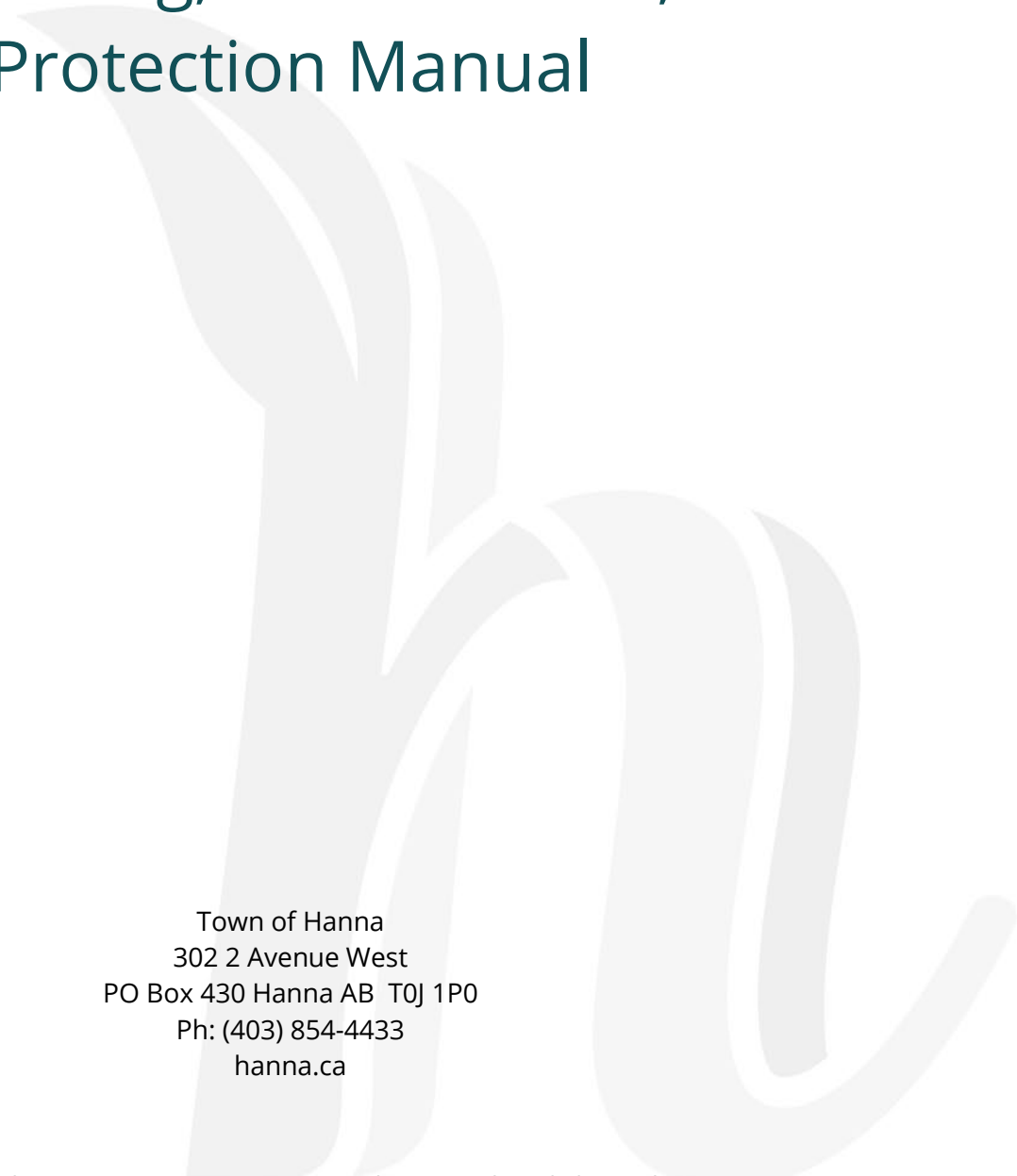


Tree Planting, Maintenance, and Protection Manual

A large, light gray, stylized graphic of a tree trunk and branches is positioned in the background, extending from the bottom right towards the center of the page.

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Purpose

The Town of Hanna believes that the trees within a town are an important part of a community and should be protected. In order to do this, Public Tree Bylaw 996-2018 was created. This manual is intended to support this bylaw and provide information for property owners to ensure the care and maintenance of trees for the enjoyment of present and future generations.

