



City of Kingston
Information Report to Rural Advisory Committee
Report Number RAC-16-004

To:	Chair and Members of Rural Advisory Committee
From:	Jim Keech, President and CEO, Utilities Kingston
Resource Staff:	Damon Wells, Director, Public Works
Date of Meeting:	February 29, 2016
Subject:	Roadside Brushing on Rural Roads

Executive Summary:

This report is for information as per the May 11, 2015 Rural Advisory Committee meeting and the motion from that meeting:

Whereas rural roadsides have become overgrown and Public Works staff struggle to make up for this deficit;

Therefore Be It Resolved That a plan and set of procedures be developed in order to address deficiencies in roadside brushing on rural roads, and a report be brought back to the Rural Advisory Committee in Q1 2016 for future budget consideration.

Recommendation:

This report is for information purposes only.

February 29, 2016

Page 2 of 5

Authorizing Signatures:

ORIGINAL SIGNED BY PRESIDENT & CEO, UTILITIES KINGSTON

**Jim Keech, President and CEO,
Utilities Kingston**

ORIGINAL SIGNED BY CHIEF ADMINISTRATIVE OFFICER

Gerard Hunt, Chief Administrative Officer

Consultation with the following Members of the Corporate Management Team:

Cynthia Beach, Corporate & Strategic Initiatives	Not required
Lanie Hurdle, Community Services	Not required
Denis Leger, Transportation, Facilities & Emergency Services	Not required
Desiree Kennedy, Chief Financial Officer & City Treasurer	Not required

February 29, 2016

Page 3 of 5

Options/Discussion:

This report is for information as per the May 11, 2015 Rural Advisory Committee meeting and the motion from that meeting:

Whereas rural roadsides have become overgrown and Public Works staff struggle to make up for this deficit;

Therefore Be It Resolved That a plan and set of procedures be developed in order to address deficiencies in roadside brushing on rural roads, and a report be brought back to the Rural Advisory Committee in Q1 2016 for future budget consideration.

Roadside vegetation control is an important component to an effective road maintenance program. This is especially important on rural roads, where vegetation is more abundant and includes roadside grass, brush and trees. Roadside grass cutting takes place seasonally, managing the new grass growth with tractor-mowers throughout the growing season. The Forestry Division of Public Works manages the Urban Forest program, EAB removals, Utilities Kingston tree trimming/removals, as well as hazard tree removals on rural roads.

Roadside brush is basically any shrubs, bushes, small trees or long grass. Managing roadside brush is most effectively, efficiently and safely carried out with a hydraulic brusher attachment, mounted on a mobile excavator to mulch the brush within the right-of-way.

There are many reasons and advantages to performing roadside brushing. Removing roadside brush improves sightlines at intersections and curves, improves the visibility of road signs and reduces the potential hazards to vehicles travelling on the road. Beyond public safety, roadside brushing provides value to road maintenance activities by reducing shading on the road, increases snow storage along the side of the road and provides improved access for other maintenance activities.

A procedure has been developed for roadside brushing (see Exhibit A), which details the scope of the work, safety hazards and precautions, as well as best practices for the brushing crew to follow. Due to the hazards inherent with large equipment and the nature of the brushing operation, safety is paramount.

This procedure is a guideline for Public Works supervisors to utilize when inspecting and identifying roads or sections of roads that require roadside brushing. Areas with developing sightline issues will take precedence over routine roadside brushing, however a strategic approach is taken to complete all practicable brushing work in an area before moving to another location.

Prior to a crew being assigned to roadside brushing, a Public Works supervisor will determine the location, limit of work and the extent to which a courtesy notification to local residents is necessary. Resident notification (see Exhibit B) is important in built up areas, where there are a high number of residences that may generate concerns due to the noise of the brushing operation or the mulched wood after the brushing is complete. In remote areas where there are

February 29, 2016

Page 4 of 5

fewer residences, notification may not be required and will be determined by the supervisor. When working near residences the procedure requires the brusher operator to stop the brushing operation at a reasonable distance from where the residential property is maintained, which is basically any point where the resident cuts the grass or has performed landscaping. This avoids removing brush at the fringes of a maintained/landscaped property and reduces the likelihood of a public concern being raised. If, for safety reasons, brushing is required in these areas a supervisor will speak to the resident before performing the work.

