CATFISH CREEK CONSERVATION AUTHORITY

Mission Statement
"To communicate and deliver resource management services and programs in order to achieve social and ecological harmony for the watershed"

Meeting of the Land Management Committee is to be held in the by on Thursday, May 28th, 2021, commencing at **10:00 a.m.**

The meeting will be conducted Via Zoom. An invite will be e-mailed to attendees. Public will have access to view on YouTube

A G E N D A

1) Welcome / Call to Order . . . . . Arthur Oslach

2) Adoption of Agenda

3) Disclosure of Pecuniary Interest

4) Disclosure of Intention to Audio / Video Record Meeting

5) Public / Special Delegations

6) Reports:

   a) Report LM 01/2021 - Springwater Master Plan 2020-2040. . . . . 3 - 82
   (Dusty Underhill)

   b) Report LM 02/2021 - Wildlife Co-Management Program . . . . . 83 - 90
   (Dusty Underhill)

   c) Report LM 03/2021 - Bird Studies Canada Research Permit 91
   (Christopher Wilkinson)

   d) Report LM 04/2021 - TVDSB Land Use Agreement 92
   (Christopher Wilkinson)

   e) Report LM 05/2021 - Yarmouth Natural Heritage Area Controlled Hunt . . . . . 93 - 101
   (Christopher Wilkinson)

7) Unfinished Business

8) Committee Chairperson's / Committee Member's Report

9) Correspondence:

a) Copied:

- None

b) Not Copied:

- None

10) Notice of Motions / New Business

11) In Camera Session

a) A proposed or pending acquisition or disposition of land by the Authority (13 c)

12) Adjournment

REPORT LM 01 / 2021 : To The Full Authority

FROM: Dusty Underhill, Conservation Areas Supervisor

SUBJECT: Springwater Master Plan 2020-2040

DATE: May 11, 2021

Purpose:

To approve the updated and final Springwater Master Plan 2020-2040.

Background:

The Springwater Conservation Area Master Plan is a comprehensive and strategic document created to protect, conserve and restore the valuable ecological features and functions associated with the Springwater Conservation Area while guiding the current and potential future public uses of the Conservation Area. The Springwater Conservation Area Master Plan is intended to provide a vision of what is possible and motivate partners and supporters to assist Catfish Creek Conservation Authority has in realizing that vision. It will also be used to make future informed decisions by the Catfish Creek Conservation Authority Board of Directors to make decisions about priorities, and it will be used as a tool to align staff and fiscal resources with the identified priorities.

The Master Plan document includes an introduction, description of environmental resources and cultural resources. The plan also includes a market analysis, documents the relevant strategic directions, and provides an implementation plan. Finally, and most importantly, the section and the Master Plan concepts and estimates will help plan the operational and capital costs associated with implementing the current concepts.

A draft plan was brought to the Land Management Committee in November 2020, sent out for public consultation from December 2020 – February 2021. Over 50 responses were received during the public consultation.

Current Status:

The Plan was updated as a result of additional staff input and the input received through public consultation, and is now before the committee for approval.

Updates from the draft presented in November 2020 include:

1. Page 48 – Added a section describing the results of the public consultation.
2. Page 64 – Added details of the social media channels used to communicate events and status of Springwater.
3. Page 68 – Updated Map showing the proposed development plan for over the next 20 years with a section for roofed accommodations and adjustments to boundaries of proposed phases.

4. Page 68 to 70 – Prioritized the proposed development concepts based on the results of public consultation.
5. Page 71 – Updated development cost estimates with additional Projects to satisfy the prioritized development concepts. For example, the cost to deliver an addition of a water quality study was added based on the public importance of reservoir water quality.

Recommendation:

That the Land Management Committee recommend to the Full Authority to adopt the Springwater Master Plan 2020-2040 as presented.

Dusty Underhill
Conservation Areas Supervisor

Springwater Master Plan 2020-2040

May 2021

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Acknowledgements

Thanks to the following individuals and groups for assisting in the preparation of the Springwater Master Plan:

- Board Members and Member Municipalities for their continued support of the Conservation Areas program.
- Previous and Current Staff for their Plans, input and suggestions.
- Community members are thanked for providing donations to support the maintenance of the forest infrastructure and their public input.
- Partners such as Birds Studies Canada, Canadian Chestnut Council, the Aylmer District Trappers Council (ADTC), the Aylmer Malahide Museum & Archives, and the Universities of Western and Guelph for their continued research projects in the forest which will help ensure its environmental sustainability for years to come.

Master Plan Summary

Before Springwater Conservation Area was created, its value as a significant natural resource was widely recognized by naturalists, conservationists, and the community.

> *Springwater: This beautiful pond on Bradley Creek is one of the loveliest spots on the Catfish Watershed. The pond itself is over a quarter mile long and surrounded by magnificent woodland. The woods are one of the few unspoiled areas of Southern Ontario and here may be seen majestic oaks, pines and maples standing in all their primitive splendour as they have done for three hundred years and more. This pond and the land surrounding it are the greatest assets of the Catfish Watershed for they not only provide recreational facilities such as swimming, boating, fishing and nature study, but are a very important source of water to the stream itself. The magnificent woods, too, could be made, under proper forest management, a great source of revenue from the sale of timber*. [1]
>
> A.H. Richardson, Chief Conservation Engineer, 1951

Thanks to the former owner of the property, Fred White, this tract of land remains one of the few large upland forested areas left in South-Western Ontario.

When the Catfish Creek Conservation Authority purchased the "White's Bush" in 1963, its members fully recognized its potential for outdoor recreation, but concern for the protection and wise management of the natural features was of primary importance. By 1965, the original Master Plan for the Conservation Area had been prepared to guide development of the property and many of the concepts contained within it have been utilised. By 1983, an updated Master Plan was prepared by Mark Snowsell with contributions from Mr. Kim Smale. In 1990, a revised master plan was prepared which provided an update to the management practices and prices for development. In 1996, 15 years after the Master Plan was updated, an Interim Operational Land Management Plan was developed by Mr. Kim Smale with contributions from Ed Pietrzak, Conservation Areas Supervisor and the Ministry of Natural Resources Aylmer District staff.

[1] AH Richardson 1951. Catfish Creek Conservation Report, Department Of Planning And Development, Toronto.

The preparation of an updated Master Plan is required to guide development at the Conservation Area in a series of phases over the next 20-year period. Review of the Master Plan should be take place

annually so that the goals and objectives can be evaluated and new development concepts considered. Highlights of the 2020-2040 Springwater Conservation Area Master Plan are as follows:

1. A series of development projects that relate to the Authority's strategic plan related to ensuring our organization is sustainable by improving, upgrading and renovating existing facilities at Springwater Conservation Area. These include campground expansions and enhancements anticipated to generate additional revenue to deliver on our mission/vision and to generate revenue which will offset the costs to deliver Provincially Mandated Programs. Development projects are outlined in four five year phases commencing in 2020 and continuing through 2040.
2. Enhancements are proposed that relate to the Authority's strategic plan related to Curating an Appreciation for Nature. These include a summer camp, enhanced program activities for school groups and adult learners, and enhanced educational opportunities.
3. Operational criteria that relate to the Authority's strategic plan related to Protecting Life & Minimizing Property Damage from Flooding and Erosion. This includes managing the dam for flood control and managing erosion in and access to the incised valleys found in Springwater.
4. Improving the Ecological Health of the Catfish Creek by improving the water quality.
5. Acquisition of adjacent lands would provide opportunities to further promote conservation practices such as woodlot management, erosion control, fish and wildlife management, passive recreation and/or the protection of hazard lands.

Development costs contained in the four phases have been estimated at $2,100,000.

Introduction

The Springwater Conservation Area Master Plan is a comprehensive and strategic document created to protect, conserve and restore the valuable ecological features and functions associated with the Springwater Conservation Area while guiding the current and potential future public uses of the Conservation Area. The Springwater Conservation Area Master Plan is intended to provide a vision of what is possible and motivate partners and supporters to assist Catfish Creek Conservation Authority in realizing that vision. This Master Plan will guide the management and use of Springwater Conservation Area until 2040.

The Springwater Conservation Area Master Plan will help us to:

- Identify a clear and agreed-upon set of goals for Springwater Conservation Area
- Streamline and focus decision making
- Allow human and fiscal resources to be accurately and appropriately aligned with identified priorities
- Develop a forward-looking and forward-thinking vision for Springwater Conservation Area
- Ensure Springwater Conservation Area continues to meet the needs of our watershed and community.

Catfish Creek Conservation Authority has not undertaken a significant review of Springwater Conservation Area programming in more than twenty years. Since that time public use of Springwater

Conservation Area has increased dramatically, while new and different approaches to outdoor recreation and education have emerged. The Conservation Area requires new infrastructure investments to support the increase in users and changing demographics of the users. Outputs such as potential land acquisitions identified from this detailed Management Plan will be considered through CCCA's recently approved Lands Acquisition and Disposal Policies[2].

CCCA's 2019-2023 Strategic Plan recognizes the importance of Springwater by ensuring conservation lands are protected and enhanced. In addition, the Township of Malahide is updating its Integrated Community Sustainability Plan called Cultivating Malahide and guides future development of our communities to support future growth (population, infrastructure and economic) while protecting the environment and addressing important local needs.

The Springwater Conservation Area Master Plan is anticipated to approved by the Board of Directors in 2021. The Master Plan will be used by the Catfish Creek Conservation Authority Board of Directors to make decisions about priorities, and it will be used as a tool to align staff and fiscal resources with the identified priorities.

Background

Prior to its purchase on June 19th, 1963, White's Bush, as it was known by area residents was the property of Fred D. White. Fortunately, it was Mr. White's desire to maintain his land in a natural state. Late in life, Mr. White attempted to sell this tract of land to anyone who would ensure its preservation but is was not until a year after he died that the Catfish Creek Conservation Authority purchased the property in sections. The 1963 purchase included Springwater Forest and pond, a one-acre section north of Malahide Concession Road 6, and land now occupied by the campground and administration office. Jaffa Tract was acquired in 1964, and the one-acre section containing the old schoolhouse was purchased in 1965.

Realizing its obvious potential for providing a wide variety of outdoor recreational opportunities for area residents, the Authority engaged Canadian Mitchell Associates Limited to prepare a Master Development Plan for Springwater in 1964-65. In August of 1965, the Plan was completed. It contained guidelines for a four phase development of areas for camping, hiking, boating, picnicking, recreation and nature appreciation.

Since 1965, many of the development proposals were incorporated such as the development of the beach area, construction of new washroom and shower facilities, and addition of new campsites. Development projects over the past twenty years have not been particularly large scale but focused on enhanced recreational opportunities such as an accessible trail and fishing platforms, and facility upgrades such as accessibility improvements to the Community Room used for Pancakes at the Maple Syrup Festival. Further details of capital projects completed over the past 15 years are provided below in Table 1.

