



**CORPORATE POLICY AND PROCEDURES
MANUAL
Levels of Service**

Policy No:

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Policy Name:

**RURAL ROADSIDE VEGETATION - LEVEL OF SERVICE POLICY
Summer Maintenance – Rural Roadside Vegetation Control Maintenance**

DEVELOPED BY:	Warren Nicholishen CRS CST Transportation Operations Manager	DATE:	May 31 2017
Revised By:			
DEPARTMENT:	Works and Engineering		
REVIEWED BY:	Works and Engineering Committee	DATE:	June 20 2017
APPROVED BY:	Council	DATE:	Sept. XX 2017
RESOLUTION NUMBER:		EFFECTIVE:	Sept. XX 2017
CROSS-REFERENCE:		Effective:	REVISIONS:

POLICY STATEMENT AND RATIONALE:

It is the objective of the Municipality of Port Hope, Transportation Operations Division to apply its operational activities in an efficient and effective way, so as to provide safe road conditions consistent with a small urban and rural municipality setting. This Policy outlines a Best Practice approach, balancing the needs of the environment, agricultural community and the public while providing a safe, passable and properly functioning road allowance mitigating risk for all road users.

SCOPE:

This policy shall apply to all identified road allowances assumed and those maintained by the Municipality of Port Hope. Notwithstanding the foregoing, neither the Corporation of the Municipality of Port Hope nor its officials or employees make any promise, assurance or guarantee that the services provided by the Transportation Operations Division will be in excess of the minimum as detailed herein.

Road user's safety is the main concern of the Municipality of Port Hope. Roadway safety cannot be achieved without a pro-active road allowance maintenance program. Municipal staff will be responsible for reviewing / inspecting their roads and right of way identifying hazards and making conditions safer for all users. All vegetation has the potential to present a hazard. Trees close to the road can present a

fixed object hazard. Tall weeds, brush, grasses and tree limbs can obscure or limit a driver's view of traffic control devices, approaching vehicles, wildlife and livestock, pedestrians and bicycles, namely site line obstructions. Controlling vegetation reduces personal injuries and collisions and mitigates municipal risk. Most importantly proper maintenance activities will allow the roads infrastructure to perform in a manner that keeps the road allowance in a state of repair.

The purpose of the Vegetation Level of Service Policy is to provide a bench mark of guidelines outlining to municipal staff how and when to maintain identified areas and what maintenance practices are to be performed where vegetation control is needed to improve and enhance road user safety and protect the infrastructure asset.

VEGETATION CONTROL GOALS:

- Keeping traffic signs visible
- Keeping road users (other than vehicles) visible at all times
- Keeping site lines un-obstructed at both intersections and driveways
- Improve drainage systems with the roads cross grades and ditching maintenance
- Improve winter road maintenance with snow storage areas and drainage of melt waters
- Preserving and protecting road surfaces through day lighting from root infiltration control
- Control of Noxious and invasive weeds in accordance with Provincial and local laws / ordinances
- Control of overhanging limbs, allowing sunlight to penetrate and heavy agricultural equipment to operate un-encumbered

DEFINITIONS:

Ambient Conditions...conditions that are commonly found in a stabilized environment. Normally in ambient conditions there are no negative effects actively reducing the existing conditions. i.e. Storm events are not in evidence. (See storm...conditions.)

Aspects...in the context of these standards refers to specific elements of roadway service, which are defined by these standards.

“As Soon As Practicable”...shall mean without undue delay.

CBD... means the central business district of an urban area. It is the location where the majority of the commercial activity of the urban area is undertaken

Conditions...define the state in which the subject matter is found. The policy indicates the condition being measured.

Cycle...is that time interval between actions conducted for a specific purpose. Consideration can still be made for adjusting cycle times, at the discretion of the foreman for mitigating circumstances, which are of an uncommon, or unpredictable, nature.

Designated Natural Area...an area that has been identified to receive little to no vegetation control means over a period of time (without compromise to the road user's safety or the road structures integrity). Usually an area dedicated to preserve unique vegetation. To be left untouched until some management is required due to growth beyond its original state and any growth that may cause an un-safe road allowance.

Designated Natural Area Limit...is the area in the vegetation free zone, i.e. 1 meter within the travelled portion of the road surface there shall be no growth.

Effect...is the acting of an external influence on the condition of any aspect of the roadway.

