



Department Source: Public Works

To: City Council

From: City Manager & Staff

Council Meeting Date: November 4, 2019

Re: Report: Winter Weather Response for 2019/2020 Winter Season

Executive Summary

Staff has prepared for Council consideration a report concerning snow priority routes for winter 2019/2020, with a recommendation that 50 additional lane miles of new third priority routes be added to the priority system list.

Discussion

The efficiency of snow removal operations in Columbia has improved since Council passed an ordinance in 2012 prohibiting parking on signed snow routes when snow is greater than 2" deep; authorized the purchase of new snow removal equipment; and established a rule that after priority streets are deemed passable, residential streets would be plowed and treated, utilizing overtime, when snow is greater than 4". Since these changes, snow priority routes have gradually increased, and although there have been some additional upgrades in equipment, no additional snow removal vehicles have been added to Street Division's fleet since FY2014. As far as personnel, Street Division has received just four additional equipment operators since FY2010.

While staff has been able to make significant strides with respect to pre-wetted salt and other efficiency improvements, the level of staff and equipment resources remain the primary factor in determining lane mile coverage for continuous operations. Attracting and retaining qualified staff continues to be a significant challenge for being able to commit to increased response. While the pay package of last year appears to have decreased some attrition concerns, personnel turnover still remains a concern.

Street Division (44 FTE) is the lead agency for Columbia's winter weather response with a combined fleet of 21 tandem and single axle trucks, 13 one-ton trucks, and a dedicated motor grader with a wing plow. Fleet Operations provides critical support during events by repairing equipment and having it ready for response. The Street Division also relies on shared resources from the Parks & Recreation department, Columbia Utilities and other City departments, utilizing their plow drivers and equipment operators to complete the roster for plow trucks.

For events with 4" of snow or less, the Street Division along with some shared operators are able to respond to the event. As weather is forecasted to move into the area for a larger event, more resources from the other departments such as Solid Waste roll-off containers, Sewer, Stormwater, Water and Electric Division operators and equipment, are added in preparation for response.



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Generally, for first and second priority routes, the outcome for 6" or less of snow is to have near normal, prudent winter weather driving conditions within 24 to 36 hours of event's end. Staff also seek to maintain at least one (1) bare wheel path (may still be wet) as much as possible throughout the event, though during portions of active snow, some roads may become overwhelmed and totally snow covered. This requires continuous operations during the events as well as focused attention after the end of the event. If there is between 4" – 6" of snow, crews will also methodically plow within neighborhoods with a targeted goal of getting all streets to a passable condition within 72 hours of the event's end. Passable condition is defined as passable by a front wheel drive vehicle at slow speeds utilizing prudent winter weather driving. Extenuating circumstances such as extreme cold that can lead to re-freeze or added precipitation might require shifting resources back to first and second priorities.

For events between 6" – 10", additional time is typically necessary to get non-first or second priority streets to passable condition. First priority streets should be near normal within 24-36 hours of event's end, and second priority streets to a minimum of passable within 36 hours, with all streets to passable conditions by 96 hours after event's end. For storms greater than 10", focus is on getting first priority routes to passable condition within 36 hours, but specific conditions (especially temperature) dictate response and the state of the street.

In 2016, staff identified thirteen (13) specific routes throughout the city that are not classified as first or second priority routes, but provide a connection inside a neighborhood to other neighborhood streets, or have specific characteristics. For simplicity, these specific routes are termed "Third Priority" routes. This past winter, staff examined both our response and the areas throughout the city where driver efficiency might be better achieved by adding or removing routes. It was determined that no routes should be removed and that certain routes should be added with a total addition of approximately 50 lane miles.

The recommended third priority route additions are based on staff's analysis for improving response to certain areas. The new routes are site specific and are shown on the attached Ward Maps. Staff recommends that these routes be classified as third priority routes, with consideration of the following three key points:

- 1) While staff believes they can respond to these routes in a similar time frame as second priority routes, that same level of service cannot be guaranteed.
- 2) Staffing challenges in both Street Division and other key departments that share resources, may continue to fluctuate enough that it would not be prudent to set the second priority level of expectation along these third priority routes.
- 3) Signing and enforcement of the no parking ordinance would be required along these routes if classified as first or second priority. Staff believes the third priority routes can generally be handled with one-ton trucks during typical events. While staff has developed a plan to make recommendations to change some of the third priority routes to first or second priority, another year of testing prior to pursuing parking prohibitions is recommended.



For clarification, third priority routes were developed with the thought to provide better response as one-ton trucks assist with first and second priority routes. Although the path may not be entirely free of snow, it should help to decrease the amount of snow pack on those streets, easing snow removal operations once plows have moved onto neighborhood streets, and provide some relief to the neighborhoods. Vehicles will be allowed to continue to park on the third priority streets during larger snow events, although staff will continue to encourage residents to move vehicles off the street via public outreach. With the current recommended third priority route additions, a first, second or third priority route will generally be no more than two streets away from any local street.

There has been some discussion of Homeowner's Associations (HOA) performing their own winter weather response for snow and ice control. To date, no HOA had formalized this type of approach; however, if an HOA has a firm desire to commit resources for a defined area, staff would recommend a pilot with just one HOA working with Street Operation's staff to test the feasibility of this concept.

Due to current limitations in manpower and equipment, if additional priority routes are desired, staff would recommend caution and would want to examine what mileage would need to be removed from the current list, as well as examine the street to determine if parking should be prohibited to accommodate the addition. First and second priority routes are required to comply with the no parking requirements when snow is more than 2" deep, so the impact to adjacent property owners should be considered.

Fiscal Impact

Short-Term Impact: Additional overtime, if any, should remain within current budget.
Long-Term Impact: Unknown at this time, but funding will be reviewed as part of the annual budget approved by Council.

Strategic & Comprehensive Plan Impacts

[Strategic Plan Impacts:](#)

Primary Impact: Public Safety, Secondary Impact: Infrastructure, Tertiary Impact: Operational Excellence

[Comprehensive Plan Impacts:](#)

Primary Impact: Mobility, Connectivity, and Accessibility, Secondary Impact: Livable & Sustainable Communities, Tertiary Impact: Environmental Management

Legislative History

Date	Action
11/05/2018	REP96-18-Winter Weather Response for 2018/2019 Winter Season
12/04/2017	REP100-17-Winter Weather Response for 2017/2018 Winter Season



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10/07/2013	Ord. 21841-Prohibiting parking on priority routes when there is 2" or more of snow
10/18/1993	PR174-93A-Establishing a snow removal policy

Suggested Council Action

For information only.