[2] https://www.catfishcreek.ca/about-us/publications/

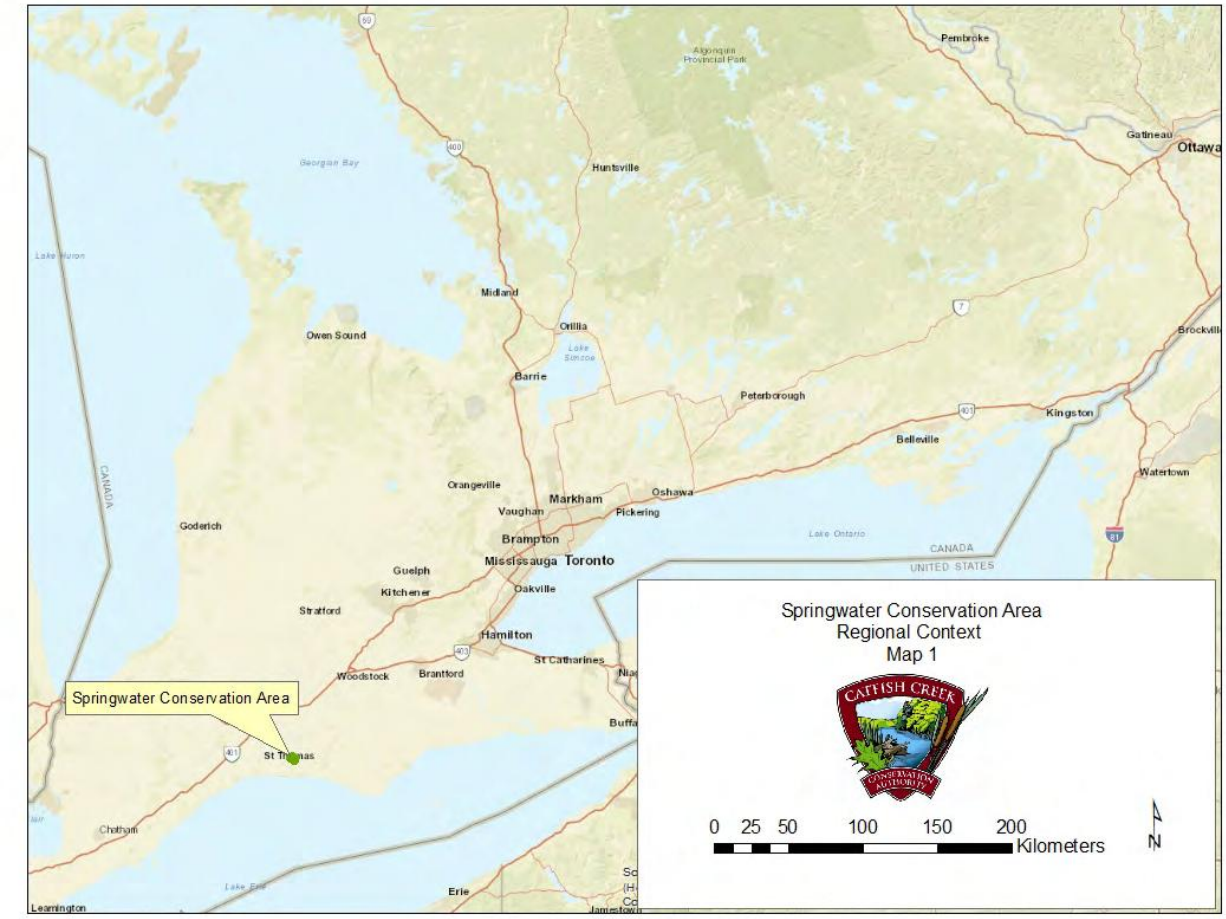
Table 1: List of Capital Development Projects since 2005

Year	Description
2005	Seasonal Pavilion Construction
2007	Pine Ridge Washroom Roof
2009	Beach Washroom Expansion and Solar Panels
2010	South Pavilion Roof
2011	Pavilion Washroom Field Bed Repairs
2012	West Campground Hydro/ Water Group Camping Expansion
2012	Boardwalk Repair and Resurfacing
2012	Dam Safety Refurbish
2013	Accessible Trail
2015	West Campground Poplar Hill Washroom Expansion
2017	Observation Platform Resurfacing
2018	Bridge Reconstruction Between Bradley Creek and Lower Pine
2018	Community Room / Shop Accessible
2019	Electrical Upgrades West Campground
2019	Water and Sewage Pump Upgrades
2021	Visitor Centre and enhanced security (automated gates)
2021	Education / Music Stage

Regional Context

Springwater is located in eastern Elgin County and situated in the South-central part of the Catfish Creek watershed. It also lies in the heart of the Deciduous Forest Region and the Norfolk Sand Plain physiographic region. Other significant public recreation lands in the region include Port Stanley beach (25 km to the South West), Port Bruce Provincial Park (15 km to the south), Long Point Provincial Park (60 km to the southeast), Dalewood Conservation Area (15km to the northwest) and Lake Whittaker Conservation Area (25km to the north). Refer to Map 1.

Figure 1: Regional Context Map (Map 1)

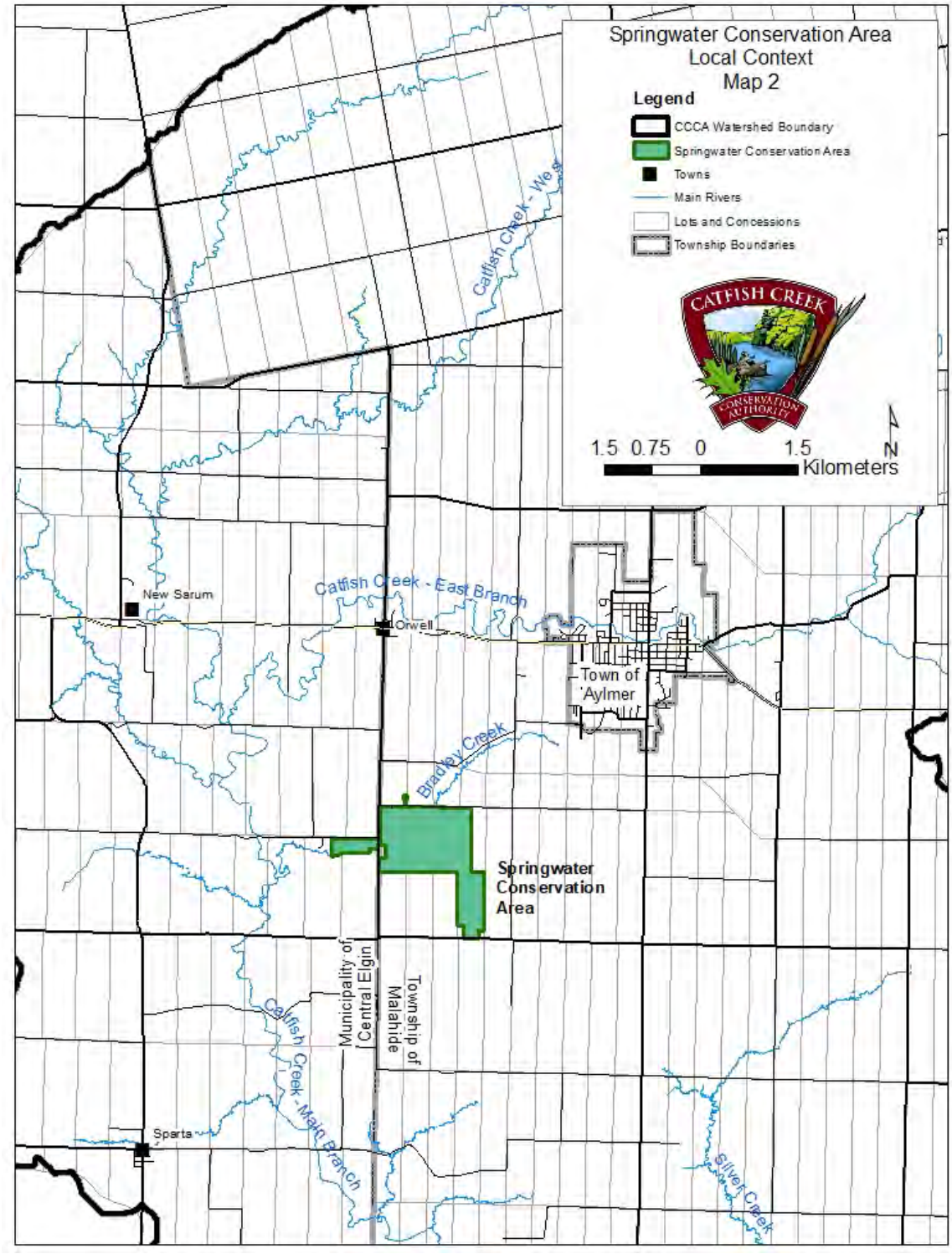


Lying within a region devoted largely to agriculture land use, Springwater, with its vast maple-beach-oak upland forest, is a valuable remnant of the landscape settlers observed when they first arrived in the area in the 1800's.

Local Context

Springwater Conservation Area is situated three kilometers south of Highway #3 from Orwell on Elgin County Road 35 (Springwater Road) between Aylmer and St. Thomas. The property is split across two townships. The administration building and seasonal camping sections are on Lot 28, Concession 6, Municipality of Central Elgin, while the pond, day-use area and forest are located within parts of Lots 1-4, Concession 5 in Malahide Township. Refer to Map 2.

Figure 2: Local Context (Map 2)



Access

There is easy access by vehicle to Springwater Conservation Area from various parts of the province. Highway #3 is three kilometers to the north and is the main east-west artery between Tillsonburg and St. Thomas. This highway has several links with Highway 401 including Highway 73 (Elgin Road).

Alternatively, County Road 45 (John Wise Road) is a common tourist route between St. Thomas and Long Point and is only two kilometers to the south of the Conservation Area. Springwater Road splits the park and joins both Highway #3 to the north and Highway #45 to the south. Refer to Maps 1 and 2.

Size

Springwater Conservation Area includes the camping areas, day-use areas, the pond and Agreement Forest covering 462 acres. The various properties that make up Springwater Conservation Area are as follows:

Table 2: List of properties that make up Springwater Conservation Area

Property	Address	Acreage
Forest, Day-Use Area, Beach & Schoolhouse	47719 Conservation Line, Malahide	343.97
Springwater Forest North Parcel	47719 Conservation Line, Malahide	0.91
Jaffa Tract	48278 John Wise Line, Malahide	93
Administration Building and Campground	8079 and 8059 Springwater Road, Central Elgin	23.5
		461.38

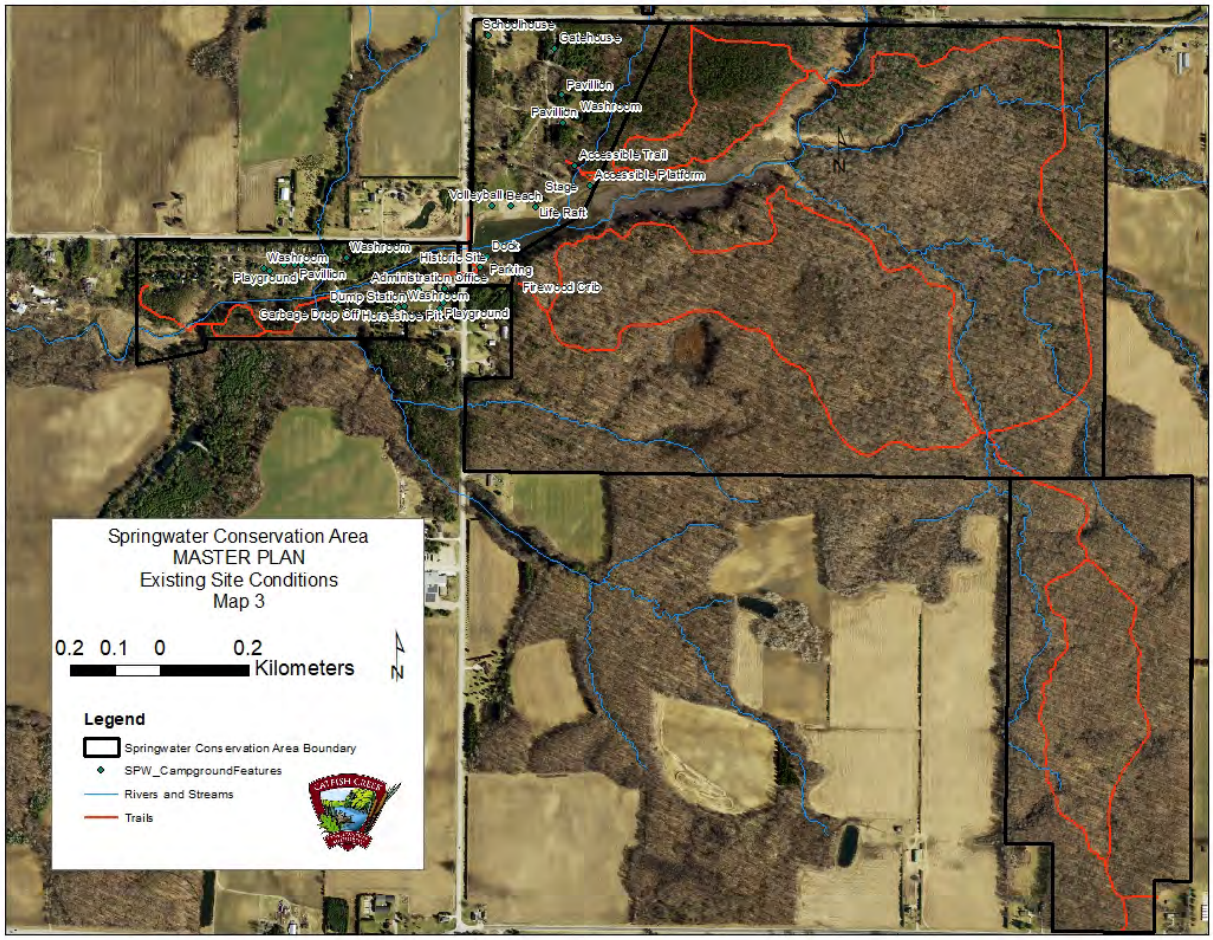
Existing Land Use

Springwater provides numerous opportunities for outdoor recreation. As noted above, 23.5 acres is devoted to a seasonal campground. The day use area provides facilities for transient camping, picnicking, fishing, hiking, swimming, canoeing, kayaking, wildlife viewing, outdoor classrooms, and entertainment.