Foreperson...refers to the person in the Works and Engineering Department who is accountable for the deployment of operations that impact on the condition of roadway services.

Improved...condition refers to the condition being better than it was before, from the perspective of a typical user, all other effects being equal.

Inspection...is the activity performed by a qualified person, authorized and directed by the Director of Works and Engineering or designates to investigate and report on the relevant conditions of the roadways.

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Integrated Roadside Vegetation Control...an approach that combines a variety of vegetation management techniques and practices maintaining road allowances to a state of repair. IRVM utilizes appropriate treatments for any specific area.

Localized...conditions for the purpose of these Levels of Service which occur on short lengths of roads, specifically on bridges, intersections, curves and hills.

Manager...refers to a person in the Works and Engineering Department who is accountable for the deployment methodology of operations that impact on the condition of roadway maintenance services.

Notice...of an effect or condition is considered given when received by an appropriate employee of the road authority.

Policies...decisions of a formal nature made by the road authority to enable, qualify and govern the mission of the road authority as directed by-law.

Operations...means those activities the Works and Engineering Department performs to improve a condition or sustain the roadway standard. Operations are normally defined by guidelines (not policy), with discretion of the Manager or Foreperson to choose various methods to achieve results cost-effectively.

Representative...describes a method of patrolling infrastructure condition (i.e. Roads) based on inspection of a sample and not the whole taken by the roadway authority during the summer and winter seasons. Of which monitoring a compromised effect or condition may constitute a response.

Response...describes that action taken by the roadway authority when informed of an effect or condition. Monitoring an effect or condition may constitute a response. A reasonable response takes into account the relevant standards.

Right Of Way...(R.O.W.) describes the corridor of land reserved for roadway improvements and under the jurisdiction of the roadway authority. In the context of these standards, only right of ways assumed as public roadways are considered.

Road User...refers to any person travelling on or over the roadway and allowance.

Roadway...refers to all features that make up the roadside within the jurisdiction of the roadway authority, except for the road surface itself.

Roadway Authority...indicates the public agency accountable for the status and condition of the roadway. This refers to the Municipality of Port Hope and its designated officials or agents.

Section...refers to a portion of a road allowance. A section is commonly used for construction costing, inventory control in Maintenance Management Systems, Road Needs Studies, Pavement Management Studies, and Priority Planning and Budgeting.

Service...can be defined in two contexts. In the larger context any municipal activity is a service. A roadway network is a service, as is a library, potable water supply, etc. When used in the context of these standards, "service" refers more specifically to aspects of the roadways and their condition. Services are seen from the perspective of the user.

Service Levels...a range of values that quantify a particular service standard, by one or more parameters. Service levels typically reflect a maximum or minimum condition.

Storm...conditions or effects are when natural or external effects are acting upon the roadways surface condition. It does not refer to weather conditions that do not impact on the infrastructure. Storm conditions could include wind, rising and moving water, precipitation, cold temperatures, snowfall, freezing rain, hail, blowing snow, etc.

Substandard...refers to a condition that is outside the defined standard. Normally a substandard condition requires a response, unless otherwise considered in the standard.

Summer...that season when warm and precipitation type of weather effects on roadway conditions can be reasonably expected and as specified herein. For the purposes of this policy summer is defined as that period from May 1st to November 1st.

POLICY, PROCEDURE AND IMPLEMENTATION:

ROADSIDE VEGETATION CONTROL RESPONSE:

Roadside vegetation management activities include mowing, brushing, spraying and remedial landscape maintenance which is all undertaken to maintain clear sight lines for all road users, control noxious and invasive weeds, facilitate effective drainage and reduce the potential of possible fire hazards and the spreading of fires.

This Level of Service policy covers those activities which are required to produce safe environment for all road users regardless of methodology. Items that are taken into account for the delivery of this LOS consisted of Sign Visibility, Clear Sight Lines, Well Defined Shoulders and conditions of, Intersection Visibility, Snow Storage, Drainage and vegetation that Encroaches (from the side of the road or overhang) the travelled portion of the road.

This policy does not hinder existing Municipal Property Standards from its intention guiding property owners from their responsibility to clear and maintain abutting front yards that are located within the road allowance.

