

2. Service Delivery Review of Winter Operations

Examen de prestation de services des opérations hivernales

Committee Recommendation

That Council receive this report for information.

Recommandation du comité

Que le Conseil reçoive le présent rapport à titre d'information.

DOCUMENTATION / DOCUMENTATION

1. Director's report, Roads and Parking Services, Public Works and Environmental Services Department, dated 1 November 2019 (ACS2019-PWE-RPS-0015)

Rapport du directeur, Services des routes et du stationnement, Direction générale des travaux publics et de l'environnement, daté le 1 novembre 2019 (ACS2019-PWE-RPS-0015)

2. Extract of Draft Minute, Transportation Committee, 13 November 2019.

Extrait de l'ébauche du procès-verbal de la Comité des transports, le 13 novembre 2019.

Report to
Rapport au:

Transportation Committee
Comité des transports
13 November 2019 / 13 novembre 2019

and Council
et au Conseil
27 November 2019 / 27 novembre 2019

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Submitted by
Soumis par:

Laila Gibbons, Director, Roads and Parking Services, Public Works and
Environmental Services Department / Directrice, Services des routes et du
stationnement, Direction générale des travaux publics et de l'environnement

Contact Person
Personne ressource:

Quentin Levesque, Acting Director, Roads and Parking Services, Public Works
and Environmental Services Department / Directeur (intérimaire), Services des
routes et du stationnement, Direction générale des travaux publics et de
l'environnement

613-580-2424, ext. / poste 15135, Quentin.Levesque@ottawa.ca

Ward: CITY WIDE / À L'ÉCHELLE DE LA VILLE File Number: ACS2019-PWE-RPS-0015

SUBJECT: Service Delivery Review of Winter Operations

OBJET: Examen de prestation de services des opérations hivernales

REPORT RECOMMENDATIONS

That the Transportation Committee and Council receive this report for

information.

RECOMMANDATIONS DU RAPPORT

Que le Comité des transports et le Conseil reçoive le présent rapport à titre d'information.

EXECUTIVE SUMMARY

The City of Ottawa operates and maintains a large and complex transportation network. The City of Ottawa (City) is the fourth largest city in Canada and the second largest city in Ontario with a population of approximately 1,000,000. At 2,790 km², Ottawa is half the size of the province of Prince Edward Island and is larger than Toronto, Montreal, Vancouver, Edmonton, and Calgary combined.

During the winter months, snow and ice control services are deployed along the transportation network as per the Council-approved Maintenance Quality Standards. As a result of variable weather conditions, the City has experienced three winter seasons that have exceeded both the short- and long-term averages for many of the various winter event types, including snowfall, freezing rain, and freeze/thaw cycles. The 2018-2019 winter season was extremely challenging, and this was further compounded by back to back snowfalls of over 25 centimetres leading to unprecedented build-up of ice on sidewalks and residential roads which caused severe rutting of roads and ice-coated sidewalks.

Over the past several years, staff have been focused on continuous improvement by implementing several initiatives to enhance operational performance and service delivery, including right-sizing deployment, implementing one-sided winter street parking, adjusting plow routes alternating start and stop locations (reverse plowing) to balance the impact of windrows, conducting equipment pilots, and offering winter overnight parking in city parking garages. Despite positive improvements based on these investments, concerns continue to be raised by councillors and residents with respect to winter operations activities. During and after the 2018-2019 winter season, residents and councillors highlighted concerns with current operational approaches and identified a need for more consistent service delivery across the city. On April 3, 2019, Chair Blais moved a motion directing staff to:

- Consistently apply an approach to meet the expectations and needs of residents across the city;

- Improve service delivery in advance of refreshing the current Maintenance Quality Standards, specifically addressing the unprecedented build-up of ice on sidewalks and severe rutting on residential roads; and
- Conduct a service delivery review of Winter Operations, more consistent service delivery across the city and report back with the findings ahead of the 2019-2020 winter season.

To respond to this direction and the feedback from residents, Roads and Parking Services (RPS) conducted a service delivery review of winter operations between April and September of this year that included a look at consistency of service across the city, potential service delivery improvements, new deployment strategies, and enhanced communications tactics.