The reservoir is used for various water based activities such as fishing, swimming, canoeing and kayaking, but also used to retain silt from making upstream deposits and to mitigate the Bradley Creek floodwater contribution to Catfish Creek.

The forest areas are used for wildlife viewing, outdoor recreation (hiking, wildlife viewing, skiing), a source of revenue from timber, habitat enhancement from fallen trees, a research centre for academic research into tree diseases, and the mitigation of floods through the retention and slowing down of rain waters. Other functions of the forest include food supply for various fauna, air filtration to sequester Carbon Dioxide, wind reduction, temperature modification, and education.

Figure 3: Existing Land Use (Map 3)



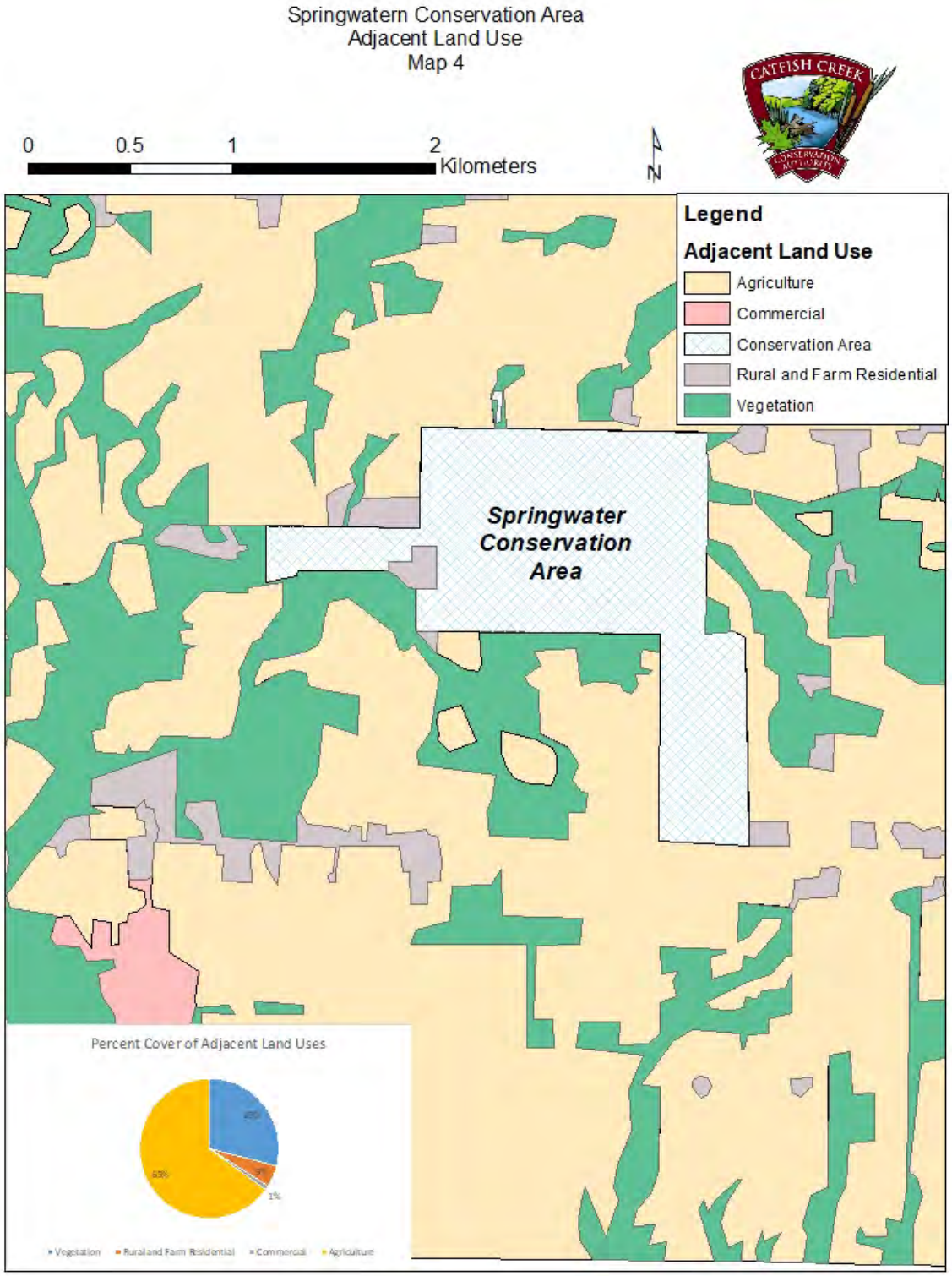
Adjacent Land Use

A very large proportion of the land around Springwater is used for intensive agriculture, in particular tobacco and corn production.

Based on a 2km analysis boundary, 65% of land around Springwater is cultivated for general field crops and used as orchards. Map 4 illustrates the adjacent land uses and dominance of agricultural land uses.

The next largest proportion of land at 29% is wooded and vegetation. The remaining lands consist of Rural and Farm Residential (5%) and Commercial (1%).

Figure 4: Adjacent Land Uses (Map 4)



Environmental Resources

Climate

According to Brown, McKay and Chapman, Springwater Conservation Area is located within the Lake Erie Counties Climatic Region[3]. It is characterized by warm, moist climate and a relatively long growing season. Typical climatic features of the area are illustrated in Table 3 below.

Table 3: Typical Springwater Climatic Features

Measure	Value
Daily Average (°C)	8.7
Rainfall (mm) Per Year	874.4
Snowfall (cm) Per Year	118.6
Precipitation (mm) Per Year	993
Days >= 0.2 mm with Rainfall Per Year	132.9
Days >= 5 mm with Rainfall Per Year	53
Days >= 10 mm with Rainfall Per Year	29.1
Days >= 25 mm with Rainfall Per Year	6.1
Days With >= 0.2 cm Snowfall Per Year	31.8
Days With >= 5 cm Snowfall Per Year	8.3
Days With >= 10 cm Snowfall Per Year	2.9
Days With >= 25 cm Snowfall Per Year	0.08
Days with >= 0.2 mm Precipitation Per Year	159
Days with >= 5 mm Precipitation Per Year	61.5
Days with >= 10 mm Precipitation Per Year	32.5
Days with >= 25 mm Precipitation Per Year	6.2
Daily Average (°C)	8.7
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Days with >= 10 mm Precipitation Per Year	32.5
Days with >= 25 mm Precipitation Per Year	6.2

On a regional scale, one type of weather activity that occurs periodically is freezing rain. Although harmful effects of freezing rain vary from location to location, Springwater, with its very mature forest cover, is susceptible to extensive tree damage. This is particularly true if freezing rain is followed by a cold snap accompanied by heavy snowfall. These conditions have occurred historically in which salvage logging operations were warranted due to freezing rain damage.

There are also some interesting microclimatic features noted at Springwater. For instance, temperature readings in the forest relative to the surrounding open areas is on the average 7°C less. These cooler temperatures help to maintain flora and fauna ecosystems in balance. The measured temperatures

[3] Brown, D.A., McKay and L.J. Chapman 1980. The Climate of Southern Ontario. Environment Canada, Atmospheric Environment Service, Toronto, P. 67.

illustrate the moderating and cooling effect a mature forest has on air temperature which in turn helps the fragile ecosystems within. A similar effect occurs in the spring as snow is retained within the forest longer than the surrounding open areas. The longer retention of the snow pack assists with a better and more sustainable water retention within the wetlands of the Springwater Forest, which in turn assists with the fragile mature forest ecosystems of the Springwater Forest.

Wind velocities are also much lower in the forest. This contrasts with the high ground area around the schoolhouse in the northwest corner of the property where winds are always the strongest. One drawback of the climate in the surrounding area including Springwater Forest is the lower number of days with reliable snow cover. Users of the forest and other parts of the Conservation Area for winter recreation have a limited season in which to participate in winter activities.

Geology and Landforms

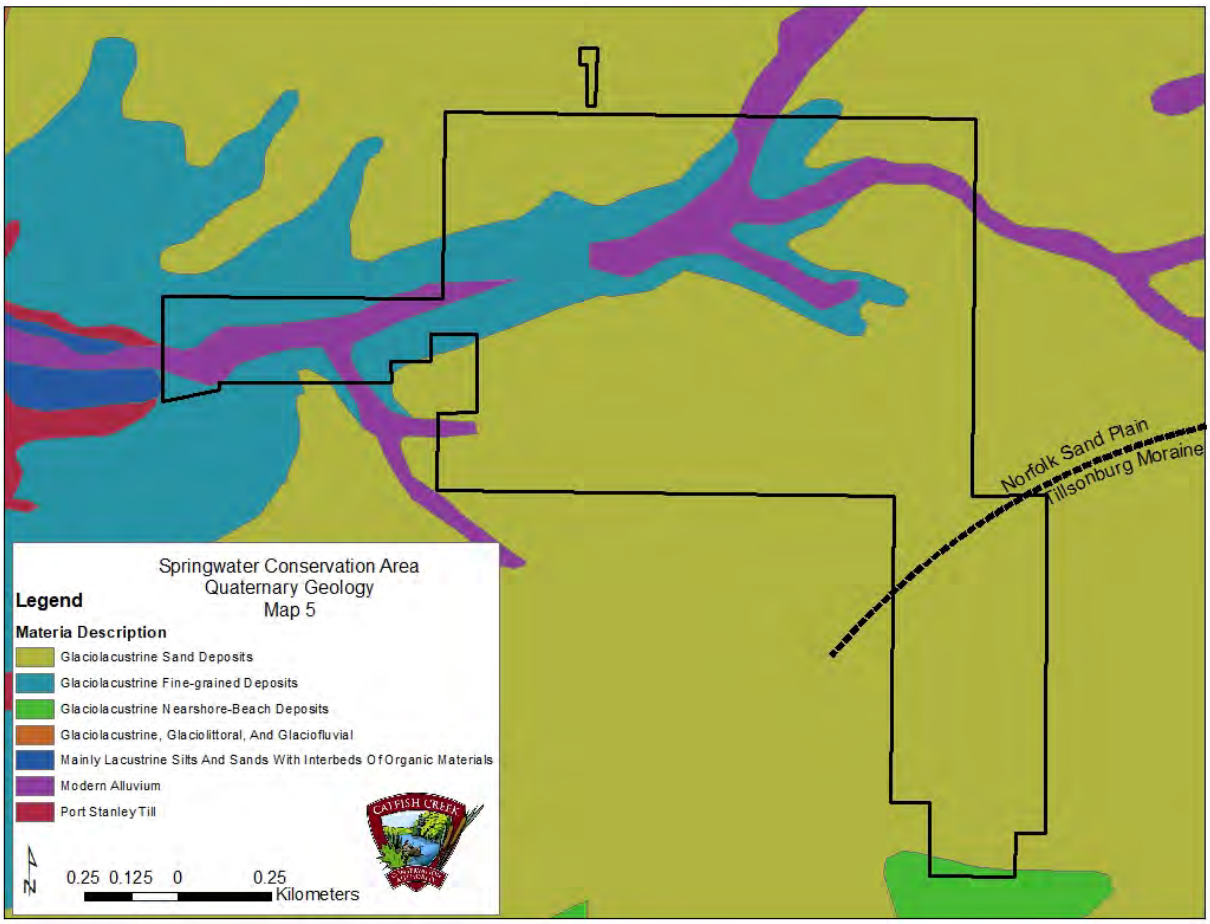
The underlying bedrock in Springwater is primarily Middle Devonian limestone of the Delaware Formation. However, all of the bedrock is overlain with over 50 meters of unconsolidated deposits as outlined in Map 5.

The primary geologic deposit found throughout Springwater is glaciolacustrine sand deposits from the Late Wisconsin glacial ice extent, and consists of fine to coarse grained sand modified slightly by wind action.

At the south end of Jaffa is found glaciolacustrine nearshore-beach deposits again from the Wisconsin Glacial Stage and consists of gravel and gravelly sand.

