



A Natural Attraction

**STAFF REPORT
19-029 PWES**

Date: May 13, 2019

To: Chair Allan DeWitt and Members of the Public Works and Environmental Services Committee

From: Chris Angelo, Director of Public Works & Environmental Services

Subject: Tree and Brush Cutting Policy/Procedure

Recommendation:

That the Director of Public Works & Environmental Services Staff Report 19-029PWES regarding rural brush cutting be received as information; and

That Committee recommends to Council that staff be directed to bring back to the next Committee meeting a Tree and Brush Cutting Policy/Procedure.

Background:

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.

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. Staff are aware of the need to balance its responsibility to provide safe roads and clear site lines while also maintaining control of the natural vegetation within the road allowances, and still to the greatest extent possible attempting to keep the

natural beauty of our area within current budget limits. This is a delicate balance at times.

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 and farm machinery travelling on the road. Beyond public safety, roadside brushing provides value to road maintenance activities by:

- Reducing shading on the road,
- Removing obstructions that may cause damage to larger vehicles such as school buses, farm equipment and commercial vehicles,
- Opening up the overhead tree canopy for the natural sunlight to reach the road surface to promote improved melting of snow and ice pack conditions and in turn reduce the frequency and quantity of sand and salt used,
- Increasing snow storage along the side of the road, and
- Providing improved access for other maintenance activities.

Due to the hazards inherent with large equipment and the nature of the brushing operation, safety must always be paramount. The draft procedure below is a Policy for Public Works staff to utilize when inspecting and identifying roads or sections of roads that require roadside brushing. Areas with developing sightline issues as well as areas scheduled for surface treatment 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 and the limit of work. When working near residences the brusher operator will 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. In any event the mechanical brushing method will not be used in built up areas as defined in this procedure.

The brusher can splinter branches and trees, so to maintain a cleaner result the City works crew will follow the brusher utilizing 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 will 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 requires one equipment operator, two staff to perform spotter and clean-up/trimming duties, as well as 2 traffic control personnel, however as with most road maintenance activities, the challenge can often be balancing staffing resources around other just as important 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.

Staff also recognize that it is important to communicate its intentions to the property owners abutting road allowances that are scheduled for brushing. Brushing is generally performed in the spring and fall of each year in order that normal snow clearing and summer construction projects are not negatively impacted and generally before vegetation has developed. However, if staff resources allow, brushing may be carried out in the winter and/ or summer seasons.

In view of the foregoing, and the number of brushing concerns raised over the past few years, staff would recommend the following tree, brushing and notification procedure

TREE REMOVAL AND BRUSHING PROCEDURE

1. Municipal open road allowances shall be cleared of scrub brush up to a diameter of approximately 4 inches (10 centimetres) with a mechanical brush-cutter accompanied by a City works crew (2 flag-persons plus 2 workers) that follows immediately a safe distance behind with chainsaw and/or pruning saw. In addition:
 - a. When inspecting and identifying locations for roadside brushing, certain criteria will be considered before initiating any work.
 - i. Locations where sightline issues are developing or where unsafe conditions could exist will be given priority when scheduling brushing.
 - ii. The location(s) 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.
 - iii. Areas are selected to avoid built up and directly in front of residential properties where the results of brushing could leave a less aesthetically pleasing result.

- iv. Consideration will 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.
- v. 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.
- vi. The brusher is not to be used to trim branches only.
- vii. 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.
- viii. When brushing near residences the operator will stop brushing at a point approximately 10m from the area where the residential property is maintained (where the 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.
- ix. 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 performed with rakes, weed trimmers with brooms or leaf blowers.
- x. Do not operate the excavator/brusher close to gravel surfaces.
- xi. Trees, brush and limbs that cannot be adequately removed with the brusher will be either trimmed with chainsaws immediately after the brusher has completed work or at a future date, as determined by the Supervisor.
- xii. When not in operation, the excavator/brusher is to be parked in a safe and secure location. Only park on private property when permission from the property owner had been provided.
- xiii. The safety of workers and the public will be considered paramount before and during roadside brushing operations.
- xiv. Other workers must remain a safe distance from the excavator/brusher while in operation.
- xv. 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 brusher.

- xvi. 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, etc.
 - xvii. Report hazards or safety concerns to a Supervisor immediately.
 - xviii. Training will be provided to the operator and crew on the safety, planning, set-up and operational aspects of this procedure.
- b. The mechanical brush cutter shall not be used in a built up area defined as more than 5 residential homes in an area less than 500 meters.
 - c. The mechanical brush cutter shall not be used to cut brush at heights greater than 10 feet.
2. Brush and trees larger than approximately (4) four inches (10 centimetres) in diameter will be removed by City works crews with chain saws and wood-chipper or other contracted pruning methods and not by the mechanical brusher
 3. Dangerous overhead trees limbs and tree canopy encroaching the travelled road surface or shoulder areas shall be removed by City works crews with chain saws and wood-chipper or other contracted pruning methods.
 4. Debris created by the mechanical brush-cutter clearing method will be cleaned up from:
 - a. The travelled road surface and edge shoulders on the day of the brush clearing.
 - b. The road allowance ditch areas as soon as practical after the day of clearing as time / weather permits so that any large accumulation of debris will not impede the drainage flow in the ditch system.
 5. Larger tree removals - may be removed by the City works crew or a qualified contractor (individual or company) with the knowledge, skills and ability to remove the trees with as little damage to the road allowance as possible.
 6. The Manager of Outdoor Operations shall prepare the following:
 - Brushing and tree removal program schedule with a map of areas of the City road allowances to be addressed in that year.
 - Prepare a schedule of work to ensure that all of the open and maintained road allowances are brushed on a rotational basis so that they are maintained to a safe standard in accordance with this procedure.
 - Communicate with the City's Communications' Office the approved brushing and tree removal program schedule combined with a map such that it can be posted on the municipal website.

Existing Policy/By-law:

N/A

Financial Impact:

N/A

Public Input:

N/A

Internal / External Consultation:

Manager of Outdoor Operations

Road Supervisors

Comments/Analysis:

N/A