Consistency of Service

The service delivery review highlighted an opportunity to adjust the current area boundaries, which had not been reviewed since 2008. The current area boundaries (core, east, west, and south areas) are based on a “one-size fits all” approach. As part of its review, RPS determined a more effective way to structure operations by similar geography, infrastructure and community type.

As a result, staff are restructuring the current area boundaries and moving towards a community-focused approach across the city. The new boundaries will include urban, suburban (east and west), and rural areas. This will ensure that similar infrastructure and community concerns are consistently addressed. For example, given the massive growth of this city, particularly in the suburban areas, communities are denser, leading to more parked cars on the roads, and offer less snow storage. The new area boundaries will ensure works yards within the suburban area boundary specifically deal with suburban issues, promoting consistency across this community type while offering opportunities for innovation and continuous improvement that is dedicated to the unique needs of suburban areas.

Service Delivery Improvements

In addition to changing the area boundaries to support consistent service across similar community types, staff analyzed its current resources across all yards to determine opportunities for resource balancing to support service delivery improvements. For this winter season, RPS has redeployed staff to focus on sidewalk maintenance including

the addition of more staff to operate sidewalk equipment on its overnight shift. This means that sidewalk machines will be deployed 24 hours a day, seven days a week in accordance with the current Council-approved maintenance quality standards. This improvement directly responds to the feedback staff received from residents and councillors regarding the condition of sidewalks, specifically the build-up of ice and snow.

New Deployment Strategies

As part of the effort to ensure consistent services across the city, staff are working to develop and document winter event deployment strategies for the four distinct weather events the city most commonly experiences: major winter event, minor winter event, freezing rain event, and freeze/thaw cycles. These deployment strategies will ensure the right resources are used to respond to the right events, and they build on the right-sizing activities completed as part of the winter operations review from 2016. These plans serve as guidelines for front-line zone supervisors in determining how many staff and pieces of equipment should be deployed based on various weather-related factors, ensuring that residents in similar community types, no matter where they are in the city, can expect consistent service.

Staff have also found opportunities to improve deployment strategies around material application (salt and abrasives), catch basins, and new development handovers from developers to the City. In advance of the 2019-2020 winter season, RPS is making sure all works yards have the materials they need to do their jobs as efficiently as possible. With respect to catch basins, staff are creating “heat maps” that identify areas that are susceptible to pooling as a result of blocked catch basins. Staff continue to develop standards for the handover of new developments to ensure an optimal environment for winter maintenance activities. This is in addition to responding to service requests to clear catch basins and is supported by enhanced communications promoting the clearing of catch basins by residents as much as is practicable.

Enhanced Communication Tactics

One of the most important parts of winter operations is the ability to share timely and accurate information with councillors and residents. During the 2019-2020 winter season, staff will continue its proactive communications tactics, including providing information packages to councillors at the beginning of the winter season, sending messages to Council prior to and during winter storms outlining the deployment strategy

and any other relevant key messages.

Beyond this ongoing communication, staff are also working closely with their partners in 3-1-1 to ensure they have the information and experience in operations they need to respond to service requests at the point of call. RPS staff are working with local schools to share information about winter operations with young children.

Improved communications and strong partnerships are an integral part of the ability for RPS to share information with councillors and residents in support of the changes being made to improve service and ensure consistency across the city.

Overall, RPS is focused on continuous improvement. The service delivery review is the latest investment in improvements to the City's winter operations with a specific focus on consistency of service, predictable deployment, and enhancements to service and communications tactics. This report outlines, in detail, the steps taken to identify these opportunities for improvement, while leveraging the ongoing service enhancements RPS has implemented over the past five years.

BACKGROUND

Roads and Parking Services within the Public Works and Environmental Services Department is responsible for the infrastructure maintenance of the transportation network, pathways and transitway. Roads and Parking Services (RPS) functions as a one-stop shop for operations and maintenance of the City's streets, sidewalks, walkways, multi-use pathways and trail system, 24 hours a day, 7 days a week. The City manages approximately 2,300 kilometers of sidewalks and pathways and 12,700 lane kilometers of roads, transitway and local highway (HWY 174). To put this in perspective, 12,700 kilometres is a little more than the equivalent of driving from Halifax to Vancouver and back.

