# THE CORPORATION OF THE MUNICIPALITY OF KINCARDINE POLICY

**POLICY NO**: PR 3.1

**SECTION**: COMMUNITY SERVICES & INFRASTRUCTURE OPERATIONS

TITLE/SUBJECT: MUNICIPAL TREE POLICY (APPLICATIONS FOR MUNICIPAL

TREE REMOVAL PRUNING AND REPLACMENT

**GUIDELINES**)

ADOPTED DATE: July 12, 2021

**REVISION DATE:** 

# Purpose:

The Municipality is creating this policy to help staff manage the planting, pruning and removal of trees located on Municipal property, and it does not extend to private property.

## Policy:

The Tree Policy is to effectively preserve, enhance, conserve, and manage the urban and rural tree canopy, thus providing a better quality of life for municipal residents. Planning, management, and continued inspection of the tree canopy is essential to ensure a healthy, aesthetic, safe and green environment.

This policy is to help staff manage the planting, pruning and removal of trees located on Municipally owned property.

The Municipality supports proper stewardship techniques and believes they are essential to protect and enhance the life expectancy of municipal trees.

## Application of Policy:

This policy applies to all trees located on Municipal property within The Municipality of Kincardine. Trees located on Municipal property will be protected from unlawful tree destruction and regulated by Municipal by-law. Persons found destroying Municipal trees may be subject to fines and will be required to replace and return municipal property back to its original state.

# **Definitions:**

Arborist – a specialist in the cultivation and care of trees and shrubs.

Ball and Burlap – is the root section of a tree that has the soil still intact and is wrapped with the burlap and put in the wire basket.

Caliper – caliper of a tree is measured by the thickness of the trunk, so a 5 cm (2") caliper tree means that the trunk is 5 cm across.

Competent Person – has knowledge of any potential or actual danger to Health and Safety in the workplace. Is qualified because of knowledge, training and experience to organize work and its performance. Familiar with the Act and Regulations that apply to work.

Dangerous – full of danger or risk; causing danger; perilous; risky; hazardous; unsafe.

DBH – diameter at breast height.

Dead – means a tree that has no living tissue.

Drip Line – the dripline is the area directly located under the outer circumference of the tree branches. This is where the fibrous / feeder roots are located that take up water and nutrients for the tree.

Diseased – having or affected by a disease.

Hazardous – full of risk; perilous; risky.

Horticulturist – oversees municipal plants such as: hanging baskets, annual beds, perennial beds, shrub beds and trees. Order, tender plants, design beds as well as create any plant related policy. Practice of plant cultivation and management.

Infrastructure Operations – oversees Municipal infrastructure such as: streets, roadways, boulevards, parking lots, bridges, drainage, guardrails and other.

Injure or destroy a tree – injury or destruction of a tree by removal, cutting or girdling of the tree or its roots, interfering with the water supply, application of chemicals, compaction and regrading with in the drip line of the tree, or by other means including irreversible injury which may result from neglect, accident or design but does not include pruning.

Limb – a large branch.

Monoculture – the cultivation or growth of a single crop or plant.

Mulch – a covering spread around plants to prevent erosion, hold moisture, slow weed growth down.

Municipality – means the Corporation of the Municipality of Kincardine.

Parks Department – oversee Municipality open spaces such as parks, beaches, sports fields, tracks and fair grounds. Sets up for seasonal events.

Pedestrian – means any person afoot, wheeled carriages and muscular powered or wheeled chair.

Private Property – means any property not owned by the Municipality.

Public Property – means any property owned by the Municipality.

Prune – the act of removing particular branches to allow for proper growth or as a safety measure to remove branches that may interfere with other structure or overhead wires.

Rootstock – form or source for which offshoots have arisen. Tree roots.

Rural - relating to characteristics of the countryside rather than a town.

Soil Glazing – occurs when sides and bottom of a hole become smooth and hardens forming a barrier.

Termite Management Area – please refer to: https://www.kincardine.ca/en/living-here/resources/Documents/Termite-Management-Area-Maps.pdf or https://www.kincardine.ca/en/living-here/termites.aspx

Tree – a plant having a permanently woody main stem, ordinarily growing to a considerable height, usually developing branches at some distance from the ground.

Tree Canopy – is the aboveground portion of a plant community or crop, formed by the collection of individual plant crowns.