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Introduction

Urban forests (the trees and shrubs located within a town or city) are an integral part of creating healthy communities, both in physical and mental terms. There are many benefits of trees in urban landscapes, including:

- improve air and water quality
- reduce erosion
- beautify the landscape
- provide habitat for many varieties of birds and insects
- damper noise and dust levels
- provide shade
- increase the value of property

In a time when the health of our climate is in danger, planting and maintaining a thriving urban forest is more important than ever.

It should be noted the Public Tree Bylaw states that no person can prune, remove, or plant a tree on public property without authorization. Property owners are responsible for maintaining their boulevards. For property owners wishing to plant a tree on their boulevard, please see Part 6 and 7 of this manual.

Part 1: General Tips

After purchasing a tree, it is important to properly care for the tree in order to give it the best chance of survival and make the investment worthwhile. Some of the most important tips are given below:

- Choose the right tree for your zone, location, soil condition, and personal preference:
 - Consider the tree's mature height or spread; wide canopies may interfere with clearances and safety.
 - Some trees have habits that can be undesirable in certain locations (for example, trees that produce fruit or sticky buds should not be planted close to a sidewalk).
 - Trees with shallow root systems can interfere with infrastructure.
 - The drought and moisture tolerance of the tree should be suitable to Hanna's geographical region and soil type.
- When planting, ensure that the hole is twice the size of the root ball or container. Fill the excess space with high quality dirt and peat moss. Bone meal is a recommended addition to feed the tree during the first year.



- Watering is an integral part of a tree surviving its first year, especially in a dry climate. The general guideline for periods with little to no rain is 5-10 gallons once a week and more frequently during hot, windy weather.
- Mulching is also an important step in the care of a new tree, as it:
 - prevents weeds and grass from growing
 - reduces water loss through evaporation
 - ensures water soaks in
 - protects tree roots during cold winter monthsTrees should be weeded and mulched every spring or fall. Shredded bark, wood chips or leaf mulch are the most common types.
- Young trees should not be pruned excessively, as this can permanently stunt their growth. Any pruning of diseased, damaged, or dead branches should be done anytime from late fall to early spring for most trees and shrubs.

For more comprehensive guides for tree planting, caring for newly planted trees and pruning, please see Appendices D, E & F attached to this manual.

Appendix D – “A Tree Planting Guide” from the International Society of Arboriculture. This guide gives you all the information for how to plant a container tree or a tree wrapped in burlap, as well as some information on watering and mulching the tree.

Appendix E – “A Guide for Caring for Newly Planted Trees” from Credit Valley Conservation. This guide focuses specifically on the first few years of a newly planted tree’s life. It gives detailed instruction and tips for creating the best growing conditions for your tree.

Appendix F – “Pruning Guide” from the California Department of Forestry and Fire Protection, the National Arbor Day Association, and the University of California, Agriculture & Natural Resources. Although published in California, this pruning guide offers pruning information that is relevant here in Hanna. For larger projects please consult a certified arborist. Approval must be obtained before any pruning of a public tree (a tree with at least part of its trunk located on public property) occurs, as stated by the Public Tree Bylaw. A link to Tree Canada’s pruning guide is:

<https://treecanada.ca/resources/canadian-urban-forest-compendium/10-pruning-practices/>

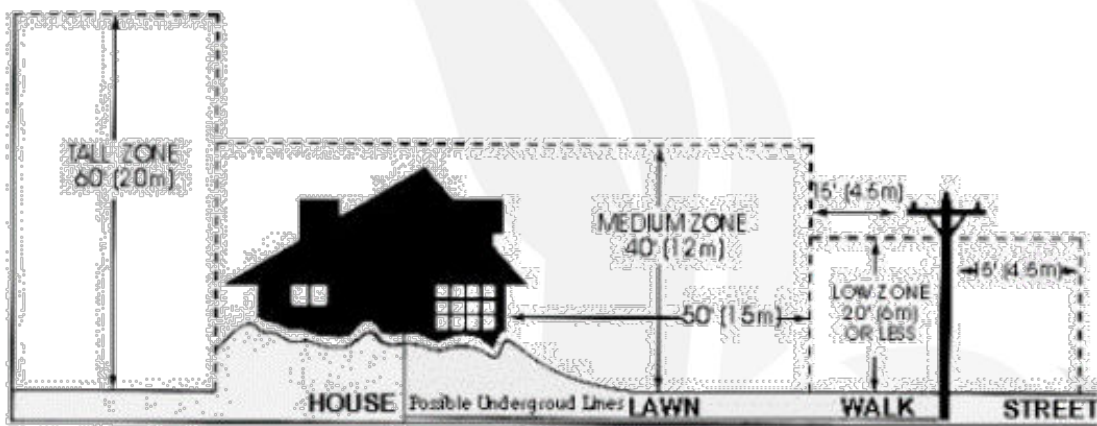


Part 2: Safety Considerations: Be Informed

Many people plant trees without considering the height of the mature tree and, as a result, are forced to remove or top their tree due to conflicts with power lines. Therefore, proper planning is required to ensure that trees won't interfere with power lines, regardless of how tall they get. A link is provided here with the general guidelines for tree planting by power lines:

ATCO Electric: <https://atcoelectric.com>

In this manual's list of the best trees for our area, the description includes whether the tree should be planted in the tall, mid, or low zone, as determined by the following diagram



Alberta One Call is an integral part of any type of excavation process, including tree planting. Many utility lines are located close to the surface and could be damaged while excavating. The link to the Alberta One Call contact information is as follows:

Alberta One Call: <http://albertaonecall.com/submit-a-locate-request/>

Phone Number: 1-800-242-3447

Town of Hanna infrastructure should also be considered when planting trees. Tree roots can cause issues with water and sewer lines as well as sidewalks and driveways. Tree roots can grow around a water line and create issues, infiltrate a sewer line and cause blockages or grow under sidewalks and cause trip hazards. Prior to excavating for a tree, contact the Town of Hanna to have your water and sewer lines located.

Town of Hanna: <https://hanna.ca>

Phone Number: 403-854-4433



Part 3: Local Nurseries and Greenhouses

When buying trees, shrubs or plants gardeners can increase the chance of survival by buying from local greenhouses and nurseries as these plants are already acclimatized to local weather, which is especially important in Hanna's somewhat harsher climate.

Local garden suppliers in Hanna have access to locally/regionally grown trees and perennials. Speak to them to determine where their products are sourced and for assistance in finding the best choice for your location.

Part 4: Trees and Shrubs Suited to Hanna's Climate

When choosing trees, shrubs, and perennials for planting in Hanna, Zone 2 plants and trees are the most successful, while Zone 3 plants may thrive in a more sheltered area

Native Trees:

- Green Ash
- Trembling Aspen: *produces suckers*
- Paper/White Birch
- Narrowleaf Cottonwood
- Alpine Fir
- Balsam Fir
- Rocky Mountain Douglas Fir
- Manitoba Maple
- Alpine Larch
- Tamarack Larch - *mountain tree*
- Jack Pine - *mountain tree*
- Limber Pine - *mountain tree*
- Lodgepole Pine
- Whitebark Pine
- Balsam Poplar - *higher life expectancy than most poplars*
- White Spruce
- Black Spruce: *needs wet area to grow*

- Dwarf Alberta Spruce
- Engelmann Spruce
- Snowy Mountain Ash

Native Shrubs:

- Pin Cherry
- Martin and Northline Saskatoon

Canopy/Shade Ideas:

- Paper Birch
- Ash
- Elm - *Good for street planting*
- Linden - *Good for street planting*
- Bur Oak: large tap root

Accent Trees:

- Lilac
- Amur Maple
- Fruit Trees - *including apple, pear, cherry, chokecherry, plum, pin cherry and flowering crab*
- Mountain Ash
- Aspen



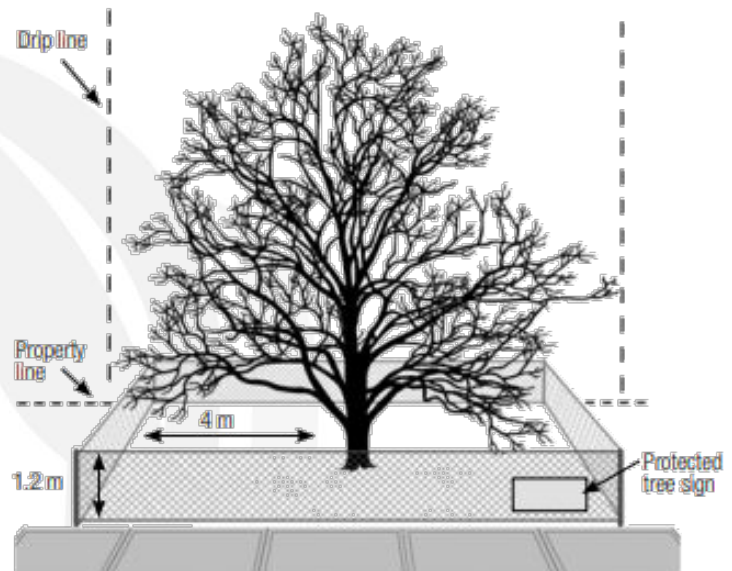
Part 5: Protection Barriers

Tree Protection Plan

The Public Tree Bylaw requires that public trees be protected by a tree protection barrier during construction activities. Generally, the barrier consists of either a solid wooden frame with orange snow fencing or some kind of metal fencing.