This network is winter maintained by approximately 510 operational staff from 17 works yards dispersed throughout the city, complimented by contracted crews used to supplement service as needed throughout the winter season. RPS employees and the City's contractors are responsible for ensuring that the transportation network is maintained in accordance with the Council-approved Maintenance Quality Standards (MQS) for Roads and Sidewalks/Pathways. The current MQS exceed the Provincial requirements under the Minimum Maintenance Standards for Municipal Highways and are among the highest service levels offered across the country. The MQS is scheduled

to be reviewed in 2020 and will be the focus of a subsequent report in 2021. The MQS review will focus on Class 5 residential roads, sidewalks, and other pedestrian facilities.

While the City’s MQS provides the standards for winter maintenance activities, these operations are heavily weather dependent. An accessible transportation network and the safety of its users is the number one priority when it comes to winter maintenance. Ensuring safe and passable roadways, sidewalks, winter-maintained cycling lanes and pathways while staying within budget has proven to be difficult in recent years resulting in varying deficits in each of the last five years. This is primarily impacted by the unpredictable nature of recent Ottawa winters and the challenges this has posed for ongoing winter maintenance budgeting. In light of these challenges, Council had made significant investments in winter operations over the past two years and will continue to make further investments in 2020, which will be included in the 2020 Draft Budget.

While it is an industry best practice to forecast and plan using long-term averages to minimize the impact of abnormal seasons and extreme weather events on base budgeting, the past three winter seasons have exceeded both the short- and long-term averages for many of the various event types, most notably - snowfall and freezing rain hours.

Table 1: Winter Conditions by Year

	2016-2017	2017-2018	2018-2019	5-Yr Avg	20-Yr Avg
Snowfall (cm)	310	235	312	251	225
Freezing Rain Hours	89	64	103	77	65
Freeze-Thaw Cycles	74	86	75	75	70
Rain (mm)	303	255	297	242	236

As outlined in Table 1, the 2018-2019 winter was extreme with 312 centimetres of snow, 103 hours of freezing rain, and 75 rapid freeze/thaw cycles, exceeding all the 5- and 20-year averages. As a result, maintenance standards were, at times, difficult to sustain. This was no more apparent than in January and February 2019 where the City encountered multiple back-to-back storms requiring staff and contractors to work 24

hours per day for 21 consecutive days. In fact, for 26 of the 31 days (84 per cent) in January 2019 all City and contracted crews were fully deployed. During the entire winter season (November 1, 2018 to April 15, 2019, a total of 166 days), staff and contractors were fully deployed for 118 days, or 71 per cent of the time. The extreme weather, coupled with the diversity and size of the city, caused residents and councillors to raise concerns with the current operational approaches and consistency of results across the city.

With respect to long-term weather patterns, Ottawa's recent weather-related events, including increased snowfall, rapid freeze/thaw and excessive rain, and the corresponding flooding impacted by the spring freshet, underscore the gravity of the situation and the need for municipalities to adapt to changing weather patterns. The City of Ottawa, specifically the Planning, Infrastructure and Economic Development Department, is currently updating the framework to address both climate change mitigation (reducing the amount of greenhouse gas emissions) and adaptation (responding to the current and future effects). The Public Works and Environmental Services (PWES) Department will continue to work with its corporate partners to reduce the environmental impacts associated with winter maintenance activities.

RPS strives to provide high-quality service and keep residents safe. A key priority for the City is to ensure the safety for all transportation network users by concentrating on ways to meet the challenges of varying weather as well as the diversity and size of the city. As an internal stakeholder of the Strategic Road Safety Action Plan, RPS is committed to the updated principles and initiatives to help reduce the number of collisions resulting in major injuries and deaths. The foundation of RPS' operations is "safety first, service always" and this basic principle is built into all processes and practices.

Furthermore, RPS has undertaken multiple studies to find new and innovative ways to continuously improve and provide high-quality services, keep residents safe and contain costs as much as possible. Since 2015, RPS has focused on continuous improvements and invested in service efficiencies that were successfully implemented and continue to be reviewed and expanded including:

- free overnight parking in City garages during a parking ban,
- one-sided winter street parking,

- alternate (reverse) plow routes, and
- equipment pilots (Blue GRYB rotating icebreaker sidewalk attachment, Python 5000 pothole patcher, etc.)