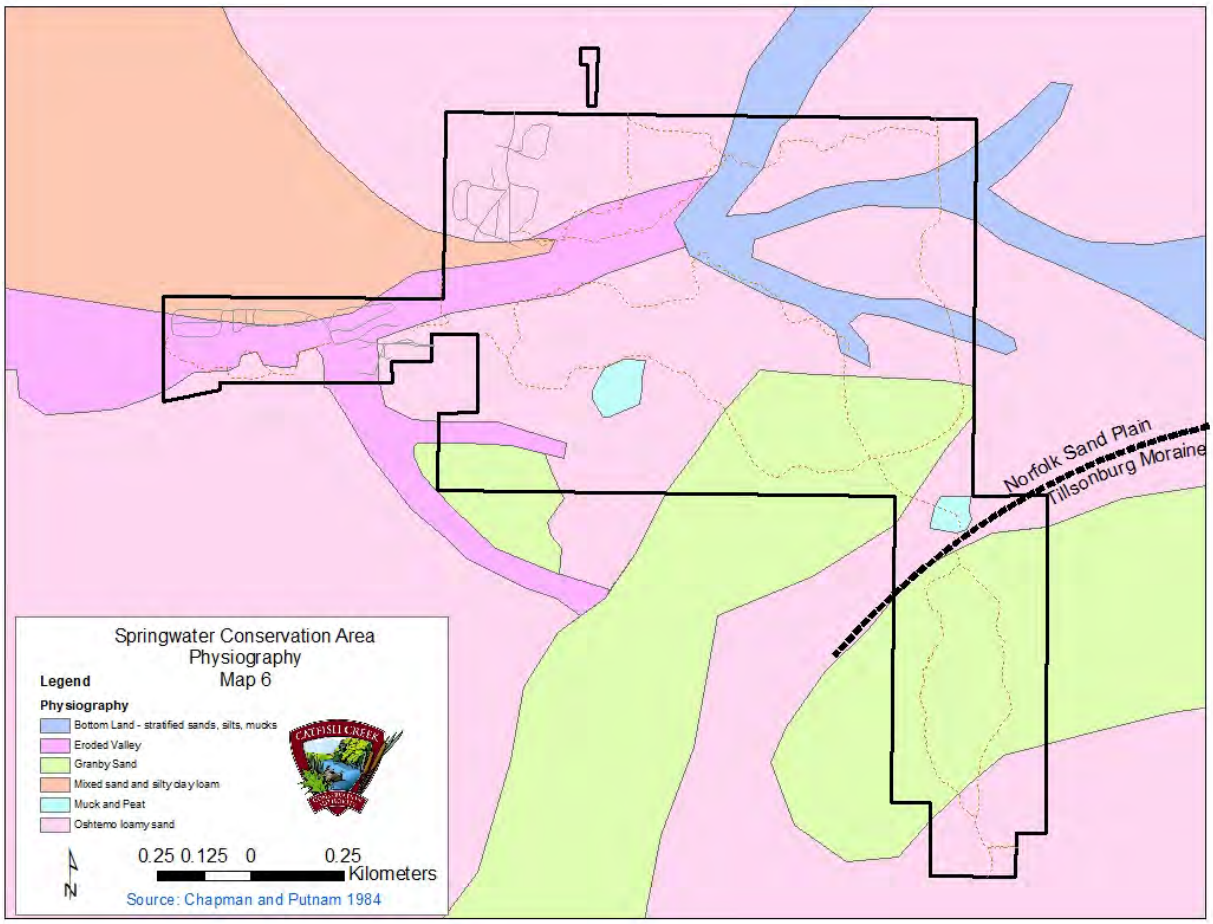
More recent alluvial deposits from the Holocene Era are found in the lower course of the river system and consist of undifferentiated material such as gravel, sand, silt, clay and muck.

Figure 5: Landforms and Geology (Map 5)



Map 6 reveals the dominant landform feature in the Springwater area is Norfolk Sand Plain which is characterized by a broadly rolling sand plain. The sand plain is formed of deep deposits of deltaic lacustrine sands which are generally level or very gentry rolling except in the eastern half of the Springwater Forest where they become irregular and moderately rolling.

Figure 6: Soils and Physiography (Map 6)



Other landform features have been developed on the sand plain. Young V-shaped valleys and broad flood plain valleys up to 10 meters deep are located in Springwater. A sand plain basin wetland of muck and peat occurs south of the reservoir, occupying approximately 1.8 hectares. Depression swamps also occupy substantial portions of land, particularly in the Jaffa Tract where close to one-quarter of the area is loam and perennially covered with water.

Finally, a buried moraine sand plain encompasses all of the Jaffa Tract and is likely a buried arm of the Tillsonburg Till Moraine.

Soils

Five soil groups are represented in the Springwater Conservation Area and forest. Oshtemo loamy sand is found throughout the study area on the well drained, very gently rolling sand plain sites. The soil is generally acidic, yellowish sand that has relatively low natural organic content. Field crops such as flue-cured tobacco, corn and beans, and fruit crops such as apples, squash and berries are typically grown in the surrounding fields. A variety of tree species such as white pint, maple, beach and oak grow very well in this environment.

Granby sand is characterized by having grey mottled subsoil with neutral to alkaline reaction and naturally low fertility is found in some of the moister, poorly drained rolling lands of the Jaffa Tract (Refer to Map 6 above).

A third soil type, found on the floodplains of the broader incised valleys is referred to as bottom land soil. This soil is a mix of stratified sand, silts and mucks that help create moist terraces while very wet mucks form seepage bottoms.

Another soil type is called Eroded Valley, is the name of the soil found on the slopes of the incised valleys. This material is susceptible to slumping and erosion if trampled or cleared, has an immature sandy profile with acid reaction and irregular horizonation.

Muckland, or muck and peat deposits are found throughout the forested areas of Springwater. Two significant examples are presented in the sand plain wetland marsh and in the permanent swamp in the southeastern corner of Springwater Forest. These muck deposits exceed 0.5meters in thickness and are perennially inundated.

Due to the sandy nature of the dominant soils, the inherent water-holding capacity plus the nutrient holding capacity are both low. In terms of agricultural land use (e.g. for tobacco), irrigation, fertilization and erosion control must be used extensively. In terms of recreational land use (e.g. hiking, mountain biking), care must be taken to avoid over compaction of soils which can lead to nutrient loss, accelerated erosion and further reduction of the water-holding capacity.

Geomorphology

About 15,000 years ago, Elgin County began to emerge from beneath the heavy glacial ice lobes of the Lake Erie and Lake Huron basins. Many features were being created and modified as the ice retreated and melted. In this part of the province, terminal and recessional moraines were formed as the ice lobes moved away. Vast water bodies occupied large areas and had different shorelines far further inland that they are today.

Glacial Lake Maumee occupied the Lake Erie basin at different stages approximately 14,000 years ago. Later, Lake Arkona and Lake Whittlesey produced new features and deposited new lacustrine sands, silts and clays. Earlier features were subsequently buried while the latest deposits helped to form the Norfolk Sand Plain on which Springwater is now located. By 12,000 years ago, the Springwater area was a terrestrial environment and isostatic readjustment helped to promote stream incision as the entire region drained. Even smaller streams such as Bradley Creek were probably carrying substantial volumes of water through the Springwater area, although it is not shown as a spillway on quaternary geology maps.

Today, Springwater is situated on a land mass that has been dramatically modified by glacial and post-glacial activity. Even now, wind and water continue to rework the land with valleys widening and deepening and surface sediments being carried away by aeolian[4] and fluvial forces. Alterations to the landscape are subtle in a short time frame but the terrestrial environment will always be changing.

[4] Aeolian processes pertain to wind activity in the study of geology and weather and specifically to the wind's ability to shape the surface of the Earth

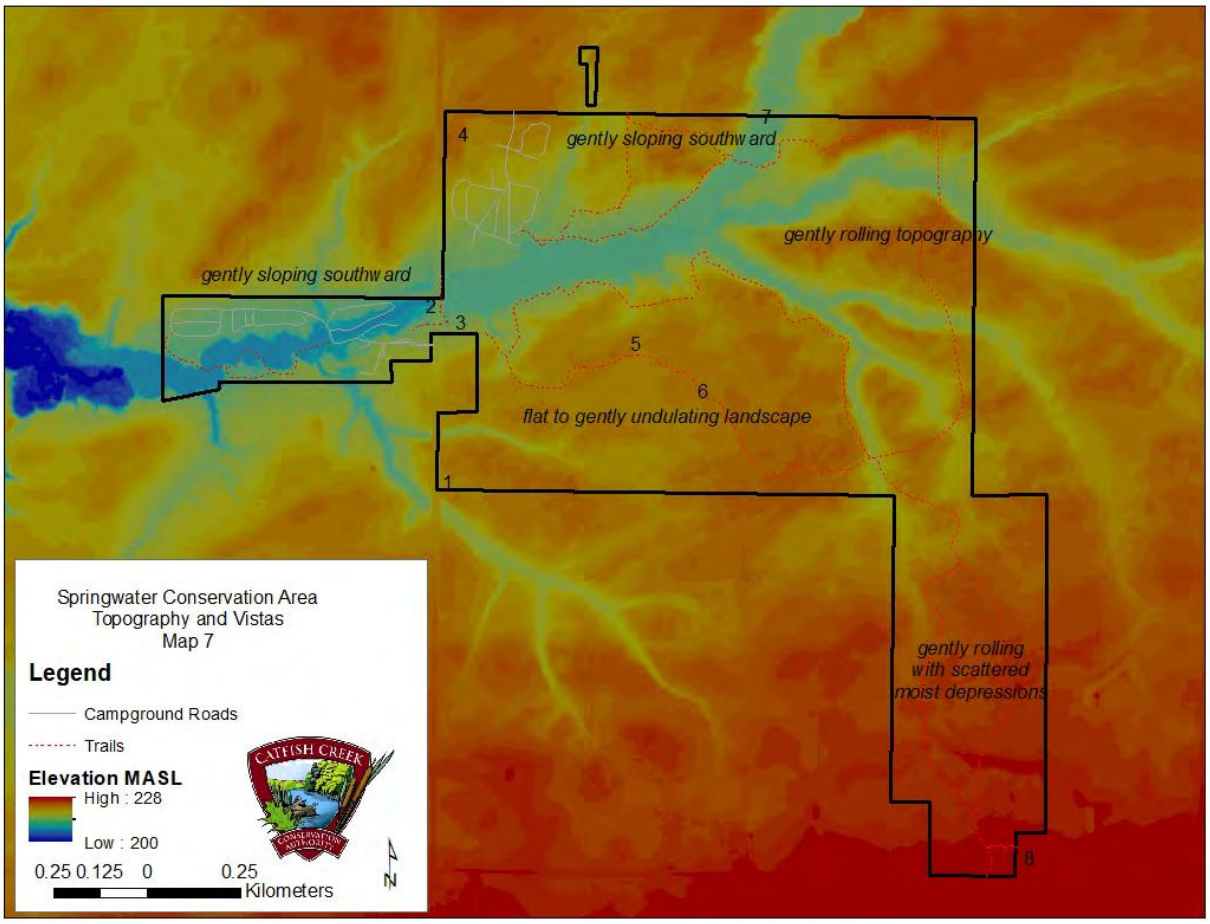
Topography

Elevations vary from 200-220 meters above mean sea level. The lowest areas are those in the creek valley and beach area, and the highest areas are found in the south end of the Jaffa tract. Most of the day use area, the developed camping sections and the wooded areas have an elevation of approximately 205 meters above mean seal level.

Map 7 describes the topographic features in the park including the broad or narrow incised valley land. Much of the eastern half of Springwater Forest is dissected by these fluvial incisions. The valleys have cut down 5 to 10 meters into the sand plain with slopes of over 30 percent observed. Similar topography is noted downstream of the reservoir as Bradley Creek and some minor tributaries cut through this part of Springwater.

The rest of the park land is gently sloping, gently rolling and undulating. A land unit with irregular topography is the Jaffa Tract and the southeast corner of the Springwater Forest. Distinct from other parts of the property, this area has an irregular, moderately rolling surface scattered with wet depressions.