Tree Diameter – the measurements of the diameter of the trunk of a tree outside the bark 1.4 metres (4  $\frac{1}{2}$ ) above the existing grade (DBH). Where there are multiple stems of a tree, measure the total diameter of the tree.

Tree Stump – the lower end of a tree remaining in the ground after most of the stem or trunk has been cut off.

Tree Protection Plan – a plan prepared by person(s) for review of a competent qualified person that is consistent with the Municipality of Kincardine's Municipal Tree Policy and overview which shall be submitted to the Municipality of Kincardine's Municipal Administration Centre.

TPZ – tree protection zone.

Urban – relating to characteristics of a town or city.

W.B. – wire basket holder that roots are secured in after tree spading.

# **Appendices:**

Appendix A- Request for tree or limb removal on municipal property

Appendix B- Request for Tree planting or transplanting on municipal property

Appendix C- Municipal tree inspection form (completed by municipal staff)

Appendix D- Municipal Approved Tree Species Selection List

# **Municipal Role and Overview of Municipal Trees**

Urban and rural trees provide abundant benefits for the community who share their living space with them. These benefits include:

Trees structure the landscape by:

- Enhancing buildings.
- Enriching the architecture of monuments and sculptures.
- · Lending character.

Trees improve the quality of the environment by:

- Cleaning the air by producing oxygen and absorbing carbon dioxide.
- Controlling runoff and erosion.
- Providing habitat for wildlife.
- Providing shade as well as acting as windbreaks.

# Trees improve the community life by:

- Dividing land used for different purposes.
- Providing privacy.
- · Attracting new residents.

## Trees impart economic value by:

- Lending value to properties.
- Providing heating and cooling savings.

## Trees play a role in municipal heritage by:

- Standing as a testimony to the Municipality's cultural and historic heritage and identity.
- Reminding the citizens of chapters in the Municipality's history.

# **Municipal Role**

To identify measures the Municipality can take within its own operations to preserve and enhance the urban and rural tree canopy. Divisions of the management as follows:

**Infrastructure Operations Department** – Responsible for planting, trimming and removal of trees on municipal boulevards, roadways, cemeteries, and trails. Assist other departments. Respond / review public inquiries with respect to non-health related municipal tree issues.

**Community Services Department** – Responsible for planting, pruning, trimming and smaller tree removals in municipal open spaces which consist of parks, sports fields, beach areas, and some trails. Assist Infrastructure Operations with large tree removals in municipal open spaces.

**Horticulturist** – Respond / review public inquiries with respect to health-related concerns regarding municipal trees. Manages the Memorial Tree Program. Assists with planting of new municipal trees. Prunes and trims trees. Sources and purchases trees for the Municipality. Inspects municipal trees.

**Arborist** – Contracted professional, competent, and qualified arborists. Contracted on an as needed basis for tree removals and tree stump removals.

# **Overview of Threats**

Proper stewardship techniques are essential in order to protect and enhance the life expectancy of municipal trees. The following are examples of the types of threats and constraints suffered by the trees within the Municipality of Kincardine.

# **Major Infestation**

A lacking diversity of species can increase the risk of major infestations and epidemics. Emerald Ash Borer, Dutch Elm Disease, Gypsy Moths and the Asian Long-Horned Beetle have been found within regions of Ontario, including within the Municipality of Kincardine.

# Tree Injuries

Trees are frequently injured through negligence during construction, development, maintenance work and or lawn maintenance as well as improper practices.

# **Unjustified Felling**

Trees are often felled for no good specific reason (i.e. aesthetics, tree leaf mess and or general dislike), as such adding the felling of trees in the private domain without regulations and procedures.

# Invasion of public infrastructure

Public infrastructure such as electricity, gas lines, water mains, sewers, telephone lines, cables, street lighting, road signs, etc. are installed without proper allowance or protective zone having been made for trees and their vital needs. Once again, growth and life expectancy are seriously impacted.

## Non-recognition of noteworthy trees

Noteworthy trees are those which are privileged witnesses to our past. In both the public and private domains, some of these exceptional trees are threatened due to the absence of appropriate protective measures.

## Purpose

For urban trees to flourish and live longer, urban trees require care and attention over the longer term. The Municipality of Kincardine is committed to ensuring that its trees and urban tree canopy continue to occupy a place of choice in the landscape. Hence the following three (3) main objectives slated for achievement in the coming years.

