



# Lambton Meadowview Villa Management Plan

**St. Clair Region  
Conservation Authority  
March, 2011**





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## 1.0 Introduction

For more than 15 years, St. Clair Region Conservation Authority (SCRCA) and the County of Lambton have had a very successful partnership for the maintenance and development of several properties owned by the County. Since the initial formation of a partnership in 1994, a number of steps have been taken to develop natural habitat and improve passive recreation opportunities.

In 2008, the County renewed contracts for maintenance and added additional properties for SCRCA's management. In 2011 the SCRCA was asked to include the Lambton Meadowview Villa property to the areas under management. The management plan will provide direction to the Authority for the management of Lambton Meadowview Villa lands.

In order to develop management recommendations, properties managed by the Authority are broken down into subunits known as Vegetation Management Units (VMUs). Generally, each VMU is composed of a certain plant community, habitat, and/or land use. If relevant, forest inventories are conducted. Basic description of the history, soil type, herbaceous plants, wildlife features of each VMU are also provided. This information is used to develop recommendations for each VMU individually and for the Management Area as a whole.



## 2.0 Property Location and Description

Lambton Meadowview Villa is located in the geographic Township of Enniskillen, in the County of Lambton. It is on the west side of the Town of Petrolia, South half of Lot 10 in the Eleventh Concession (Map 1). The 11.7 hectare property fronts on Petrolia Line at 3958 and is bounded by private lands on the three other sides. The surrounding property uses include residential and agricultural.

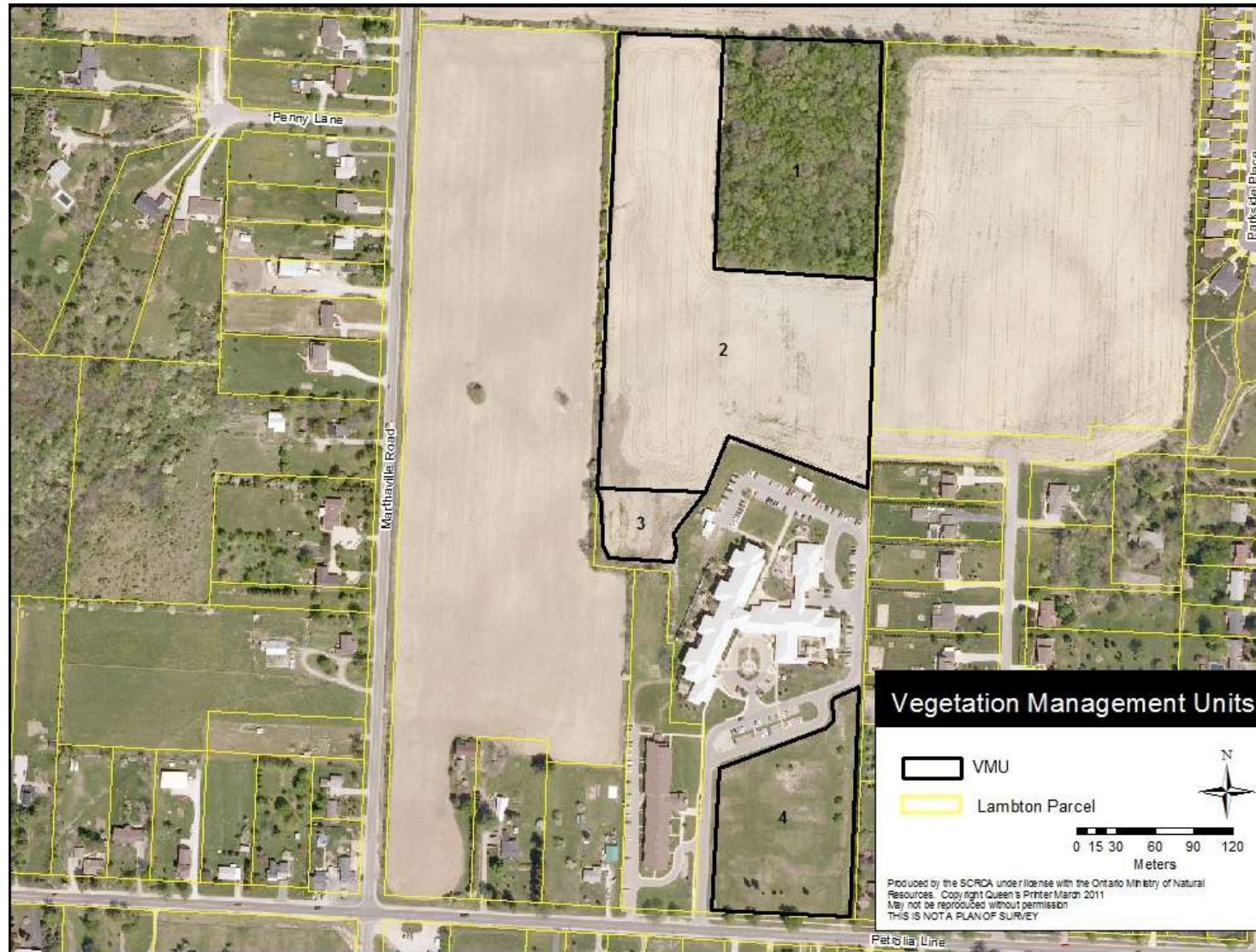
Map 1. Location of Lambton Meadowview Villa