While these initiatives have produced some favourable results, over the past few years staff identified structural issues and inconsistency with balancing resources that were impeding the ability to provide consistent services while addressing the unique needs of such a large and diverse city. Creating consistency across the city has been identified by multiple councillors, and through discussions with Councillor Blais, Chair of the Transportation Committee. On April 3, 2019, Chair Blais and the Transportation Committee directed staff to:

- Consistently apply an approach to meet the expectations and needs of residents across the city;
- Improve service delivery in advance of refreshing the current Maintenance Quality Standards, specifically addressing the unprecedented build-up of ice on sidewalks and severe rutting on residential roads; and,
- Conduct a service delivery review of Winter Operations, more consistent service delivery across the city and report back with the findings ahead of the 2019-2020 winter season.

The findings within this report respond to the direction from Transportation Committee, feedback from councillors and residents, as well as the findings from previous internal studies conducted by staff over the past three years. RPS is committed to continuous improvement and will be further addressing issues identified by councillors and residents as part of the upcoming MQS review. This MQS review will also respond to [Councillor Kavanagh's direction to staff](#) on April 3, 2019 to review its winter maintenance standards to improve the condition of the roads, sidewalks, and other pedestrian facilities for its residents during the winter months and have staff bring forward a report for consideration in 2021.

DISCUSSION

As a result of Transportation Committee's direction, the service delivery review was initiated to investigate opportunities for improvement to the City's winter operations that can be implemented for the upcoming winter season and beyond. This review builds

upon other continuous improvement initiatives completed within the last few years. It also leverages feedback from the March 2019 Snow Forum held by Councillors McKenney, Leiper, Menard and Fleury, as well as an analysis of service requests and councillor inquiries to identify key issues impacting residents.

The initiatives RPS is undertaking as a result of the service delivery review will enable residents to see a positive difference in the City's winter operations this season. RPS is focusing on continuous improvement, understanding that winter operations are complex and will require prolonged efforts.

RPS is increasing its focus and coverage on the sidewalk network across Ottawa. The goal is to have 24 hours a day, 7 days a week coverage on all sidewalk routes this winter and staff have been restructured to help achieve this goal. Improving the consistency of winter operations across Ottawa was also a primary focus. As an example, RPS is changing its area boundaries for this winter season and moving away from a "one-size fits all" approach.

City staff will also be proactively identifying problem areas (i.e., problematic catch basins or low-lying areas where water pools) for early monitoring and preventative maintenance. RPS's new communications approach will focus on the City's pre-storm strategies and sharing them early and often with residents and councillors.

Overall, the improvements identified above have been organized into three key themes:

- A. Restructuring: organizing RPS to meet the needs of a changing city, more effectively accommodating growth and encouraging innovation, and investing resources where gaps emerge;
- B. Deployment: developing a strategic approach, adjusting processes, building capacity, formally learning from our successes and failures; and,
- C. Communications: ensuring both councillors and residents have timely and useful information about winter operations to assist them in their day-to-day life.

A. Restructuring

RPS's structure has not evolved significantly since it was brought together during amalgamation as a branch of the Transportation, Utilities and Public Works Department. The only significant change took place in 2008 when the Surface Operations Branch was harmonized as part of a strategic alignment initiative that looked to blend several

management structures into one. It was during this time that the current core, east, west and south geographic boundaries were established, focusing on a “one-size fits all” approach.

Since those changes, the city and its infrastructure has continued to grow. Urban areas have seen multiple investments in street renewals, cycling lanes, multi-use pathways, and major changes to the transportation network, including the launch of Light Rail Transit. The growth of suburban neighbourhoods has led to more sidewalks, multi-use pathways, and expansions to arterial roads to support the volume of traffic from these neighbourhoods. Further, suburban neighbourhood design standards have changed with smaller lot sizes and on-street parking, having a significant impact on snow clearing and removal operations. Expansion of neighbourhoods into rural Greenfields has meant a change to Ottawa’s traffic patterns and corresponding adjustments to the transportation network as a result. RPS has continuously adapted its service to meet these changes in each specific community where it arises; however, creating consistency in the approach across Ottawa has been a challenge. The service delivery review highlighted opportunities to adjust current operations to help address the need for consistency across communities within Ottawa.