- 1. Develop and provide the tools necessary for defining a long-term vision.
- 2. Establish rules and practices relating to the protection, management, and appropriate maintenance of the urban tree canopy, while supporting applied research in the field.
- 3. Increase the number of trees planted based on the principle of planting the right tree in the right location.

# **Tree Inspection**

The purpose of the Tree Inspection is to review reported municipally owned trees and limbs on municipal lands that may be dead, diseased, damaged, or considered unsuitable. These trees may pose danger to both public safety and protection of the environment.

Trees are inspected for but not limited to:

- Public Safety
- Immediate Danger
- Visibility
- General Tree Health
- Ageing Tree Species
- Infestation

Municipal trees that are reported that appear to have health related concerns will be inspected by the Municipal Horticulturist. Inspected at ground level within five (5) days depending on tree condition and damage severity. A "Municipality of Kincardine Tree Inspection Form" must be filled out.

Information gathered may consist of:

- Tree ID.
- Photo(s) of tree.
- · Address and Location.
- Date and Time.
- Tree Size (approximate).
- Tree Health.
- Damage / Weakness.
- Proximity to House / Buildings.
- Proximity to Street / Sidewalks.
- Danger Potential.
- Removal Necessary YES / NO.
- Name(s).
- Comments

If the tree in question is worth saving, it may need to be altered (limb removal), then all steps taken for the trees survival must be taken. If the tree in question is in the condition that is irreversible, then removal may be necessary.

## **Notice**

Prior to removal of limbs and or removal of a tree(s), property owners who are adjacent to the tree maintenance / removal area, staff will make best efforts to notify prior to work commencing. Notice may include the approximate date of the tree removal, location, and municipal contact. Notice for large tree removals may be given prior to work commencing.

The Municipality will make every effort to mark the subject tree(s) with marking paint to identify the tree as being removed in the event the tree is not salvageable. Where the Municipality has approved that a municipal tree to be felled or tree maintenance has occurred, the competent worker, lead hand and or supervisor responsible for the action shall ensure that the ground surrounding the area where the tree/stump existed is returned to a similar state before work commenced.

#### Tree & Limb Removal

Removal of dead, diseased, damaged, or hazardous trees and or tree limbs is done by the Municipality. The removal of the large caliper, dangerous or inaccessible trees and limbs may be hired out to a professional competent qualified tree care company.

- A competent employee or tree care contractor of the Municipality may remove a: dead, decayed, damaged or dangerous tree or limb of a tree immediately and without notice to the owner of the land upon which the tree is located if tree is situated over municipal land or roadways, if in the opinion of the Horticulturist or qualified competent tree care contractor that the tree or branch poses an immediate danger to health and safety.
- All tree / limb cutting operations must be carried out by trained competent employees and or trained qualified reputable tree care contractors.
- All tree / limb cutting operators must be equipped with all necessary personal
  protective equipment (PPE) as to the municipal health and safety requirements
  and must adhere to the Municipal Health and Safety Policy as well as the
  Occupational Health and Safety Act of Ontario.
- Staff / contractor shall monitor tree / limb and will make all reasonable attempts to preserve any natural habitat before removal.

### Other reasons for tree removals:

- Street widening.
- Sidewalk Maintenance.
- Tree Maintenance.
- Public Safety.
- Immediate Danger.
- Visibility.
- Infested, Diseased or of a Noxious / Invasive tree species

# **Management of Cut Wood/ Wood Waste**

- 1. Cut wood waste located in the Municipalities Termite Management Areas shall be removed and properly destroyed by the Infrastructure Operations Department in accordance with the Termite By-law as amended.
- 2. Where wood is felled outside of the Termite Management Area in the Municipality, then the following procedure may occur:

- The property owners who are located immediately in front of the boulevard upon which the removed tree is located shall have first opportunity to take possession of smaller manageable wood from the felled tree at their own risk with prior approval. In the event the tree removal is in an open space, park, beach area or cemetery, then any resident who shows interest and approaches the departmental supervisor for prior approval, then that resident shall remove the wood when safe to do so and at their own risk in a timely manner within twenty-four (24) hours of tree felling.
- If a property owner who is immediately in front of the boulevard is not interested in the felled tree wood and if no known interest has been declared prior to trimming or felling operations, staff shall clean up all material and transport to an Infrastructure Operations designated wood storage area.
- Any surplus wood remaining shall be removed by the Infrastructure Operations department and deposited at the Infrastructure Operations department yard. Once there is substantial amount of surplus wood piled, then the wood will be posted for purchase through a competitive public process. Deposited surplus wood at the Infrastructure Operations yard must be stored in a designated wood storage area that is fenced in and within a locked gated storage yard.