The SCRCA was recently asked to include this property in its management planning. Former staff did inventory and marked the woodlot. The planting of native trees and shrubs was done in 2007 on the agriculture land north of the buildings. The property also has a daycare facility and residence for the aging.



**Map 2.** Vegetation Management Units of Lambton Meadowview Villa





### 3.0 Vegetation Management Units

#### VMU 1 Forest

Area 2.2 hectares

Soils Clay loam

History This area appears to be a second growth forest. A harvesting operation was conducted in 2006 to both improve the health of the stand and remove ash trees as the onset of Emerald Ash Borer has become a reality. Since the harvesting the woodlot has been left to regenerate.

Species Composition	Species	%
	Soft maple	35
	White and green ash	20
	Bur oak	15
	White elm	10
	Basswood	10
	Red oak	5
	<b>other species*</b>	<b>5</b>

\*Eastern cottonwood, black walnut, and hawthorn

Basal Area Basal area readings varied from 22 – 30 averaging 24.1 m<sup>2</sup>/ha

Size Class	POLEWOOD	SAWLOG CLASS				TOTAL
	Pole wood 10-24 cm	Small sawlog 26-36 cm	Medium sawlog 38-48 cm	Large sawlog 50-60 cm	X-Large sawlog 62 cm+	
AGS BA (m <sup>2</sup> /ha)	2	10.7	4	0.7	0.7	18.1
UGS BA (m <sup>2</sup> /ha)	1.3	4	0.7	0	0	6
Total BA (m <sup>2</sup> /ha)	3.3	14.7	4.7	0.7	0.7	24.1

AGS - acceptable growing stock – trees which will be as valuable or more valuable in ten years than they are now.

UGS - unacceptable growing stock – trees which will be less valuable in ten years than they are now.

DBH - diameter at breast height (1.3m off the ground)

<i>Shrubs and Vines</i>	Highbush cranberry, purging buckthorn, choke cherry, red rasp berry, and wild grape
<i>Herbaceous Plants</i>	None recorded at the time of survey
<i>Diseases and Insects</i>	Emerald Ash Borer and Nectria canker on Basswood
<i>Ten Year Management</i>	Inventory in the summer to confirm forest health and herbaceous plants. Control the purging buckthorn Perform a non-commercial thinning to reduce the basal area and allow more of the intermediate to intolerant tree species to regenerate.

## **VMU 2      *Plantation***

<i>Area</i>	4.4 hectares
<i>Description</i>	Retired agriculture field with clay soils. There are two wet areas within the VMU. The VMU has been planted with a mix of conifer, deciduous and shrub species totaling 7500 individual stems. The trees were machine planted in rows and vegetation control is ongoing.
<i>History</i>	This VMU prior to the establishment of trees in 2007 was leased out as agriculture land for rotational crop.
<i>Species Composition</i>	Norway spruce, silver maple, bur oak, red oak, black walnut, hackberry, chinquapin oak, sycamore, red-osier dogwood, silky dogwood, elderberry, and highbush cranberry
<i>Herbaceous Plants</i>	There is a mix of annual and perennial plants that are being controlled manually and chemically at this time.
<i>Ten Year Management</i>	Continue vegetation control in and between tree rows. Monitor the plantation for mortality and infill if required.