Figure 7: Topography (Map 7)



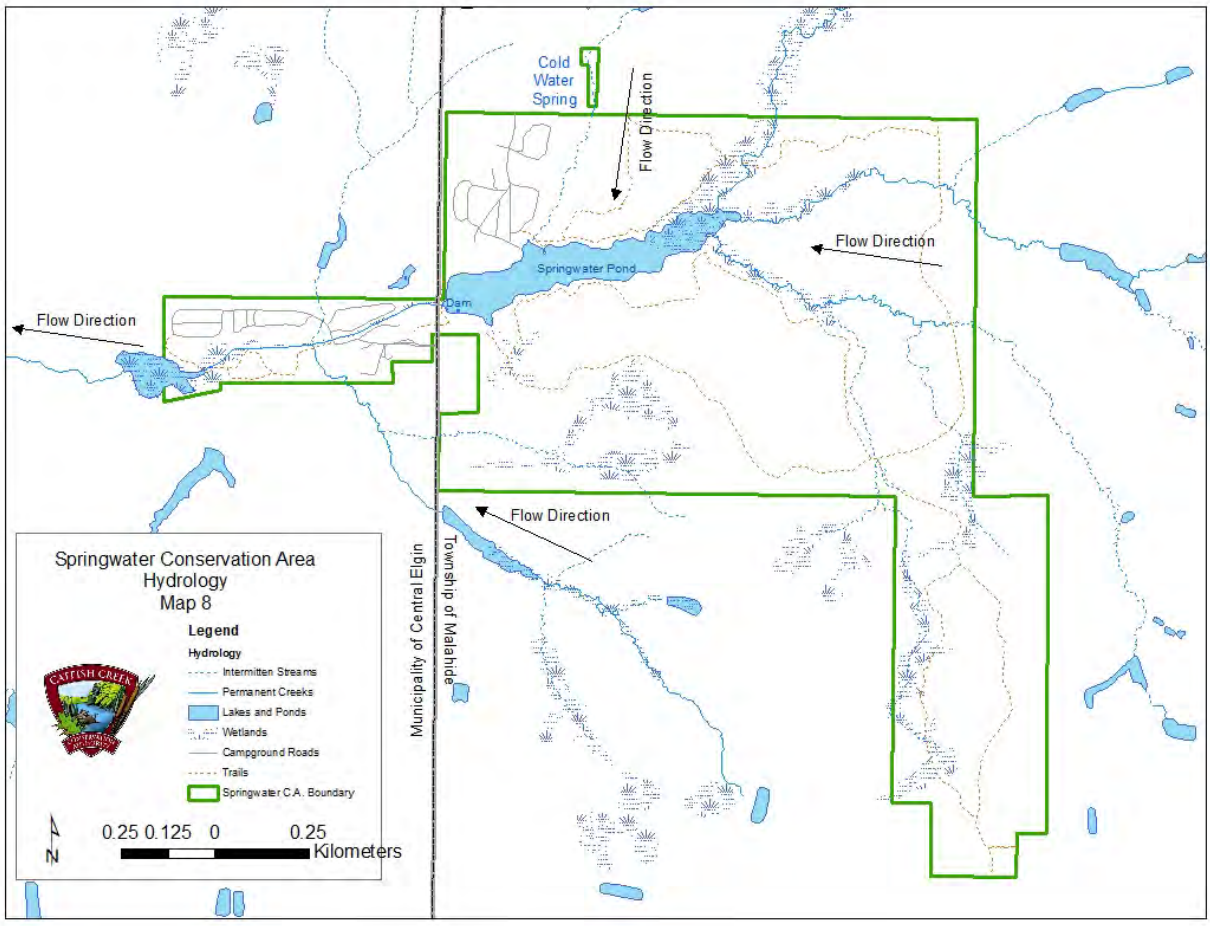
Hydrology

Springwater Conservation Area and forest is recognized as one of the most important sources of water in the Catfish Creek watershed. The forest and wetland depression areas contained within it have significant water storage capacity.

Springwater Reservoir was a beaver pond until at least 1830, and is fed by Bradley Creek and two of its tributaries which enter the Pond at the eastern end. Springwater Reservoir is the largest of several man made water bodies in the small 18 km^2 Bradley creek sub-watershed. Over a dozen water control structures exist for the purposes of irrigation for agriculture, wildlife habitat, and recreation purposes[5].

Early landowners of the Springwater property built a dam on Bradley creek in about 1860. Water power generated here was used for a grist mill that was situated on the south end of the pond. Cold spring water (hence the name Springwater) found in the vicinity feeds into the pond and the streams and trout were found in Bradley Creek until the late 1800's. One such spring is located within the small portion of the property north of Conservation Line across from the Schoolhouse (Refer to Map 8). Up until the mid 1900's, warm water species such as bass were abundant in the sub watershed.

Figure 8: Hydrology



[5] CCCA Dam Inventory, 2008

Gradually, as more land in the surrounding area was used for intensive agriculture (e.g. tobacco and other cash crops) the stream carried larger sediment loads into the pond and water temperatures rose with the removal of riparian vegetation. By the time the CCCA had purchased the Springwater property in 1963, heavy sediment deposition filled the reservoir, particularly at the eastern end. Between 1967 and 1969, the western end of the reservoir was dredged, logs and other debris removed and a new dam was constructed. This new dam uses a wooden stop log system and is used to balance the water level to support multiple purposes such as recreation, habitat, ensure sufficient water down stream in low flow conditions, retain water for the purposes of flood control.

Near the dam itself, water depth reaches a maximum of 4.9 meters while at the eastern end of the reservoir water depths average only 1 metre. Heavy sediment loads continue to be deposited in the Reservoir and average water depths are slowly decreasing as seen in Table 4 below. The Reservoir will eventually transform into a wetland unless dredging activities are carried out.

Table 4: Average Depths of Springwater Reservoir over time

Year	West End Depth	East End Depth
1983	4.9 Metres	1 metre average
2019	4.2 Metres	.6 metre average

Water quantity in Bradley Creek downstream of the Reservoir is influenced by the water levels in the Reservoir and the management of the dam and stop log system. There is significant use of water for irrigation of cash crops during the summer months that results in lower water levels in the pond.

The Catfish Creek Irrigation Advisory Committee (IAC) was formed in 2006 as part of the "Coordinating Crops Irrigation Water Across the Norfolk Sand Plain Project" funded by the Canada-Ontario Water Supply Expansion Program (COWSEP) over a two (2) year period. Funding for this particular project ended in 2007 and was never reinstated, however the IAC governance is still in place should it be required. CCCA has no jurisdiction over the amount of water used for irrigation purposes which is managed through the Permit to Take Water (PTTW) Program with the Ontario Ministry of Environment, Conservation and Parks[6]. The applicable legislation for water taking permits is Ontario Water Resources Act, R.S.O. 1990[7], c. O.40 Sections 34 to 34.11 and the associated regulations contained within O. Reg. 387/04: Water Taking and Transfer[8]. As reported in CCCA's Programs and Services Guide[9], CCCA staff do help landowners with PTTW Program applications as required.

Low rainfall and hot weather can result in low flows and low groundwater levels. This can affect the amount of water available for agriculture and industry, as well as the health of the ecosystem. The Catfish Creek Low Water Response Program coordinates and supports the response to low water. The program is based on the Ontario Low Water Response Program[10]. The Ontario Low Water Response program funded the Catfish Creek Low Water Response Team which was active from 2015 – 2018 communicating extensively through e-mails with government agencies, municipal and team members regarding low water conditions within the watershed. Being in a small rural watershed located in the

[6] https://www.ontario.ca/page/permits-take-water
[7] https://www.ontario.ca/laws/statute/90o40
[8] https://www.ontario.ca/laws/regulation/040387
[9] https://www.catfishcreek.ca/about-us/publications/
[10] https://www.ontario.ca/page/surface-water-monitoring-centre

Norfolk Sand Plain with high agricultural water takings, staff have found that one on one contact with the farming community is the best and most effective way to communicate the Ontario Low Water Response Program.

Member municipalities have their own water conservation programs that run parallel to the Low Water Response Program. Even those water users who are not required to have permits are also urged to conserve water in low water conditions.

Table 5: Water Quality and Quantity Information for Springwater Reservoir

Measure	**Value**
Size of Reservoir	5.7 Ha (14 acres)
Main Water Source	Bradley Creek and Bradley Creek Tributaries
Average Bradley Creek Discharge into Reservoir in July	1.5-3 Cubic Ft / Second
Average Bradley Creek Discharge into Reservoir in August	2-4 Cubic Ft / Second
Reservoir Depth in 2019	4.2 Meters at West End, .6 m at East End
Secchi Disk Depth	.6 - .9 meters
Average Summer Temperature	23 degrees Celsius
PH	8-8.5
Suspended Solids	20Mg/L
Dissolved Oxygen	8.5 ppm
Number of Beach Closures due to E-Coli in 2019	Zero (0)

As mentioned previously, there are over a dozen water control structures (e.g. dams, weirs) upstream of the Reservoir on Bradley Creek and its tributaries. During the hot summer months, little water enters the Reservoir from Bradley Creek, and most of the water comes from springs on the tributaries feeding directly into the pond. As a result, the flushing rate of the Reservoir is very poor and the pond is in stagnant condition in the summer months. This is harmful for several reasons including:

1. It creates poor fish and wildlife habitat;
2. It reduces the water quality and aesthetic appeal;
3. Water based recreational activities are threatened.

As a result of these concerns, CCCA commissioned the Springwater Reservoir Rehabilitation Study in 1981. The study was completed in 3 phases. The Phase 1 report was titled *A Review and Evaluation of Existing Information and Determination of Additional Information Needs*[11]. The purpose of the first phase was to review what new hydraulic information was required for the subsequent phases. The phase 2 report was titled *A Review of the Problems and Identification of their Probable Causes*[12]. The purpose of this report was diagnosing and reporting on potential short and long term solutions. The Phase 3 report was called *Summary of Problems and Investigation or Remedial Measures*[13]. This report identified a number of pollution sources and related water quality impacts, and identified remedial measures to deal with each.

[11] Ecologistics Limited, September 28, 1981. Phase 1 Report: A Review and Evaluation of Existing Information and Determination of Additional Information Needs

[12] Ecologistics Limited, December 1982. Phase 2 Report: A Review of the Problems and Identification of their Probable Causes

[13] Ecologistics Limited, November 1985. Summary of Problems and Investigation or Remedial Measures

The primary use of the Springwater Reservoir is to provide a multi-use recreational facility for visitors to the Conservation Area. Other benefits include flood and erosion control, fish and wildlife habitat, and supply of groundwater to neighboring wells. The Springwater Reservoir Rehabilitation Study provided a number of ideas for maintaining the reservoir. In particular, the pond aerator installed in the 1990's is used to minimize phosphorous loading, bacterial contamination and algae formation around the dam.

As seen in Map 6, the majority of the land surrounding the forest is well drained sandy material. However, another large proportion of the property is poorly drained (e.g. Jaffa, muck/peat areas) and associated with the wetland depressions identified earlier in the Plan. The poor draining soils is beneficial in many ways to the broader watershed health such as providing a source of water to Catfish Creek and surrounding landowners. Consequently, efforts to modify the drainage network in the Springwater Conservation Area to any great extent are unnecessary and should be avoided.

Overview of Vegetation

Springwater is recognized by naturalists across the province due to its Carolinian vegetation components. The Springwater Forest and Jaffa Tract are considered some of the best examples of maple, beech and oak upland forest in Southwestern Ontario.

Springwater Forest and Jaffa Tract were subject to major logging operations until the turn of the century, incremental harvesting between 1900 and 1950, and more recently were disturbed by the clear-cutting of two 2 hectare blocks in partnership with the Ministry of Natural Resources and Forestry in 1979. More recently, red and white pine have been planted in the northwest and north-central parts of the Springwater Forest, while younger trees occur in the Jaffa Tract portion. An arboretum in the day use area consists of a large variety of Carolinian species such as chestnuts.

In 1981, a detailed research study of the vegetation communities was conduced by Ian MacDonald of the Ministry of Natural Resources. [14] The report identifies 631 species of vascular plants from 104 families (507 native and 124 introduced species). The Springwater Forest has a large number of species for its surface area since the forest is relatively undisturbed and has a number of micro-environments within it. The number of species is also supplemented by various local disturbance phases (e.g. camping, day use, arboretum sections).