The brusher can splinter branches and trees, so to maintain a cleaner result the crew utilizes chainsaws to trim branches and small trees in the road allowance or overhanging branches from private property. As part of the clean-up, the wood chips are blown or swept off of the roadway. This is done in conjunction with the brushing operation, so as to not leave wood chips on the travelled portion of the road, driveways or the shoulder of the road.

Managing roadside brush in this manner can be very effective, albeit temporary, as vegetation will grow back and may require annual roadside mowing or brushing again in a few years. When scheduling resources, supervisors must consider areas with vegetation overgrowth and roadside safety concerns, yet monitor previously brushed areas, so that regrowth can be managed as well.

The brushing operation does not require a large crew (one equipment operator, two staff to perform spotter and clean-up duties, as well as traffic control personnel) however, as with most road maintenance activities the challenge can often be balancing staffing resources around other routine and seasonal road maintenance needs. Public Works will monitor the year to year brushing requirements and make adjustments to the routine brushing program as needed.

As Public Works expands and monitors the roadside brushing program, future budget requests and allocations may be required.

Existing Policy/By-Law:

Not applicable

Notice Provisions:

Not applicable

Accessibility Considerations:

Not applicable

Financial Considerations:

Future financial considerations.

February 29, 2016

Page 5 of 5

Contacts:

Damon Wells, Director, Public Works Department, 613-546-4291, Ext. 2313

Bill Linnen, Operations Manager, Public Works Manager, 613-546-4291, Ext. 1856

Other City of Kingston Staff Consulted:

Exhibits Attached:

Exhibit A – Roadside Brushing Procedure.

Exhibit B - Public Notice Pamphlet.

	CORPORATE STANDARD OPERATING PROCEDURE		
	Number:		Revision: 1
	Effective Date:	December 1, 2015	Pages: Page 1 of 4
	Section:	PUBLIC WORKS	Title: ROADSIDE BRUSHING

Purpose

This document outlines the procedures to follow when identifying, planning and performing roadside brushing.

Scope

This document will be used by all City employees who are involved in the inspection and concern response to identify roadside brushing requirements; the planning of roadside brushing operations and the performance of roadside brushing.

Department Owner

Public Works

Procedure

Hazard Identification

1. Traffic
2. Roadside obstacles
3. Overhead lines
4. Heavy Equipment
5. Projectile brush chips

Vehicle and Mechanical Equipment

Roadside brushing requires the use of specialized equipment to perform the work.

1. Pick-up trucks and other passenger style vehicles are used for inspection purposes, as well as for passenger, signage and equipment transportation.

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	Effective Date:	December 1, 2015	Pages: Page 2 of 4
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2. The brushing unit used is a hydraulic brusher head (attachment), mounted on a mobile excavator. Brusher head and blades are to be checked prior to each use. Ensure that the safety shield (cage) is installed on the excavator cab.
3. Other small power tools such as, chainsaws, weed trimmers (with broom) or leaf blowers may be required for minor cleanup.

Procedure

1. When inspecting and identifying locations for roadside brushing, certain criteria must be considered before initiating any work.
 - a. Locations where sightline issues are developing or where unsafe conditions could exist should be given priority when scheduling brushing.
 - b. The location selected must be conducive to brushing, with limited obstructions or hard to reach trees and allow for the safe setup and operation of the excavator/brusher. Locations on curves, hills and intersections may require additional traffic control or alternate approaches to the work.
 - c. Areas are selected to avoid residential properties where the results of brushing could leave a less aesthetically pleasing result.
 - d. Consideration should be given to scheduling roadside brushing in the early spring or fall, however the work can be scheduled at any time should safety concerns be identified.
2. Prior to the commencement of roadside brushing operations notification shall be given to adjacent and/or local property owners, as may be required. This courtesy notification is to be considered when roadside brushing is planned near residential or other sensitive areas. In remote rural areas where the roadside brushing is not likely to impact an adjacent property the notification process may not be required.
3. Once the roadside brushing commences the operator and work crew must follow these general practices to ensure a consistent and desired result.
 - a. Traffic control measures must be appropriate for the type and location of the work being performed.