No construction activity should go on within the fence line and proper measures should be taken to ensure the tree remains healthy throughout the duration of the construction (such as watering or mulching)

Before work begins on the project, please call the local Bylaw Enforcement Officer or the Parks Department to gain approval. If approval is not obtained, or if the fencing is removed at any point during construction, the party responsible may be found in violation of Bylaw 996-2018





Protecting Newly Planted Trees

After a tree has been planted, placing chicken wire or some other kind of multi-purpose fencing around the tree may be required to protect it from deer, pets, human traffic, and yard equipment. An example of a specifically deer-protective fence is shown to the right.



As well, burlap wrapping can be an easy and inexpensive way to protect young or newly planted trees during the winter. Cedar trees especially benefit from this practice. The most basic method is as follows:

1. Before the ground freezes in the fall, water and mulch the tree (this should be done for young trees regardless).
2. Starting 4-6 inches from the ground, wrap the burlap diagonally up the tree to the top and then back down to the bottom, leaving about 6 inches of overlap on every turn of the burlap. Do not wrap too tightly.
3. Secure burlap in place with twine at the top, middle, and bottom of the tree.



Part 6: Pruning, Removal or Planting of Public Trees

Requests for Pruning

- Property owners must submit an application (the application form can be picked up from the Town Office or found online at hanna.ca), in order to request the pruning of a public tree. Any pruning of private trees is the sole responsibility of the property owner.
- The tree will be evaluated. If pruning is deemed necessary, the tree will be placed on the Town's pruning cycle and all cost of pruning will be assumed by the Town.
- If pruning is deemed not necessary but is safe for the tree, a certified arborist may be contracted at the expense of the property owner.

Appendix B attached to this manual is the Application Form for Tree Removal or Pruning.

Requests for Removals

- Property owners must submit an application to the Town (the application form can be picked up from the Town Office or found online at www.HANNA.ca), in order to request the removal of a public tree. Any removal of private trees is the sole responsibility of the property owner.
- Each tree will be assessed on a case-by-case basis.
- If the tree is deemed not healthy by the Town or an arborist contracted by the Town, removal will be carried out by Town.
- If the tree is deemed healthy and the property owner pursues the request for removal, the cost of removal and replacement will be the responsibility of the property owner.

Appendix B attached to this manual is the Application Form for Tree Removal or Pruning.

Requests for Planting

- Property owners must submit an application to the Town (the application form can be picked up from the Town Office or found online at www.HANNA.ca), in order to request permission to plant a tree (or trees) on their boulevard.
- Planting applications will be considered for boulevards only.
- Final tree species selection will be confirmed through discussions and consultation with the town. Final approval through the application process prior to planting is mandatory.
- Unauthorized tree plantings may be removed.
- The property owner must be willing to care for the tree(s) as outlined in Part 1 of this manual.



- The Town will not be responsible for the care or possible replacement of the tree during the first five years.

Appendix C contains the Application Form for Tree Planting on Boulevards.

Part 7: Adopt-a-Tree Program

Due to limited resources, the Town of Hanna is focused on replacing old trees or trees that have been severely damaged by harsh weather. The Adopt-a-Tree program encourages citizens of Hanna to contribute to their town's urban forest by sponsoring the planting of a tree within the town.

The adoption fee will include the cost of acquiring and planting the tree. Preferred locations of where the tree will be planted can be selected; the choice of location may limit the species of tree that can be planted. This measure is taken to ensure the tree will thrive without obstructing vision or power lines, as well as look aesthetically pleasing.

If the donor chooses to have the tree planted on their boulevard, they are encouraged to provide assistance to the growth of the tree by watering the tree for the first 5 years. Generally, a young tree needs 5 gallons of water if it hasn't rained 1 inch of rain in a week. A tree watering bag will be provided to make this responsibility easier for the donor. For more information on the care of young trees, please see **Appendix E**.

For more information and to view the application form to adopt a tree, please see Town of Hanna General Policy 2018-03 for the Adopt-a-Tree Program.