There are 139 species (over 20% of the total) of vascular plants which are of floristic significance such as some rare species including:

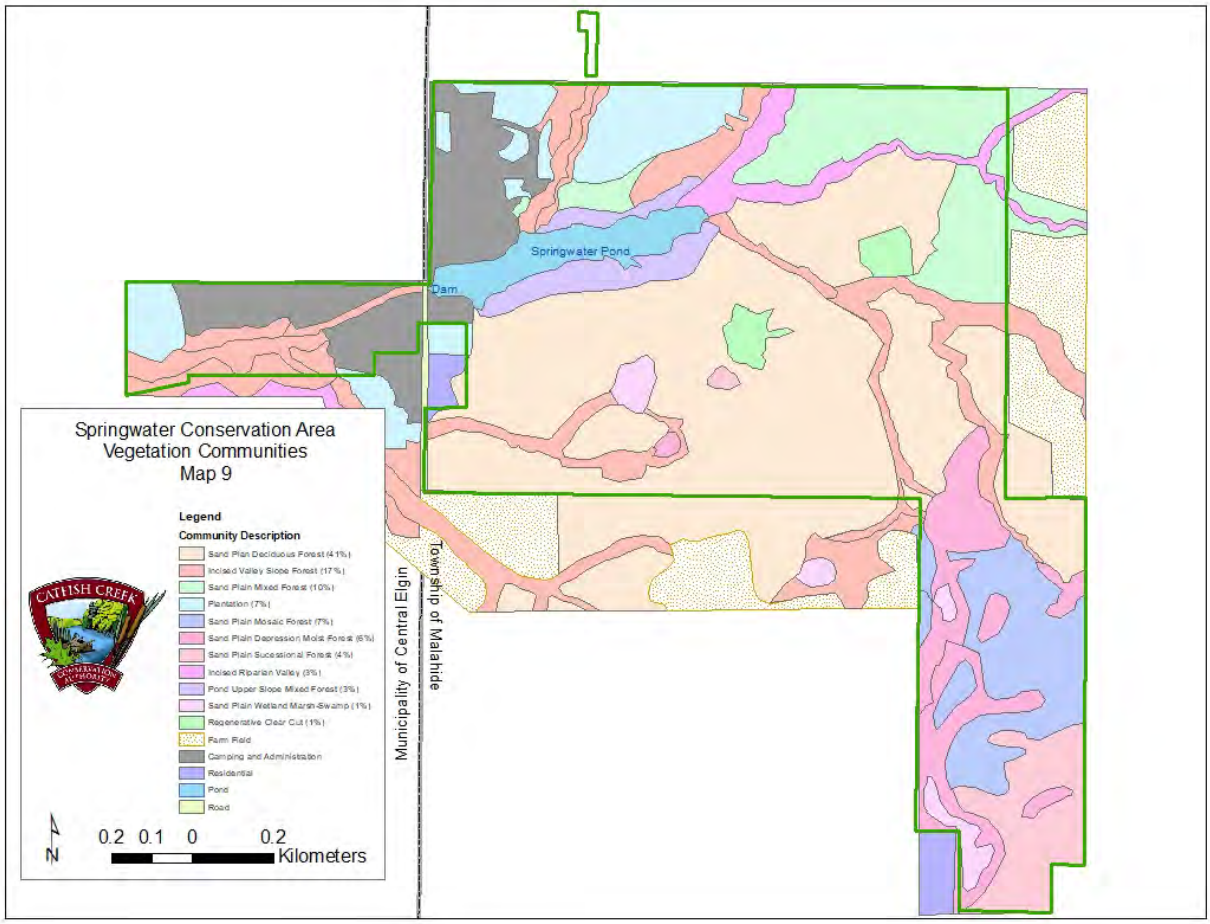
- Autumn Coral Root
- Black Gum
- Poke Milkweed
- Rough Leaf Goldenrod
- Soft Hairy Wild Rye
- Swamp White Oak

[14] MacDonald, Ian D. 1982. Springwater Study: Floristics, Community Patterns and Regeneration Transects. Ontario Ministry of Natural Resources, Aylmer District.

Other species of provincial significance include Tulip Tree (*Liriodendron tulipifera*), Black Walnut (*Junglans nigra*), Eastern Flowering Dogwood (*Cornus florida*), and Yellow Mandarin (*Disporum lanuginosum*). In total, 24 species are reported by Argus and White[15].

The MacDonald report (1982) lists 35 environmental community patterns including six types of sand plain forest, six distinct incised valley types, six different sand plain basin wetland/depressions and six forms of disturbed communities. These vegetation communities have been simplified on Map 9 where 12 types are summarized.

Figure 9: Vegetation Communities (Map 9)



Before describing the dominant vegetation communities, a brief history and regional perspective should be presented. As noted previously, logs were taken from the Springwater woods to supply numerous mills in the vicinity before the turn of the century. The heaviest tree removal probably occurred between 1860 and 1900. Only selective cutting occurred at this time. On the other hand, the Jaffa Tract was intensively cut until 1964 when CCCA purchased the land.

Two serious disturbances hit the forest between the mid 1930's and the mid 1940's. Blight hit the stands of chestnut that were once common in the forest. Fred White, landowner at the time, was

[15] Argus, G.W. and D.J. White. 1982. The Rare Vascular Plants of Ontario. Syllogeus No. 14, The National Museum of Natural Sciences. Ottawa.

forced to have all the chestnut trees removed and floated on the pond. By 1938 approximately 3000 logs were in the pond and those that did not sink to the bottom were removed the following year.

In 1964, another threat to the forest came in the form of fire. One source states that before the fire was extinguished in the north west section close to 70 acres had been destroyed.[16] This section was subsequently planted with Red and White Pine.

Since CCCA purchased Springwater in 1963 and the Jaffa Tract in 1964, several forest disturbances have been recorded as follows:

Table 6: List of Forest Disturbances

Year	Disturbance
1963	0.4 Hectare plot just northeast of the sand plain basin was clear cut
1979	A salvage cut was made following a severe ice storm
1979	Two experimental 2 hectare plots were clear cut and planted
2005-06	400 trees removed due to Emerald Ash Borer
2020	As a result of Beech Disease, 300 Hazard Mature Beech trees were removed

To fully understand the nature of the vascular plant flora in Springwater requires an examination of the regional perspective. MacDonald indicates that the predominant affinity of the vegetation is toward the southern life zones[17]. More specifically, this area lies within the deciduous forest region where common tree species include Sugar Maple, Beech, White Elm, Basswood, Ash, White Oak and Butternut.

Additionally, the Carolinian Floristic Zone has its northern limit within the deciduous forest region. Species confined to this zone include Tulip Trees, Sassafras, Pawpaw, Black Gum, Black Oak and Red Mulberry. A total of sixty-six species of vascular plants are restricted to the Carolinian zone and an additional 25 species also characterize the zone but have isolated occurrences elsewhere in Southern Ontario. Many of the species occur in the Springwater area.

Springwater also presents several examples of species within western, eastern, and northern or even boreal affinities. The northern or boreal species in the Springwater area are associated with the cooler, most sites of shaded valleys and wetlands, or with dry, acidic pine forest locations. Non-native species have also entered the area by various means. Several examples are found here, some thriving and others not. Examples of invasive species include:

Table 7: Examples of invasive species found in Springwater Park

Species	Latin Name	Year First Observed
Emerald Ash Borer	*Agrilus planipennis*	2002
Elm Bark Beetle	*Ophiostoma ulmi*	2005
Phragmites (Reed Canary Grass)	*Phragmites australis*	2009
Garlic Mustard	*Alliaria petiolata*	2009
Purple Loosestrife	*Lythrum salicaria*	2009
Autumn Olive	*Elaeagnus umbelleta*	2009
Canada Thistle	*Cirsium arvense*	2009
Rusty Crayfish	*Orconectes rusticus*	2009
Beech Scale Insect	*Cryptococcus fagisuga*	2015

[16] McKenna, Ward. The Whites of Springwater. Aylmer Express, Aylmer, January 6, 1981
[17] MacDonald, I.D., op. cit., p.17

Dominant Vegetation Communities

The dominant vegetation community descriptions including the percentage of the Park covered are represented in Map 9 above, and further described as follows:

Sand plain deciduous forest (41% of forest)

Sand plain deciduous forest is the largest component of the Springwater forest. The most common species are extremely Hard Maple and American Beech. The large proportion of beech is due primarily to past selective cutting of the maple and oak trees. Human impact has certainly altered this area of the forest but the size of the individual trees combined with the vast acreages covered make these woods significant. Other subdominant tree species located in this portion of the forest include Red Oak, White Ash, White Oak, Red Maple and Yellow Birch. Commonly occurring shrub and herb species include Ironwood, Arrowood, Eastern Flowering Dogwood and American Sweet Chestnut. Ground cover includes such significant species as Wood's Sedge, Downy Rattlesnake Plantation and Yellow Mandarin. 171 species have been recorded from this section. More naturally occurring openings in the canopy through tree fall could further diversify the species compliment.

Incised valley forest (17% of forest)

A relatively common type of vegetation community is the incised valley forest. Several species occurring in the sand plain forest are also recorded here including Yellow Birch, Sugar Maple, Red Oak and American Basswood. However, other characteristics and significant species distinguish this community including Bladdernut, Green Violet, Wild Yam, Horsebalm and Silvery Glade Fern. At least 125 vascular plant species exist in this vegetation type.

Sand plain mixed forest (10% of forest)

Another dominant vegetation community is the sand plain mixed forest occurring in the northern and eastern parts of the Springwater Forest. This area is dominated by Red Oak, Red Maple and White Pine with subdominants including Sugar Maple White Oak, American Beech and Sassafras. Significant plant types include Yellow Panic Grass, Carrion Flower, Autumn Coral Root, Pinesap and variegated forms of White Trilliums.

Plantation (7% of forest)

The human influence on Springwater is also represented by the substantial sand plain coniferous plantation between the pond and the northern boundary. It was in this area in 1964 that fire destroyed approximately 70 acres of woods. Plantations had already been partially developed prior to the fire but after this major disturbance had occurred, Red Pine, White Pine and Scots Pine were planted.

Sand plain mosaic forest (7% of forest)

A sand plain mosaic forest occurs in the Jaffa Tract on irregularly rolling low sand ridges where a higher water table results in moist soils. This section, frequently cut over until 1964 when the CCCA purchased the land has a younger canopy consisting of Sugar Maple, American Beech, White Ash, Yellow Birch, Shagbark Hickory, and Red Oak. Other interesting and significant species including Northern Maidenhair Fern, Tulip-tree, Wild Ginger, Round Leaf Hepatica, Christmas Fern and Showy Orchid.

Sand plain depression moist forest (6% of forest)

A sand plain depression moist forest is also identified in the Springwater area. MacDonald has further subdivided this category into classes such as spring/summer swamp forest, perennial scrubby, swamp forest and wetland/swamp depression backshore fringe[18]. This type of vegetation community is generally confined to the southwestern part of Springwater Forest as well as the Jaffa Tract. The frequently occurring tree species are Silver Maple, Red Maple, Yellow Birch, Red Ash, White Elm, Swamp White Oak and Black Ash. Interesting plant types include Goldthread, Christmas Fern, Skunk Cabbage, Red Trillium, Spice Bush, False Nettle and Nannyberry.

Sand plain successional forest (4% of forest)

The sand plain successional forest is confined to the southern half of the Jaffa Tract, although the clear cut areas may develop in a similar manner. The dominant tree species are Sugar Maple, American Beech, White Ash, Red Oak and some Trembling Aspen. The poorly developed community structure has Riverbank Grape, Wild Cucumber and Wild Garlic Mustard as typical ground cover species.

Incised riparian valley (3% of forest)

The incised riparian valley scrubland/meadowland is found in the broad valley portions of the three main eastern tributaries. Several sedge species such as Red Osier, Dogwood, Canada Blue Joint and Pussy Willow frequent this area. Also present is the rare southern species, Rough Leaf Goldenrod and the provincially significant River Bank Wild Rye.

Pond Upper slope mixed forest (3% of forest)

On each side of the Pond is found a distinct vegetation community known as Pond Upper Slope Mixed Forest. There has been some disturbance in this area (i.e. exposed tree roots) due to trail networks used by fishermen and hikers. Common tree species are White Pine, Red Oak, Sugar Maple and American Beech. Some of the significant plants found here are Wild Pansy, Wood Betony and the provincially rare Low Blueberry. Also in the understorey are Hawthorn, Eastern Flowering Dogwood and Bottle Gentian.

Sand Plain wetland marsh-swamp (1% of forest)

Sand Plain wetland marsh-swamp exists in several depressed areas of the property. Perhaps the central wetland, found about 215 meters south of the pond, should be treated as a separate unit but similarities in drainage, soil composition and some vascular plant species (i.e. Pussy Willow, Yellow Birch, Highbush Blueberry, and Northern Bugelwood) help to justify including it with other wetlands in the forest. One distinct difference is that the amount of canopy cover in the central basin wetland is minimal while other wetlands have more tree growth.

Regenerative clear cut (1% of forest)

Although it is an area which has experienced substantial human disturbance, the regenerative clear cut deciduous forest presents an interesting collection of vascular plant species. A management decision to clear cut two, 2 hectare plots in 1979 left openings in the sand plain deciduous forest. Since that time, 115 species have been recorded as members of a new vegetative community. Dominant species include Brambles, Red Elderberry, American Beech, Sugar Maple, White Ash, Red Oak. American Sweet Chestnut saplings have also been observed here. MacDonald also noted that some species were

[18] Ibid,. p.87

discovered in this section that had not been identified previously in Elgin County including False Melic Grass, Nodding Mountain Rice, Soft Hairy Wild Rye and Climbing Honeysuckle.