	CORPORATE STANDARD OPERATING PROCEDURE		
	Number:		Revision: 1
	Effective Date:	December 1, 2015	Pages: Page 3 of 4
	Section:	PUBLIC WORKS	Title: ROADSIDE BRUSHING

- b. The operator must survey each work area, no matter how small or how large to identify potential hazards such as, overhead lines, obstructions in the brusher path (ie: fences, rocks or utility pedestals). Ground obstructions may have to be painted to visually assist the operator.
 - c. The brusher is not to be used to trim branches only.
 - d. It is important that the operator carefully selects the brush to be cut to ensure that only trees/brush that can be mulched to the ground are brushed. Do not brush branches on trees behind or on fence lines. This ensures a clean and consistent finished product.
 - e. Do not attempt to brush trees too large in diameter.
 - f. When brushing near residences the operator should stop brushing at a point approximately 30m from the area where the residential property is maintained (where grass is cut or landscaped), unless otherwise directed by a supervisor. If the brush within the road allowance (adjacent to these properties) is a safety hazard, a supervisor will provide direction on where to start and terminate the operation.
 - g. The wood chip debris created from the brushing operation can travel significant distances, so care must be taken to clean debris from roadways, shoulders, driveways and any other location that might be unsightly or create maintenance concerns. This can be done with rakes, weed trimmers with brooms or leaf blowers.
 - h. Do not operate the brusher close to gravel surfaces.
 - i. Trees, brush and limbs that cannot be adequately removed with the brusher can be either trimmed with chainsaws immediately after the brusher has completed work or at a future date, as determined by the Supervisor.
 - j. When not in operation, the excavator is to be parked in a safe and secure location. Only park on private property when permission from the property owner had been provided.
4. The safety of workers and the public must be considered before and during roadside brushing operations.
- a. Other workers must remain a safe distance from the brusher while in operation.



CORPORATE STANDARD OPERATING PROCEDURE

Number:		Revision:	1
Effective Date:	December 1, 2015	Pages:	Page 4 of 4
Section:	PUBLIC WORKS	Title:	ROADSIDE BRUSHING

- b. Never approach the excavator/brusher while in operation and always make eye contact before approaching the excavator when not in operation. It is important to ensure that members of the public do not approach the excavator.
- c. While inspecting or surveying the work area or cleaning up after the brushing operation workers are to be mindful of trip hazards such as rocks and other debris, hazardous plants and bee hives.
- d. Report hazards or safety concerns to an Assistant Supervisor and/or a Supervisor immediately.
- e. Training will be provided to the operator and crew on the safety, planning, set-up and operational aspects of this procedure.

Reference

CSOP – Mobile Excavator

CSOP – Roadside Vegetation Control

CSOP – Traffic Control

Revision Schedule:

This procedure shall be reviewed every 3 year(s) or earlier if required. Records of revision will be kept in the table below.

Date (MM,DD,YY)	Revision details	Section Heading

Approved By:

Public Works

Human Resources – Health and Safety

Where will work be happening?

The removal of roadside brush will be taking place on Bur Brook Road between Cordukes Road and Sydenham Road.

Work will begin in February 2016 and continue throughout the winter and spring months.

Dependent on weather conditions, work will take place intermittently.

More information

The City of Kingston appreciates your patience while this work takes place.

For more information relating to the removal of roadside brush in your area, please contact:

Derek Ochej
Public education & promotion
coordinator
613-546-4291 ext 2703
dochej@cityofkingston.ca



City of Kingston public works department

Roadside brush removal

This pamphlet contains important information about the upcoming removal of roadside brush in your area.



613-546-4291 x 2703
www.CityofKingston.ca

Roadside brush removal

What will be happening?

Starting shortly, public works staff will be in your area performing the removal of roadside brush on City of Kingston roadside allowances.

The work is performed with a mechanical brusher attached to an excavator (see picture below). The brusher mulches shrubs, bushes, and small trees within the road allowance.

Roadside brush removal is part of the public works department's normal winter operations.



Safety

Roadside brush removal provides many safety benefits as it:

- Reduces hazards to vehicles if they leave the road
- Reduces danger from falling trees
- Prevents the obscuring of road signs, like stop signs
- Increases sight distances at curves and intersections
- Removes overhanging trees/branches that can damage vehicles

A close-up of the brushing attachment is pictured below



Road maintenance

Road brush removal also provides benefits to road infrastructure as it:

- Reduces shading on roads
- Increases snow storage.
- Improves access for infrastructure inspections
- Improves access for other road maintenance activities (e.g. mowing, drainage, and guiderail repairs)

It is normal after brush removal is completed to see small wood chips and branches left to decompose in the road allowance. Staff attempts to minimize the wood debris that may land on private property.