ENVIRONMENTAL CONSIDERATIONS:

The Policy and Level of Service for vegetation control management address the Designated Natural Areas of municipally identified as sensitive zones within the road allowances that will not receive annual maintenance activities to control growth. However, all vegetation will continue to grow and expand if not eventually controlled in some method. The municipality recognizes the sensitive nature of these areas and will impose control methods only when the municipality deems the road allowance to be un-safe for users and/or the infrastructure is compromised.

Vegetation control activities will commence during the summer seasons when the road base is stable and safe for the equipment to be used upon. The maintenance season will normally be from April 15 to October 15 of each year.

Should an area require immediate remediation outside of the normal maintenance time frame, an assessment for the road users and municipal staffs' safety will dictate the level of response.

Primary environmental issues relating to routine roadside vegetation management activities are summarized in Table 1. It should be acknowledged that site specific conditions may present additional issues that will need to be addressed in forward planning and the undertaking of the required work with different methodologies.

Moving forward, it will be Operations intention to develop a framework on which a member of staff will fulfill a need to address the municipality's environmental stewardship. The identified staff will possess required skill sets and competencies to address now and future needs of the municipality. Every effort will be made to reflect municipal Policies, Standard Operating Procedures and Levels of Service while remaining compliant with the pertinent provincial legislation and Ontario Regulations. Should further consultation be required, the Ganaraska Regional Conservation Authority may be used as a technical reference.

Note: General Best Practices provided apply for most work activities within this category; if BP's specific to the activity are available they are noted below. The following BP's are provided as guidelines in a Levels of Service to assist and ensure routine vegetation control maintenance are completed in compliance with all municipal ordinances and provincial legislation.

SITE MANAGEMENT:

Canopy and Lateral protruding vegetation control will be addressed in two logistics.

- I. If the tree canopy encroaches lower than the acceptance height of 4.2 meter ceiling and the municipality is made aware of by other sources that there is a concern for safety, municipal staff will investigate and take remedial actions as required.
- II. If the tree's lateral growth protrudes and extends over the travelled portion, and alters the road users safety and diverts from a normal path of travel, municipal staff (after becoming aware) will investigate and take remedial actions as required, i.e. clearing back the growth enough to mitigate un-safe road user movement.

When cutting near watercourses, debris will be removed away from embankments to prevent its movement further into bodies of water.

If vegetation management activities create areas of exposed soils and there is the potential for sediment to be transported to a watercourse, install appropriate erosion and sediment controls. Areas of exposed soils should be stabilized through reseeded or some other manner.

As the heavier the brush cut by the flail unit, the more debris will be expected left on site. Resources may be dispatched to remediate and clean the areas due to the amount of debris left by the activity.

ON SITE PRACTICES OF VEGETATION CONTROL:

Under normal topographical conditions, the standard care for cutting will be to brush to the rear slope of the drainage structure (namely the ditch). Should circumstances not provide that level of clearance; the normal practice will be to achieve a swath cut or a width that would be considered appropriate to the location while maintaining road safety year round.

In reference to Noxious and Invasive weed control, please refer to Table 1. Control of Noxious weeds will follow a strict guideline and generally be sprayed once per year unless otherwise directed by the Municipal Weed Inspector(s). Invasive weed control will be prioritized and controlled on an as needed basis most often by cutting as a first option.

In respect to the local agricultural community (inclusive of the local economy) specific areas will be identified where locations present challenges to their business operations, (i.e. low overhanging limbs, site line obstructions, turning radiuses and un-stable road surfaces).

ROAD ALLOWANCE MAINTENANCE PROGRAM:

Although it shall be recognized that the municipality has latitude in its program to maintain the travelled portion of the road and roadside, there are legal obligations and criteria to meet.

References are drawn from the Municipal Act, Highway Traffic Act, Drainage Act and the supporting Ontario Regulations 239/02 and 47/13. Clearly identified on the lower Class roads (i.e. lowest volume roads) the travelled portion platform of 5.0 meters (lane width) shall be kept in a state of repair.

By definition, any surface or underground discontinuity that negatively impacts and changes the normal expectation / habit of the road user is to be corrected without prejudice.