Fauna

The Springwater area is one of the most significant natural environments for flora in the Catfish Creek watershed. In fact, Springwater is possibly one of the more valuable tracts of land in the entire Southwest Ontario region for bird habitats. As the diversity of vegetative communities suggests, this property provides several disparate habitats, particularly for birds and other wildlife.

Over the years there have been several changes to the fish and wildlife populations in Springwater. For example, the ornithological composition has changed with some the quality of bird habitat in some cases deteriorated, while in some cases habitat has improved. Broomans "Birds of Elgin County" suggests that some species may have been more frequently observed in the past.[19]. The rare Hooded Warbler was probably most common in the 1940's when it was first recorded and Great Blue Herons were possible more common in the 1940's and 1950's as well. The number and variety of waterfowl species is reduced today too.

Records indicate that mammals such as Beaver, Badger, and Muskrat are far less frequent today than they were in the 50's[20]. The quality of fish species in the streams and pond in Springwater has also deteriorated primarily due to poor habitat. A fish habitat structure (fish crib) was installed off the West end of the Beach in 2007, however additional action such as dredging can maintain or improve the diversity of habitats in Springwater Pond.

Springwater Forest, because it is one of the largest, most mature upland stands in the province, provides a special habitat for several bird species. Although surveys conducted in the area have found that bird numbers are not necessarily high, the quality of species is excellent. For example, this tract is the first recorded (1941) nesting site for the Hooded Warbler in Canada. Another rare and unusual species is the Pileated Woodpecker which requires at least 40 hectares of forest with numerous dead trees for its habitat. This species is so common that it forms the basis of the Springwater logo.

Figure 10: Springwater Logo

Other species are rare in the province but observed in this area are the Sharp-shinned Hawk, Barred Owl and Le Conte's Sparrow. In addition to these rare birds, some interesting species observed include Red Eyed Vireo, Wood Thrush, Scarlet Tanager, Rose-breasted Grosbeak, Indigo Bunting, Great Horned Owl and Turkey Vulture.

[19] Brooman, R.C., 1954. The Birds of Elgin County. St Thomas, Ontario
[20] Stewart, W.G. 1982. Mammals of Elgin County Ontario. St Thomas, Ontario. P.15

The species found will vary depending on where the observer is situated. For examples, species such as the Pine Warbler, Winter Wren and Ruffed Grouse are found regularly within the White Pine stand of the northeast corner of the property. Fish eating birds such as the Belted Kingfisher, Green Heron and Great Blue Heron use the reservoir and Bradley Creek as a feeding area. Great Blue Herons were first spotted in 1982 with frequent sightings to the present day.

Common Loons were once regular migrants appearing in the reservoir but the number of recorded sightings has diminished in recent years. Since the spring of 1982, two or three loons have been observed for a period of one or two weeks. Since then, no records of loon sightings exist including no observations in 2019.

Waterfowl use of Springwater has changed during the past fifty years. Hunting used to be allowed on the pond and around 1960 on the opening day of the season some 50-100 Mallards, Black Ducks, Wood Ducks and Mergansers would be expected. Since that time, hunting has been banned and Mallards and Mergansers make up the most prominent species observed. The reservoir had only a small resident population at that time but it is primarily used as a stopover for migrating species because there are a number of areas where waterfowl can congregate.

Today, the reservoir receives seasonal waterfowl use in the Spring and Fall for migration purposes with 437 Canada geese counted on the beach and pond on October 6 2020, and 347 geese counted on November 4, 2020 and 417 geese counted on November 12, 2020[21]. Very few birds call Springwater Pond home because there are other ponds nearby and perhaps the quality of the habitat has diminished, although a brood of Ducks was observed in the summer of 2019. A brood of Canada Geese was recently reared on the reservoir and continue to inhabit the area but otherwise waterfowl numbers are relatively low. Within Elgin County, the Wood Duck seems to have increased in numbers considerably. Recorded sightings of Wood Ducks on the Reservoir, in the water-filled depressions of the forest, and the adjacent White's Pond are numerous, but declining water quality in recent years may be eliminating appropriate habitat for this species.

A complete list of all bird species reported for Springwater graciously provided by Bird Studies Canada is attached as Appendix A.

Again because of habitat diversity, a variety of mammal species reside in, or migrate through the Springwater area. Although complete and updated records are not kept, several mammals have been reported. Common residents include Eastern Chipmunk, Striped Skink, Eastern Gray Squirrel (Black Squirrel), Red Squirrel, Eastern Cottontail, Racoon, Woodchuck, and White-tailed Deer.

Racoon populations in the park peaked in 2018 with several daily sightings and negative human-wildlife interactions documented, in particular within the seasonal area of the Campground. Distemper and Rabies within the racoon populations are on the increase in Ontario, in particular in this area as outlined by MNRF[22]. CCCA in partnership with the Aylmer District Trappers Council (ADTC), began a wildlife management pilot to manage the wildlife population within the park. Monitoring observations and subsequent management activities occurred along the wooded stretches of Bradley Creek drainage system by the waste facility where the racoons were observed residing and travelling.

[21] Counted by East Elgin Secondary School Co-Op placement staff
[22] MNRF Rabies Unit Distribution Map, https://www.ontario.ca/page/rabies

As with other parts of Ontario, the deer population in the Springwater area is constantly changing. The size of the forested tract is certainly large enough to support a resident heard, but the mature nature of the trees makes it more difficult to find adequate food supply. This remains true today in the formerly clear cut areas where the vegetation has matured making it less desirable for deer and wintering. In recent winters, groups of 5-6 deer, some not fully mature, have been sighted cutting across the day-use area between the forest edge and the pine plantations. An additional crossing area is south of the Administration office on Springwater Road. It appears as though the deer are migrating along the wooded stretches of Bradley Creek drainage system.

Although not as common as other mammals, Red Fox, Muskrat, Badger, species of Shrew and Mole, Bats, Mice, Coyote, Long Tail Weasel, Possum, and Mink might occasionally be seen. Unfortunately, the Beaver, once a popular resident of Springwater, no longer has an appropriate habitat here.

The Eastern Flying Squirrel has been observed in the forest in the past, however as it is nocturnal is rarely seen. This species inhabits Carolinian forest zone where they favour beech-maple stands. Mature woodlots with sufficient number of dead or hollow trees are ideal habitat.

The character of the fish population in the Reservoir and along Bradley Creek has experienced dramatic change over the past 100 years. Fish surveys indicate the presence of Largemouth Bass, Carp, White Sucker, Bluegill, Brown Bullhead and Pumpkinseed. Park visitors report catching Largemouth Bass, Yellow Perch, Bluegill and Pumpkinseed. Stocking of the pond has occurred since 1987 when regular stocking of Rainbow Trout at a rate of 450 fish per year up to 750 in the months of April and May through the late 1990's. Since 2003, stocking has occurred each year with approximately 1000 Rainbow Trout stocked for the Tim Hortons Kids Fishing Derby.

In 1981 and 1982 the stop logs were removed from the Springwater Dam for inspection and repair work. When the water was at is lowest point observations of fish could be made. The most obvious species at the time was Carp, averaging over 50 centimeters in length. The previous Springwater Management Plan indicated the drawdown activity had a detrimental effect on the quality of fish habitat and species quantities in Springwater Reservoir. The Pond was once again lowered in 2013 to perform routine maintenance on the dam, clearing of sediment, and installation of the fish crib.

Examining historical excerpts gives an indication of how the quality of fish habitat has diminished considerably since the early days of settlement. Around the mid 1870's, the streams and creeks were suitable for trout. Between 1885 and 1905 the Springwater Trout Reserve produced trout in the ponds found north of the reservoir. As lands adjacent to Bradley Creek and its tributaries became cleared for agricultural use, as riparian vegetation was removed and as storm water discharges from Aylmer increased, water temperatures rose, nutrient levels increased and sediment loads rose. Conditions necessary for trout and other sport fish were eliminated and "less desirable" species began to dominate.

Along with high water temperatures, the most important factor involved in reduced fisheries quality is large sediment loads containing high nutrient levels. In Springwater Reservoir, particularly at the Eastern end, thick deposits of silt have been laid down. Most of the more desirable warm water fish species require harder substrates to spawn on and as a result, the quality fish species once common in this area have virtually disappeared.

There are a number of reptiles, amphibians and decapods that depend on the natural characteristics of Springwater to survive. Painted and Snapping Turtles live in the reservoir and in some of the permanent wet portions of the forest. Green Frogs, Bullfrogs, Leopard Frogs, Wood Frogs, Spring Peepers and American Toads also breed in or near the reservoir or the marsh. Other reptiles and amphibians that have been observed in Springwater include Eastern Garter Snake, Milk Snake, Green Snake, Newts and various Salamander species. Another species observed in large numbers when the reservoir was drawn down include Crayfish, noted close to the edge of the pond near the dam.

Sensitive Areas and Hazard Lands

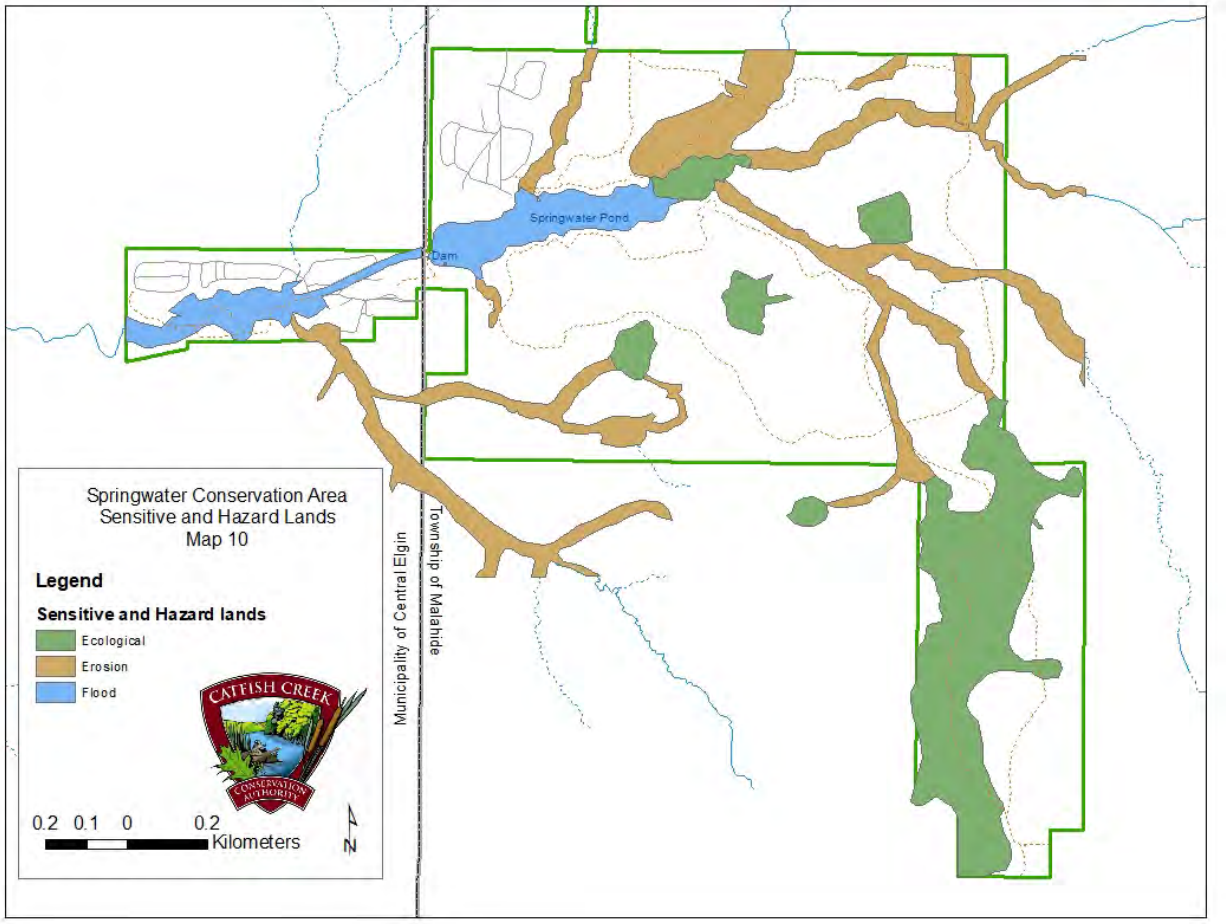
There are several sections of Springwater that are relatively sensitive to any kind of disturbance – human or otherwise. Fortunately, some of the most sensitive areas are generally inaccessible because of distances from the trails, excessive water and unstable soils. In many cases, several factors combine to make a specific area particularly fragile.

