Yard

The above summary highlights the key areas of concern identified in the review process and also reflects the public complaints that were conveyed to staff, Council and the business community during the 2008 December snow storm period.

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4.0 RECOMMENDED IMPROVEMENTS

Having reviewed the input received by the City and examined possible options to address the concerns and issues identified in the review process, an action plan is developed and recommended for implementation in 2009/2010. The recommended improvements are summarized under three key categories of works as outlined in Table 1.

Proposed Improvements	Possible Implementation Schedule	Estimated Costs
1. Snow Removal on City Streets		
1.1 Modify the current snow clearing priorities and map as follows: Priority 1: Arterial streets Priority 2: Bus routes and collector roads Priority 3: Local roads with steep grades and have only one outlet; local roads abutting elementary schools, senior centres and long term care homes. Priority 4: All other local roads.	2009 September	--
1.2 Develop a registry of long term care homes and senior centres and include the roads abutting these facilities in Priority 3 snow clearing.	2009 August	--
1.3 Replace and upgrade 4 medium duty waterworks and asphalt trucks for snow removal work on local streets as needed. These trucks are part of the crew truck pool and are due for replacement in 2009/10.	2009 December / 2010 January (delivery)	\$325,000 (vehicles replacement program)
1.4 Purchase 4 sets of sanders and plows for the above trucks and additional replacement sanders and plows.	2009 October (delivery)	\$300,000 (gaming funds)
1.5 Install GPS in all snow trucks for better route tracking, work status reporting and overall service delivery.	2009 October	\$70,000 (gaming funds)
1.6 Extend the existing standby practice to include additional drivers to ensure an adequate coverage is maintained during the Christmas/New Year period.	2009 December	\$8,000 (operating funds)

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Proposed Improvements	Possible Implementation Schedule	Estimated Costs
1.7 Work with School District staff to identify key school access points and include these areas in Priority 3 of the snow response plan.	2009 October	--
1.8 Enhance parking enforcement and remove illegally parked vehicles to maintain public safety and to facilitate snow removal work.	Immediate	--
1.9 Investigate interim options for additional salt and equipment storage until the new Works Yards are constructed.	2010	TBD
2.0 Snow Removal on Sidewalks and City Parking Lots		
2.1 Reassign available Operations staff when snow accumulations exceed 4cm to commence snow clearing at bus stops and wheel chair ramps.	As needed	--
2.2 Update the snow response map to include bus stop and wheelchair ramp snow removal priority.	2009 September	--
2.3 Remove snow on sidewalks and pathways abutting civic facilities by 10 am where the facilities are opened to the public.	As needed	\$2,000 - \$3,000 per event (operating funds)
2.4 Work with the Heights Merchants Association to identify specific City parking lots in the Hastings corridor for priority snow clearing.	2009 October	
2.5 Establish a standby arrangement with selected hired equipment vendors to provide bobcats and backhoes for snow clearing on sidewalks and walkways when required. Increase inspection for sidewalk snow clearing compliance.	2009 November	\$15,000 (Equipment standby fee for winter months)

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Proposed Improvements	Possible Implementation Schedule	Estimated Costs
3.0 Public Communication		
3.1 Update the snow removal pamphlet and create a new web section on snow removal information, priorities and status, garbage service disruption, road condition, etc.	2009 November	\$5,000 (gaming funds)
3.2 Develop multiple public messages on sidewalk snow removal requirement and publish them in local newspapers (December – February).	2009 November	\$3,000 (operating funds)
3.3 Investigate the opportunity of installing additional traffic cameras on selected major roads for condition reporting with link via City web-site.	2009 December	\$50,000 (gaming funds)

5.0 CONCLUSION

The significant snow storm event in 2008 December has generated a wide range of public opinions and comments on the adequacy of the snow removal service in the Greater Vancouver municipalities. The post-event discussions have prompted staff to undertake a comprehensive review of the City's current snow removal practices. Input was.

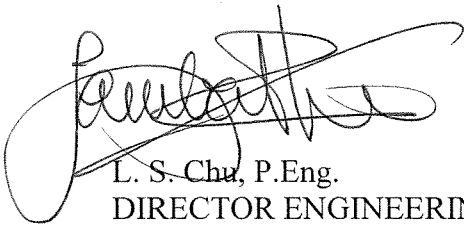
Through the review process, input and suggestions on snow removal service were received from Council, staff, Burnaby School District 41 and The Heights Merchants Association. The comments provided an excellent foundation for improving the current snow response program to create a better snow removal service level and to maintain a safer environment for the public during extreme weather events. The review and assessment have led to the development of a suite of improvements including snow removal on roads, sidewalks and public communication.

The recommended improvements, subject to Council approval, would be brought forward for implementation in 2009 and 2010. The proposed plan could also be used as a template for the development of other weather related emergency response plans. Staff are seeking Council's approval, in principle, of the action plan as outlined in Section 4.0 of this report. Items that are to be funded by operating funds will be carried out as part of the 2009 Annual Operating budget plan. For items to be funded by gaming funds, further funding approval reports will be submitted to Council prior to proceeding.

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During the snowstorm period in 2008 December and 2009 January, staff had received many calls and emails from Burnaby residents concerning the road and sidewalk conditions. Many of these conditions were echoed by Council, The Heights Merchants Association and the general public. The action plan identified in Section 4.0 of this report will improve the existing snow removal service level through a higher level of staff and equipment deployment but it is not intended to be the final solution to all the snow related issues. Staff will monitor future snow response services and their adequacy, and will make appropriate adjustments and/or recommendations to Council for approval as necessary.



L. S. Chu, P.Eng.
DIRECTOR ENGINEERING

LSC:br

Copied to: Director Finance
Director Parks, Recreational and Cultural Services
Fire Chief