Changes to Area Boundaries

To improve consistency, starting this winter, RPS has changed its area boundaries to focus more on similar infrastructure and operational challenges within specific community types. The new area boundaries will allow RPS management and staff to narrow their scope to focus on the similarities in operational challenges and infrastructure within a given community instead of trying to tailor operations to focus on all types at once. To support this, the existing structure of core, west, south, and east will be replaced by urban, suburban west, suburban east, and rural. Document 1, a map of the new boundaries can be found at the end of this report.

This change to area boundaries will allow for distinct deployment strategies to be developed that are appropriate for urban, suburban, and rural environments. Managers and supervisors will be better able to focus on creating consistency across like infrastructure city-wide within their specialty. For example, the new area boundaries will allow staff who serve the rural areas of Ottawa to specialize in this community type and better deal with rural issues, like blowing and drifting snow as well as other common operational issues. Innovations and best practices will be easier to deploy, and

knowledge sharing will increase where it can best be used.

The first phase of this change occurred ahead of the 2019-2020 winter with managers and works yards being assigned to each new area. Over the next year, each yard's routes will be analyzed to determine where areas may be more urban, suburban, or rural and reassigned to a yard that best reflects the community type the route is servicing. This will further optimize RPS's organization to drive strategic change within each community context while ensuring consistency across similar community types.

Overall, the changes being implemented will move RPS from a "one-size fits all" service to a more tailored service based on the community infrastructure and specific local pain points identified by councillors and residents. This expertise will create capacity for consistency, agility, and proficiency by community type fostering a culture of decision-making on the front-line. To support this, front-line staff are being provided the tools and authority to make decisions for their specific communities.

Resource Balancing

To further ensure consistency throughout the organization, RPS performed a review of its resources ahead of the 2019-2020 winter season that identified inconsistencies and gaps in resources and practices across works yards. Specifically, the review found inconsistencies with respect to how some yards were structured to support winter maintenance activities. Management worked with its front-line supervisors to identify opportunities to create a more consistent structure at all yards while also taking into consideration the concerns and feedback highlighted by residents and councillors with respect to the need for further investments in sidewalk maintenance.

To this end, staff were redeployed to create greater capacity for the winter maintenance of sidewalks, taking advantage of the efficiency of night-time operations by allocating additional staff to over-night sidewalk maintenance. This balancing of resources allows for 24 hour a day, 7 days a week maintenance of sidewalks in accordance with current Council-approved Maintenance Quality Standards for sidewalks. It is anticipated that this improvement, among others, will help to keep sidewalks as clear as possible throughout the winter season in alignment with the City's MQS.

Changes to the City's existing MQS will be considered as part of the upcoming winter MQS review.

B. Deployment

In addition to restructuring several aspects of winter maintenance operations, further enhancements to tools and processes for deployment have been made as part of the service delivery review. The results are several improved practices and innovations that will enhance winter operations for the 2019-2020 season.

Winter Event Deployment Plans

Through the service delivery review, RPS reviewed its deployment models for all snow and ice events. The goal was to create more consistent approaches that focus on infrastructure and operational challenges within similar communities across the city in alignment with the new area boundary structure (urban, suburban east, suburban west, and rural). To ensure the right response for the right weather event, staff identified the need for formal deployment plans to serve as guidelines for staff in executing their work. Leveraging the knowledge of front-line staff with hundreds of collective years of experience, RPS began to document detailed plans for how and when to deploy resources and equipment within the following winter weather event scenarios: major winter event, minor winter event, freezing rain event, and freeze-thaw cycles.

As mentioned above, these formal plans, once finalized, will serve as a guideline for front-line zone supervisors city-wide in determining how many staff and pieces of equipment should be deployed based on various weather-related factors, such as forecasted accumulation/precipitation, event duration, MQS trigger points, and ambient and surface temperature. As a result, this initiative ensures that residents in similar community types (urban to urban, suburban to suburban, and rural to rural) – no matter where they live in the city – can expect consistent service. This will also allow management to easily identify and track any irregularities in terms of practices or activities. When an irregularity is identified, management can consult with supervisory staff in a timely manner to gather additional information and conduct a more consistent city-wide approach. The ability to gather information in these instances provides the opportunity to either validate the approach taken or provide feedback and set expectations with staff for future deployments.