### **VMU 3      *Wet Perennial***

*Area*                    0.3 hectares

*Description*        This is a very wet area at the southwest corner of VMU 2. It is too wet to plant to trees and shrubs and is currently mixed annual and perennial plants.

*History*              This area was not used for agriculture with the adjacent VMU 2 due to the wet conditions.

*Species Composition*    As there are no tree species in the VMU. A species composition was not completed.

*Herbaceous Plants*        Wild carrot, ragweed, perennial grass, dandelion, goldenrod.

*Ten Year Management*    Survey the VMU to possibly establish a wetland, a water feature like a windmill or fountain will need to be considered to deter muskrats from laying eggs in the wetland.

Prepare the site and plant more desirable herbaceous species for wildlife habitat.

### **VMU 4      *Manicured grass***

*Area*                    1.4 hectares

*Description*        This is a mowed area with few trees randomly around the VMU

*History*              This was the site of the original residents. The current building was opened in 1993. The old building was then removed. This VMU was then developed into a landscape lawn area. Some coniferous and deciduous trees were also planted over the years.

*Species*              White spruce, White ash, and Austrian pine, Norway maple

*Composition*

*Herbaceous Plants*        Perennial grass

*Plants*

*Ten Year Management*    Remove the ash trees as they become infested with Emerald Ash Borer

Design a small walking trail with loop and park benches

Plant larger trees, shrubs and native plant gardens with in the walking trail area

Plant a minimum of 0.4 hectares on the east side into a plantation to create a buffer, bird habitat and reduce mowing.

## **4.0 Conclusions and Recommendations (as adopted by Council October 19, 2011)**

1. Continue/strengthen environmental (including control of invasive species) and wildlife enhancement while allowing safe and passive use by the Public.
2. Restrict use as follows:
  - Dogs - must be leashed
  - Motorized vehicles (ATVs, dirt bikes, snowmobiles, etc.) - not permitted
  - Horseback riding - permitted on trails only at walking speed
  - Hunting - not permitted
  - Bicycles - permitted on trails only at recreational speeds (no extreme or bicycle-cross)
3. Focus on pedestrian use initially and consider multi-use trails in the future should demand warrant.
4. Erect signage with regards to: intended use, hours (daylight use only), ownership, property boundaries, interpretive areas, and trail designation.

## Appendix A. Tree Species – Lambton Meadowview Villa 2011

<b>Abbr</b>	<b>Common Name</b>	<b>Scientific Name</b>
Ag	Green Ash	<i>Fraxinus pennsylvanica</i>
Aw	White Ash	<i>Fraxinus americana</i>
Pv	Choke Cherry	<i>Prunus virginiana</i>
Pd	Cottonwood	<i>Populus deltoides</i>
Ew	American White Elm	<i>Ulmus americana</i>
Ht	Hawthorn	<i>Crataegus spp.</i>
Ms	Silver Maple	<i>Acer saccharinum</i>
Ob	Bur Oak	<i>Quercus macrocarpa</i>
Or	Red Oak	<i>Quercus rubra</i>
Bd	Basswood	<i>Tilia americana</i>
Wb	Black Walnut	<i>Juglans nigra</i>
Sw	White Spruce	<i>Picea glauca</i>
Mn	Norway maple	<i>Acer platanoides</i>
Pa	Austrian Pine	<i>Pinus nigra</i>



## Appendix B. Shrubs & Vines – Lambton Meadowview Villa 2011

Common Name	Scientific Name
Purging Buckthorn	<i>Rhamnus cathartica</i>
American Highbush Cranberry	<i>Viburnum trilobum</i>
Red Raspberry	<i>Rubus idaeus L.</i>
Grape	<i>Vitus spp.</i>