

# Horton Forestry Services

June 11, 2018

Mr. Paul Neals  
Orion Environmental Services  
1930 George Johnston Rd.  
Minesing, Ontario  
L9X 1C1

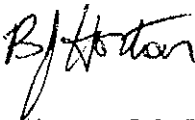
RE : Tree Inventory  
Bay Moorings Marina  
200 Fox Street, Penetanguishene

Dear Mr. Neals,

As requested, please find attached our report for the Bay Moorings Marina. The report includes an inventory of trees as well as observations relating to future development of the site and potential changes to tree cover and wildlife habitat.

Please don't hesitate to contact me if you have any questions.

Yours truly,



Brian Horton, B.Sc.F

## Introduction

At the request of Mr. Paul Neals of Orion Environmental Solutions, an inventory of trees was undertaken at the Bay Moorings Marina during the week of June 4<sup>th</sup>, 2018. All trees were recorded by species and d.b.h. (diameter at breast height). All stems had previously been plotted on a site plan during a topographical survey initiated by W.M.I. and Associates (see attached map).

In addition to the tree inventory, observations were made as to :

- Incidence of wildlife habitat located within the tree cover
- Potential tree removal during re-development and conformity to the Town of Penetanguishene Tree Cutting ByLaw

## General Observations

A total of 160 trees were identified on this 5.7 hectare (14.1 acre) property. The site supports tree species of two distinct types :

1. **Ornamental species** that were planted in and around the marina buildings (office, former Hotel, managers house) and amenities (pool, tennis courts, recreation hall). These species include predominately Honey Locust, Austrian Pine, and White Spruce.
2. **Native species** that are scattered across the site, consisting predominately of Red Oak, White Pine, and White Birch.

Stems range in size from 6 to 78 cm d.b.h. with average d.b.h. being 32 cm.

## Town of Penetanguishene Tree Cutting ByLaw

Due to the low density of stems, the trees on this site do not meet the definition of a "forest" and are therefore exempt from the Municipal Tree Cutting ByLaw.

# Trees to be classified as a Woodlot		Actual
250	of any size	160
185	per .25 ha greater than 5 cm	8.5
125	per .25 ha greater than 12 cm	7.8
60	per .25 ha greater than 20 cm	5.7

## Wildlife Habitat / Tree Health

The site does not support wildlife that could be associated with a “forested property”. The number of stems are sufficiently low, and the level of commercial activity sufficiently high that typical wildlife species would not be attracted to the site. The tree stems (trunks) are generally free from cavities or holes that would support wildlife nests and most of the tree species are in good health. However, many of the Austrian Pines are infected with a Needle-cast fungus and show signs of foliage discoloration and depletion. The needle-cast may eventually accelerate the death of these Pines. The owner may want to consider removing these trees immediately so as to prevent the spread of the fungus to newly planted coniferous trees (to be planted during redevelopment).

The site was developed in the 1960’s as a commercial Marina , and most of the forest cover was removed at that time. What we see on site today is a combination of planted ornamental trees, as well as some of the remnants of the original forest cover that was not “in the way” when the Marina was constructed. Much of the site consists of paved or gravelled roadways and parking areas.

## Tree Removal During Development

The site is in the planning stages for a waterfront residential community. Unit types consist of single family, semi-detached and townhomes.

Most of the existing trees will have to be removed during cut/fill and deep servicing activities.

An environmental clean-up and Risk Assessment is also under way on this site. Large areas of contaminated soil will have to be removed during the clean-up , with subsequent removal of tree cover.

It may be possible to retain some of the native trees that are located close to the waterfront, specifically some of the larger Red Oak and White Pine. However, it is estimated that 90% of the existing trees will need to be removed during development/soil remediation.

## Summary of Tree Inventory

Species	# stems	average d.b.h. (cm)
White Spruce	30	27
Red Oak	21	54
Austrian Pine	21	35
White Birch	20	16
Trembling Aspen	14	28
White Pine	11	49
Willow	10	32
White Ash	10	27
Honey Locust	9	44
White Cedar	6	37

Sugar Maple	5	37
Manitoba Maple	3	31