For significant winter events, RPS will host pre-storm meetings to review weather data and determine the best formal plan to be deployed across urban, suburban, and rural areas, respectively. If management determines a need for additional staff, the casual labour pool would be leveraged and contractors would be called in to supplement the

City's complement of staff.

Developing detailed deployment plans that outline the right approach for the right winter weather event is considered a best practice approach that will create consistency and improve overall service for all network users. In a winter weather event, the appropriate deployment plan will be executed and, once the event has passed, area managers and zone supervisors will conduct a post-storm check-in to review the actual results against the plan to determine what worked and the lessons learned. This will create a continuous learning loop that will allow RPS to routinely improve its approach to all winter events. Additionally, the deployment plans can be leveraged to provide members of Council with information to assist in sharing information with residents to ensure they are aware of what to expect in their community during a specific type of storm.

Equipment Pilots

As part of its ongoing efforts to use the right equipment and materials for the right winter weather event, RPS continues the pilot of four Blue GRYB Rotating Icebreakers with favourable initial results. Staff continue to gather information in order to determine where and when to deploy the equipment for best results. For the 2019-2020 winter season, staff are procuring six additional attachments to increase its ability to leverage this equipment when necessary.

Additionally, RPS are procuring new blades for sidewalk machines that have a hatched pattern blade that is welded onto a carbide blade which should be more effective on ice and hard packed snow conditions for our sidewalk network.

Similarly, the Road Repair Program has been complimented over the last two seasons through the continuation of the Python 5000 Pothole Patcher pilot. The Python is a self-propelled pothole filling machine that allows for a single operator to carry-out asphalt repairs without leaving the cab, making the equipment more efficient and providing better quality results. RPS is actively exploring the feasibility of supplementing the asphalt repair program with these units.

RPS is committed to continuous improvement in its approaches, tools, and resources. Equipment pilots are a fundamental part of this ongoing commitment.

Salt and Material Management

One of the most integral components of winter operations is the use and management

of salt and abrasives (grit and sand). Creating consistency in both application and management of these resources ensures the public's safety is maintained and taxpayers' money is well-managed.

The service delivery review identified two key areas of continuous improvement that RPS can build on from its former winter operations initiatives. The first is expanding the availability of grit at all yards throughout the city. Each material (salt, sand and grit), are best used in certain winter conditions. For example, salt is a de-icer that is required for bare sidewalks or roads whereas it is better to treat snow packed roads and sidewalks with one of the two abrasives (sand or grit) to provide better traction. Ensuring that these materials are available at every yard will allow staff to use the right tools for the right conditions thereby providing residents with consistent service across the city.

Further, RPS will continue to review literature on salt, abrasives, and liquids, research best practices in other municipalities, and conduct field tests to determine what the best materials are for various weather patterns and infrastructure types within the city. These investments will inform a robust materials strategy for future winter seasons.

The second improvement opportunity identified through the service delivery review was to create more consistency in material application for sidewalks. To increase consistent practices for sidewalk maintenance, the City of Ottawa will have GPS technology on board all sidewalk machines for the 2019-2020 winter season. This will improve the ability for managers and supervisors to review routes and, where necessary, adjust practices based on the new statistical data that is generated from this technology. This practice has been successfully employed on roadway salt spreaders and expanding the practice to sidewalk machines allows for greater oversight over the City's fleet and application practices.

Proactive Catch Basin Maintenance

As part of its commitment to continuous improvement, RPS has also looked for opportunities to adjust its deployment approach for clearing litter, debris, and ice from the City's catch basins. To do this effectively, RPS worked with its partners in Water Services to develop a proactive catch basin deployment plan.

Leveraging historical data, staff identified "trouble spots" that have required consistent maintenance to remove blockages that create pooling and the possibility of ice-build up. As part of the catch basin deployment plan, Water Services staff have begun to clear

these locations in advance of the winter season. RPS is creating “heat maps” of these locations and will proactively check for blockages over the winter months.