LOCATION IDENTIFICATION – DESIGNATED NATURAL AREA:

- a) Lakeshore Road – South side Concession 1, Part Lot 20 (from hydro pole #AEZYHH, 85 meters east Concession 1, Part Lot 19 to hydro pole #AEZYGC
- b) Lakeshore Road, West of Wesleyville Road, north and south side in Concession 1, Part Lot 30 between hydro pole #AF26DP westerly approximately 337 meters to property municipally known as 2082 Lakeshore Road.
- c) Lakeshore Road, west of Wesleyville Road – north and south side in Concession 1, Part Lot 31 commencing 39 meters westerly of property municipally known as 2082 Lakeshore Road to hydro pole #AF25HF.
- d) Walker Road, from Oak Hill Road to the 10th Line.

Table 1 – Roadside Vegetation Management – Normal Conditions

Vegetation Control Best Practices			Cycle Time
Maintenance Methodology	Work Activity	Potential Environmental Impacts	Performance Standards
BRUSHING	<p>Overgrowth of Overhanging and lateral growth of limbs, branches & brush</p> <p>Clearing far reaching vegetation for Sightline Obstructions</p> <p>Clearing to maintain Drainage Structures & back to rear slope of Ditch structure</p>	<ul style="list-style-type: none"> - May disturb nesting birds - May expose erodible soils - May promote sediment discharge and/or cause watercourse erosion if riparian buffer zones are cleared 	<p>Once per Season</p> <p>Trees and Bushes, (less than 20cm Dia.) & Tall Grasses</p> <p>Cut to rear slope of drainage structure or if none, a cut width to ensure road users safety and road integrity are maintained</p>
ROADSIDE HAND - MOWING & MANUAL TRIMMING	<p>Clearing far reaching vegetation for Sightline Obstructions</p> <p>Clearing to maintain road cross fall drainage</p> <p>Clearing to provide clear sign visibility</p>	<ul style="list-style-type: none"> - May expose erodible soils - May contribute to the spreading of Invasive plants 	<p>Twice per Season and / or as Site Line obstructions become apparent.</p> <p>Cut to rear slope of drainage structure or if none, a cut width to ensure road users safety and road integrity are maintained</p>
NOXIOUS & INVASIVE WEED CONTROL	<p>Noxious Weeds treat as required and Identified Only as needed following the appropriate guidelines.</p> <p>Invasive Weeds to be Cut Only, <i>Limited</i> application of herbicides will be used If deemed appropriate</p>	<ul style="list-style-type: none"> - Improper handling and storage may lead to the spread of seeds and displace native vegetation - Noxious weeds may adversely affect animal and public health 	<p>Treatments to occur once per season and/or as new locations become identified,</p> <p>Application of Herbicides when required to be advertised with permissions provided through the Provincial Weed Inspectors office.</p>
DESIGNATE NATURAL AREAS (DNA)	<p>Clearing far reaching vegetation for Sightline Obstructions</p> <p>Clearing to maintain road cross fall drainage</p> <p>Clearing to provide clear sign and site line visibility</p>	<ul style="list-style-type: none"> - May disturb nesting birds and other wildlife - May expose erodible soils - May disturb the value for which the area was designated 	<p>DNA=As vegetation impacts roadside beyond the DNA limits, control from the edge of road may be cut back to its base – based on a year to year assessment.</p>

Illustration 1 – Road Allowance - Zones of Vegetation Management

Zone Identification

1. Vegetation Free Zone 1: “Gravel Shoulders” - Maintained in most locations using mechanical and chemical methods to improve drainage and preserve road surface conditions. Vegetation control to extend to rear of drainage structure, cutting will be administered semi-annually.

2. Operational Zone 2: Low Vegetation – Maintained with mowing and IRVM treatments for sight line obstructions and distance, safe errant vehicle recovery and noxious and invasive weed control. Minimum of vegetation control to extend to rear slope of drainage structure, cutting will be administered semi-annually.

Note: Zones 1 and 2 will incur the same LOS under normal conditions.

3. Buffer Zone 3: Native / Natural Vegetation – Where adequate right of way exists, maintained using IRVM to encourage desirable vegetation in self-sustaining plant locations. Not to be maintained unless extenuating circumstances exist and dictate management practices.

4. Designated Natural Areas – an identified area that may be near the travelled portion of the road in Zone 1 to through to the back edge of the road allowance in Zone 3. Vegetation control maintenance will only occur when growth begins to negatively impact the road structure and its safety for its users, cutting from edge of road extending outwards to the rear or back of slope of ditch structure. Maintenance cycle times may vary depending on growth of vegetation approximately every three to five years or as the location dictates, and / or as required.