# **Tree Stump Removal**

The Municipality will remove tree stumps at the discretion of the department supervisor, if any portion of the stump is located on land such as: parks, cemeteries, boulevards, open spaces, allowances, and or urban roadways. Tree Stumps along rural roadways will be removed depending on the tree stump location in relation to the roadway, if a tree stump diameter is larger than 15 cm (6") or if the tree stump is considered a fixed hazard. In some situations, a tree stump may be cut flush to the ground if it does not pose any danger to vehicular traffic. Tree stumps shall be marked until removal can occur.

# **Tree Replacement**

When the Municipality removes a tree there will be a minimum of two (2) trees planted for every one (1) tree removed, with the same or similar species being replanted as to the removed tree or a tree to suit the location and the environment. The Municipality will make every effort to replace a removed tree within one (1) year of the stump removal and or tree removal. Tree planting ratios are dependent on availability of funding, tree availability and weather conditions. Residents wishing to plant a tree of any size on Municipal land must have approval of the Municipal Horticulturist prior to planting under the basis of "The right tree for the right location". Trees shall be planted to avoid a "Monoculture".

## **Tree Specifications**

Deciduous trees shall be 45 – 60 mm diameter at 1.4 meters (4'1/2") from grade and Ball and Burlap W.B. of No.1 Nursery stock. Coniferous trees shall have a height of at least 200 cm (6.5 ft.) and of No.1 Nursery stock. With approval No.1 Nursery stock trees

with various contained rootstocks may be approved such as: container grown, bare root or root clump.

# **Tree Planting Location Specifications**

- Trees may be planted a minimum of 1.5 meters (5') from driveway edge.
- Trees may be planted a minimum of 15 meters (50') from a stop sign.
- Trees may be planted a minimum distance of 2.5 meters (8') from a streetlight.
- Trees may be planted a minimum distance of 1.8 meters (6') between curb and sidewalk.
- Urban Subdivision tree may be planted a **minimum** distance of 1.8 meters (6') from the curb depending on area available.
- Suburban Subdivision tree may be planted a minimum of 1.5 meters (5') from the curb.
- Tree planting made in a Sidewalk of any kind must have a **minimum** of 1 meter x 1 meter (3' x 3') tree well.
- No tree planting may be made within 1 meter (3') of a building, fence or utility vault.
- Trees plantings may not occur where vehicular or pedestrian sight lines will be obstructed or would interfere with above / underground utilities.

# **Tree Maintenance**

The Municipality of Kincardine is responsible for maintaining all trees on public property within the Municipality of Kincardine. **Planted Trees** 

- Water newly planted trees regularly during the first year especially during warm / dry months.
- Remove stakes from trees after two (2) years or when time permits. If the tree is in a windy location, postpone stake removal for one (1) more year adjusting the support wire and hose accordingly.
- Topping up / refreshing of the mulch ring as required on yearly basis or as needed basis.
- Use care when using a line trimmer at the base of the tree ensuring the trunk is not struck whatsoever.
- Use care when grass cutting near trees, ensuring trees are not struck.
- Evergreen trees should not be wrapped in burlap for the winter.

# **Tree Pruning On Municipal Property**

All tree pruning on municipal property in the Municipality of Kincardine is done by competent qualified municipal employees or authorized competent preferred contractor(s) only.

Tree pruning requiring the use of a chainsaw is done by competent qualified municipal employee(s) having specific chainsaw qualifications or authorized competent personnel. All trees that project over any public sidewalk, driveway or any public street beyond the curb line are trimmed by the Municipality and or approved competent qualified tree care contractors. All branches that interfere with sight lines at stop signs, road signs or roadways are trimmed.

Trees below / near hydro or phone lines are the responsibility of the utility company. Urban trees are also pruned to remove sucker growth, weak branches, crossing branches, diseased limbs and branches damaged by storms. Twigs and branches up to 1.5 cm (1/2") in diameter are pruned with secateurs on the appropriate angle. Heavier limbs up to 4 cm (1.5") in diameter are pruned with loppers. Limbs slightly larger than 4 cm (1.5") in diameter are removed with a pruning saw or chainsaw on the appropriate angle.