The catch basin deployment plan will aim to reduce the underlying issues that cause flooding ahead of winter weather events. Results throughout this winter will be evaluated and adapted as necessary to ensure improvements to stormwater runoff and reduction of ice on roadways.

New Development Handover Standards

RPS is working towards developing standards for developers to ensure certain conditions are met prior to the handover of new infrastructure during the winter season. Inspections will confirm safety standards for sidewalk and road winter requirements (no ice) are met ahead of the City assuming control. In addition, timelines will be established for the notification and official handover processes ensuring an optimal environment for winter maintenance activities in all new developments.

C. Communication Framework and Partnerships

RPS, in partnership with Public Information and Media Relations, has developed a communication framework to set the tone and direction for all winter maintenance communication activities internally and externally, including education and partnerships. The framework considers long- and short-term goals of winter maintenance and outlines the content of each communication item as well as the frequency and the method of communication. The framework builds on the successes of previous years and includes new innovative ways of sharing information with residents and councillors.

Communication

In the past, there were inconsistencies in engagement with councillors. In some areas and at some yards, zone supervisors would be responsible for communicating directly with councillors and their assistants on community issues related to winter operations, while in other areas, this role was carried out by the area managers. This inconsistency meant that some yards would respond differently to requests than others, depending on who was dealing with the issue. To ensure consistency across the city by community type, for the upcoming winter season, area managers will be primarily responsible for councillor engagement. This allows zone supervisors the time to focus on executing the new deployment plans in alignment with the new area boundary structure. Adjusting from zone supervisors responding to inquires from councillors' offices to area managers

will allow for consistent messaging, quicker response times, and the ability to identify trends.

To further support councillors, RPS will continue with the communications processes and information packages developed during the 2018-2019 winter season. This package includes prepared graphics and information, social media support, and prepared messaging and templated responses, and will build on previous success by further enhancing proactive messaging ahead of winter events. Updated information, graphics, and new tools will be included in the 2019-2020 package.

Another successful communication process that was trialed at the end of last winter was the pre-deployment plan emailed to councillors on the day of significant weather events. This welcomed process will continue to be used moving forward and provide details each councillor can use to provide information to their constituents. Councillors and residents will benefit from the new formal plans developed as part of this review.

Recently, a communication campaign advising residents to check and clear catch basins near their homes and, if required, call 3-1-1 to have them cleared during a severe rain event was extremely successful. With the assistance of councillors, the messaging was shared with their residents and the result was a reduction in water-related service requests.

The benefits of these new communication processes are improved resident engagement and understanding of winter operations and better partnerships, both internally and externally.

Education Campaigns

In 2019, RPS, in conjunction with the Public Outreach and Communication (POC) team, introduced the education campaign, “Snow Science in the School”. It is a curriculum-based education program for kindergarten to grade 6 students providing information about road safety in the winter, snow removal operations and how roads are cleared. The goal is to help educate students about how the City is a community partner and engage them in safe and helpful snow operations, specifically how they and their families can be partners in maintaining a safe neighbourhood.

RPS will be launching another campaign on the City’s current Maintenance Quality Standards with information about how and when residents can expect their road to be cleared, and why. It will outline the process for residents to notify the City of issues or

unique situations requiring additional attention.

This work is not only done during the winter months. It is important to remind residents of this complex operation year-round. This summer, for the first time, staff attended the teddy bear picnic and educated students and families on the importance of playing safe near roadways and staying back from operating snow machinery. Together these education campaigns will help to educate the residents and build better relationships and partnerships between all road network users. Educating residents about winter operations, equips them with the knowledge and tools needed to inform the City of any safety concerns. Therefore, enabling the City to respond to issues in a timely manner.

Partnerships

RPS has worked closely with other departments to improve communications with councillors and residents over the past several years. In 2019, a training program was introduced to 3-1-1 call agents. The program partnered call agents with operational staff to gain a better understanding of winter operations and internal processes, providing opportunities for call agents to offer residents more detailed responses to service requests, with the goal of providing information to satisfy the resident at the first point of contact and reduce the overall number of service requests.

Similarly, RPS has partnered with By-Law and Regulatory Services to enhance the information packages for private snow clearing contractors. These guidelines clearly outline the responsibility of the contractor regarding snow dumping and explicitly states the fines and consequences for dumping snow on roadways.

Other outreach initiatives being explored is a partnership with Ottawa Police Services to communicate safety messaging during snow events (snow plows on the road) and a partnership with Public Health to educate about sidewalk safety during the winter to parents of young children and seniors.

Improved communication, enhanced education campaigns, and strong partnerships together support RPS in ensuring its messages about winter operations activities are timely, accurate, and reach as many residents as possible. Staff will continue to work closely with councillors to ensure messages are shared consistently across the city.

Continuous Improvements for the Future of Winter Operations

RPS has continuously adapted its service to meet the needs of a growing and changing

city. The service delivery review supports the ongoing shift in the RPS culture to one of continuous improvement.

Staff are committed to providing residents and councillors with more consistent service this winter through adjustments to its current area boundaries, focusing on infrastructure and operational issues in urban, suburban, and rural areas. Staff have also balanced resources to invest in sidewalk maintenance, ensuring additional operators are available across the city for maintenance of sidewalks 24 hours a day, 7 days a week in accordance with current council-approved MQS. Once finalized, the detailed deployment plans developed by staff will support consistent maintenance practices for like-infrastructure in similar communities. This allows staff to determine the right approach for the right winter weather event. Similar changes to deployment plans for salt and abrasives (sand and grit) and catch basin maintenance will also provide more consistent and effective services for Ottawans. Finally, enhancements to the current communications plans will support staff in sharing information with councillors and residents throughout the winter.

RPS will also continue to leverage ongoing service improvements, such as free parking in City garages during winter overnight parking bans, one-sided winter parking on residential streets, and alternate (reverse) plow routes. Staff are committed to working with councillors and their residents to expand these initiatives where operationally feasible during upcoming winter seasons.

Based on the positive results and feedback to-date for the various equipment pilots that the department has implemented, staff are committed to continuing this practice with new equipment as it becomes available, and operationalizing these pilots, where feasible. In the interim, the Blue GRYB Rotating Icebreaker attachment and the Python 5000 Pothole Patcher Machine are expected to continue playing an important role in complementing the City's existing operations.

Lastly, technological advancements are constantly reviewed and tested to determine whether they can help to continuously improve operations. One such technology that staff are currently testing is the RouteSmart Technologies software, a route balancing and optimization software. The pilot is limited to residential (class 5) streets within one zone and has shown some success in the dynamic balancing of routes. Another technology investment staff have made is adding GPS to all sidewalk equipment. This will result in immediate benefits and management will continue to leverage the new

statistical data to make operational improvements.

RPS is committed to a culture of continuous improvement understanding that winter operations are complex and will require prolonged efforts. This winter, staff will continue to monitor its progress towards consistency and service improvement and will adjust tactics as necessary to respond in real-time to emerging issues. Staff will also work directly with councillors to ensure they are providing top-quality services consistently across the city.

In the future, RPS looks forward to adjusting operations as new technology, tools, and approaches become available to support residents during Ottawa's harsh winter months.

RURAL IMPLICATIONS

This is a city-wide report.

CONSULTATION

No consultation was required.

COMMENTS BY THE WARD COUNCILLOR(S)

This is a city-wide report.

ADVISORY COMMITTEE(S) COMMENTS

Not applicable.

LEGAL IMPLICATIONS

There are no legal impediments to receiving the information in this report.

RISK MANAGEMENT IMPLICATIONS

All risks associated with the changes outlined have been addressed in the body of the report.

FINANCIAL IMPLICATIONS

There are no financial implications associated with this report. The 2020 Draft Budget for roads operations will include further investments in winter operations.

ACCESSIBILITY IMPACTS

Increasing the resources dedicated to sidewalk clearing will help to improve accessibility during the winter months.

TERM OF COUNCIL PRIORITIES

The winter operations improvements outlined in this report support the Term of Council priorities with respect to transportation and mobility and healthy and caring communities.

SUPPORTING DOCUMENTATION

Document 1 – New Area Boundaries

DISPOSITION

Upon Council's receipt of this report, staff will continue to implement the changes outlined above for the 2019-2020 winter season.

Document 1