Pruning of large branches is carried out by competent municipal personnel qualified in the use of a chain saw or contracted out to a competent qualified tree care company. \*No more than one third (1/3) of the tree crown is to be removed in one year\*.

# **Protection of Trees & Tree Root Systems**

The protection of trees and tree root system is a crucial aspect to help trees survive in and around construction or disturbances.

Protected trees are trees with a DBH of 30 cm (11 ¾") or a multiple-stemmed tree whose cumulative DBH for three (3) largest stems added together to calculate DBH. Protected trees, but not limited to:

- Has been planted as a replacement tree.
- Was required to be planted for a subdivision, development, building or demolition permit.
- Tree(s) located within an Environmentally Sensitive Area (ESA).
- Noteworthy, historically significant and memorial trees.
- Time protected reasons where there is evidence of habitat life (Example: nesting Aves).



\*Diagram showing how to find diameter at breast height (DBH).

# **Tree Protected Zones (TPZ)**

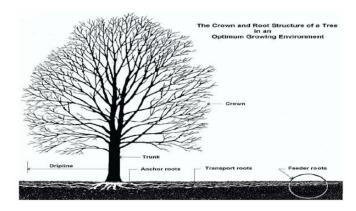
Above and beyond the physical damage that are visual that occurs from the result of construction, excavation and heavy equipment, the Root system is also very sensitive to the above as damage to the root system is permanent and can be fatal.

**Root Cutting**: is a type of physical damage that can significantly impact the health of a tree. The majority of tree roots are found in the upper 30 to 60 centimeters (12 to 24

inches) of soil. Excavation for foundations or utility installation may cut roots if the excavation is done too close to a tree. Trees can become destabilized and may fall over, as well as the tree will become weaker and die back due to fibrous roots (feeder roots) being cut or damaged. Fibrous roots are crucial to a tree as these roots are what absorbs nutrients and water to feed a tree.

Compaction of the Soil in the tree root zone: is one of the leading cause of tree decline within an urban tree canopy. Soil compaction primarily occurs from vehicles and equipment moving across the root zones. Soil compaction causes the pore spaces in the soil, which contains air and water necessary for root growth, to be reduced. Without space available for oxygen and water, tree roots will suffocate, and the tree decline will follow.

**Other:** root destruction can also be caused be changes to the existing grade. Adding soil on top of tree roots can smother them by reducing the amount of oxygen and water they can receive. Only a few centimeters of soil can have a detrimental impact on tree health.



\*Diagram of a tree root system which shows how vital Tree Protected Zones are.

# **Tree Protection Plan**

A tree protection plan may be asked for where proposed construction may be commencing, as such a competent qualified individual may be asked to report. The "Tree Protection Plan" may show details such as, but not limited to the following:

- Shows all existing buildings, structures, hard surfaces and all existing trees within the area of consideration.
- Site plan where proposed work to be undertaken.
- Shows areas on neighboring properties that may cause disturbance to trees due to over digging, compaction of soil and construction staging.
- Indicate location of any excavation that requires root pruning.
- Indicate tree(s) proposed to be removed and or injured and a plan for replanting / replacement moving forward.
- The extent of proposed tree injury, where applicable.

## **Tree Protection Barriers**

Protection measures that may be required consist of, but not limited to:

- Temporary plywood barriers that extend around the tree at a distance from the trunk, which is determined by the tree trunk diameter.
- To accommodate low branches and or where visibility is a consideration, plastic web snow fencing secured with stakes can be used and is determined by the tree trunk diameter.
- Signage attached to the barrier listing what its purpose is along with contractor and or property owner contact information.

Tree Trunk Diameter (DBH)	Barrier Distance Around Tree
20 cm or 8 inches	1.2 m or 4 feet
30 cm or 12 inches	1.8 m or 6 feet
40 cm or 15 ¾ inches	2.4 m or 8 feet
50 cm or 19 inches	3 m or 10 feet
60 cm or 24 inches	3.6 m or 12 feet
75 cm or 29 ½ inches	4.5 m or 15 feet
100 cm or 39 inches	6 m or 20 feet