As shown in Map 10, there are three types of Sensitive Areas and Hazard Lands including:

1. **Steep slopes**. The steep slopes are basically confined to the incised stream valleys while the poorly drained mucks and silts are found in depressions south and southeast of the reservoir. The valleys are subject to erosion from human use.
2. **Mucky soil** (even quick sand). These areas are the incised riparian valley scrubland / meadow communities of Bradley Creek upstream from the Reservoir including the east and south-east branches of Bradley Creek and the marsh/swamp areas.
3. **Periodic flooding**. Low lying meander scars downstream from the dam are regularly flooded during spring runoff.

Elements combining to make these areas sensitive include a high frequency of significant vascular plant species, soft, mucky soil and valley slopes susceptible to erosion initiated by trampling or some other ground disturbance.

Figure 11: Sensitive Areas and Hazard Lands (Map 10)



Cultural Resources

Historic Features

European explorers first appeared in this part of the province in the late 1660's when Galinee Pere Charlevois and Dollier de Cassons travelled up many of the rivers emptying into Lake Erie. Because of the abundance of Catfish in this particular watershed, these voyageurs named the stream "la Riviere a la Barbue" (Catfish River). Prior to this European intrusion, Neutral and Iroquois tribes occupied the land at different times.

The earliest settlers on the land straddling from Yarmouth and Malahide came from New York State. One of the earliest landowners in the vicinity of Springwater was E.S. Ganson, who sold his Springwater property along with a grist mill to Ira White. The rest of the history of Springwater prior to purchase of the land by the CCCA is basically an account of the White family in this area.

The first White's who settled in North America were direct descendants of William and Susanna White who came over on the Mayflower in 1620. These White's settled in New York State, some later moving to the southern Ontario area. Ira White, at one time a captain in the U.S. Army, and later a mill wright, was lured to the Preston Hesepler area and afterwards to Markham Township where he built each of his five children a mill. Ira's first wife Elizabeth passed away in 1852 and the following year he was

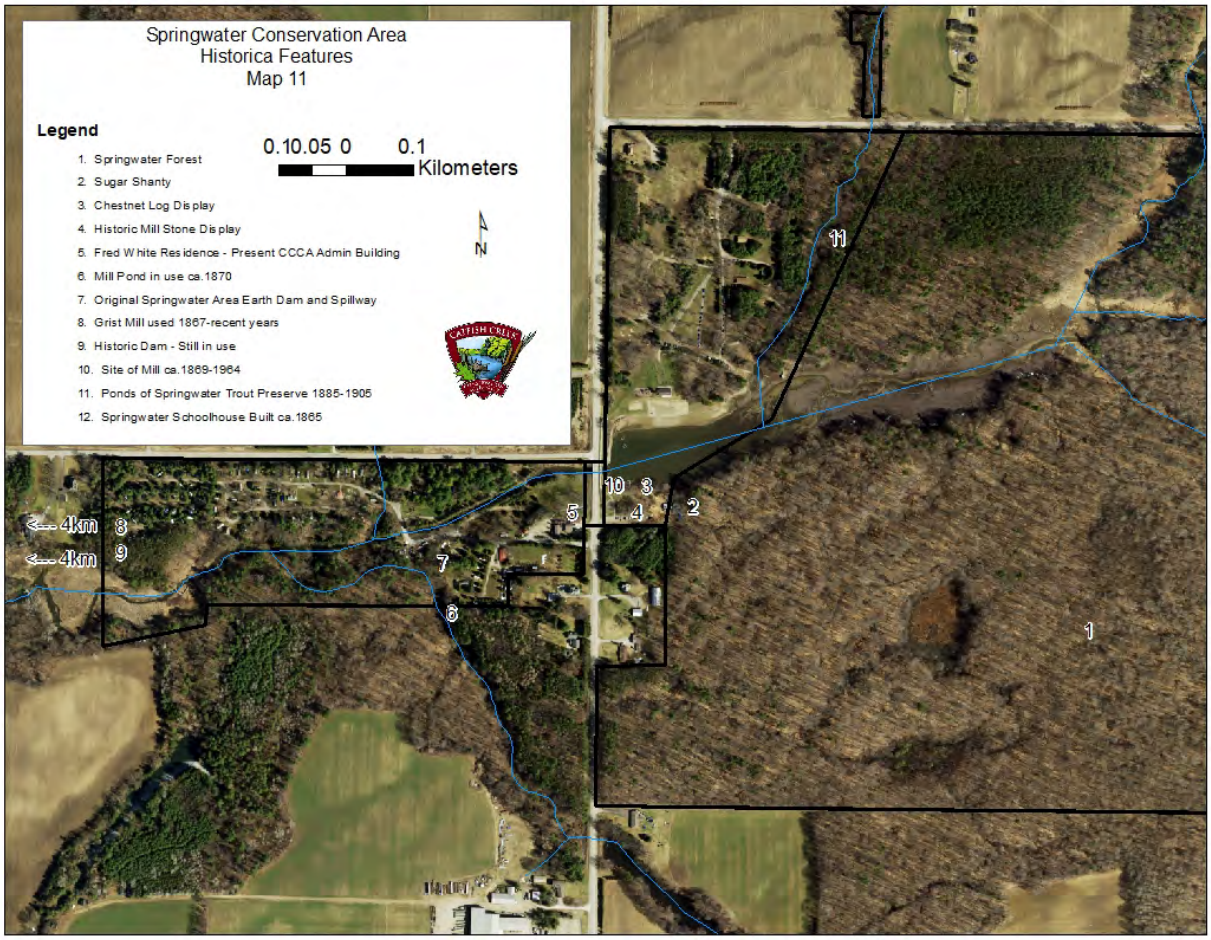
remarried. With his second wife and two of five children, Ira soon moved on to Elgin County and settled on the land which now includes Springwater Conservation Area.

It was in 1860 that Ira and his son Albert purchased a large block of pine timber and a grist mill from E.S. Ganson. Additional land was sold by Charles Lawrence to the White's shortly thereafter. Prior to the development of mills on Bradley Creek at this location, Springwater was described by an anonymous person in the following way:

> *The central part of the township near the Yarmouth line contains yet (as of 1876) a valuable tract of pine timber nearly all owned by Albert White Esquire. This locality, before saw mills were built, was the paradise of the hunter and trout fisher. Crystal springs gush from the hillsides and form clear purling streams that wind through romantic ravines westward to join the Catfish. All these literally swarmed with fine trout, but the sawdust, and the warming of the water by cutting away the forests and decimation of the angler's hook have made them few and far between.*

The White family built their first grist mill on "White's Pond" just west of the conservation area in 1867 to 1868. This five-story structure was operational for many years. Spring-fed "Springwater Creek" was dammed up by the White's just south of the campground wood hut to supply water power for the mill. This earthen dam, 61 metres long and 7.3 metres high, was hand built by a small army of workers and can still be seen today. Refer to Map 11 for the locations of these features.

Figure 12: Historic Features (Map 11)



Another grist mill and saw mill was built in 1870 on the Springwater Pond. The original grist mill burned down about 1905 and was replaced by a cement and concrete block building. The new building was used as a chopping mill until the mid 1920's then practically abandoned. It was finally torn down in 1965 by the CCCA, because it was unsafe and too costly to repair.

When Ira Allen White died in 1887, his son, Albert, inherited all of his father's holdings at Springwater. It was Albert who had the idea of raising fish on the pond created by the 61-meter earth dam. After a few years of successful propagation, the trout became very tame, apparently to the extent the fish could easily be caught by hand. When this tameness became known to others, poaching became a problem and more aggressive bass species had to be stocked. Bass can still be seen in this pond today. The raising of trout became a commercial operation with new ponds installed north of the present day reservoir. The Springwater Trout Reserve was operated by Albert between 1885-1905, with fish being sold to the government for stocking northern streams.

When Albert passed away in 1917, his six sons shared in his distribution of property which totalled at the time more than 526 hectares of land. One of the sons, Frederick David White (born April 28, 1875) inherited the two mills and the forest adjacent to the Springwater Pond.

Fred gained a reputation for his efforts to preserve "White's Bush" and to protect the wildlife living within the boundaries of Springwater. Fred was indeed a naturalist, always on the lookout for would-be hunters and poachers. He was more than willing to talk to visitors interested in learning more about the flora and fauna of the area.

One interesting thing that Fred will always be remembered for was his ability to lure beavers from Springwater Pond by ringing an old school bell. Once the beavers approached, Mr. White made sure he had pieces of cut-up apple or small tree branches for them to nibble on.

Late in life, Fred White, tried to sell the Springwater property to any group that would continue its preservation. Unfortunately, it was not until 1963, one year after his death, that the CCCA purchased Springwater Pond and the surrounding forest for $123,500.00.

One of the conditions of the land sale was that the property was "to be preserved in the accepted conservation manner" and that "none of the lands are to be disposed of or leased in any way to private interests." A second condition was that the name Springwater be retained. Both these requests have been met.

Archaeological Features

Located within the boundaries of the Springwater property is at least one verified archaeological site. The specific location is known by some, although this information should not be given to the general public.

The site has been identified as the "Downpour Site" and through the years many unauthorized "digs" have been done. Some local area residents have rather large collections of artifacts, many of which probably came from this vicinity. A St. Thomas high school group did some extensive and very unprofessional work at the site years ago.

The Downpour Site is actually only in part located in Springwater while the other portion lies within an agricultural field. The open field section has been worked for at least 100 years. The full value of the site has obviously been very degraded, however, its contribution towards an understanding of Iroquoian and Haudenosaunee settlement patterns remains.

Thomas Lee originally stated that the Downpour Site was probably an early representative of the Middle Ontario Iroquois Stage (Uren sub stage). This would date the site to about 1300-1350 A.D. A 1977 document stated that the site was more likely a late representative of the Early Ontario Iroquois Stage (Glen Meyer sub-stage). This is still the understanding today as confirmed by the Aylmer-Malahide Museum& Archives in 2019. Regardless of the classification, this archaeological site reveals clues to the conditions experienced by the Iroquois cultural group over 650 years ago.[23]

Educational Features

Several elements of the Springwater area lend themselves to outdoor education and interpretive programs. Explanations on the flora, fauna, historic and hydrologic features of the property have been incorporated into the education programs to varying degrees. The CCCA and other agencies have made

[23] Special thanks to Sarah Bentley, Collections Indexer with the Aylmer-Malahide Museum& Archives for assistance with authoring this section

efforts in several different ways to inform the public about Springwater's biophysical and cultural resources.

The CCCA, for example, has recently developed a Visitor Services Program in the summer months which provides a series of organized events and games for campers, Day Use visitors, and other interested residents or groups. Activities are nature-based and include nature walks, presentations on birds, history and forest management at Springwater, and nature crafts. Additional educational programs using the education programs found within the Catfish Creek Conservation Authority's Environmental Education Guidebook are used to support the Springwater W.I.L.D (Wonder, Investigate, Learn and Discover) Rangers Summer Day Camp, Scouting and Girl Guide programs, and homeschool groups and childcare centers who come for programs.

In 2017, the CCCA received a grant from the Ministry of Tourism and Culture to implement the "Active Naturally Initiative", which was implemented in 2018 and resulted in a new contract position in 2020. In 2018 and 2019 alone, over 3500 new visitors were introduced to the Springwater Conservation Area and Forest through this initiative. Programs include "Healthy Hikes with Ranger Em", litter clean up days, fishing derbies, and presentations by local agencies.

The Jaffa Outdoor Education Center (Jaffa) is operated by the Thames Valley School Board (TVDSB) and shares a portion of the Springwater Forest for the purpose of environmental education and recreational uses. Jaffa has for many years provided opportunities for school children to learn about features of the Springwater Conservation Area and Forest. Jaffa has jointly worked with the CCCA on a range of projects and programs, that include our Maple Syrup Program and the Carolinian Forest Festival. Recent collaborations between CCCA and the Jaffa Outdoor Education Center resulted in several online educational resources and tools for use by both teachers and students. CCCA also has a strategic action to make its education programs mobile, hands on and interactive so knowledge of Springwater can be shared outside its physical boundary.

The Springwater Maple Syrup Festival is an annual education program organized jointly with the Thames Valley Board of Education. Visitors are taught the science behind how trees produce sap and then shown historical and contemporary syrup-making techniques and get the opportunity to sample the finished product.

Exhibits, displays, and trails in the woods help to present information on various elements. The information available here gives an insight into The Carolinian Life Zone and its plants, trees, birds, and other wildlife. Recreational users can also learn about the water cycle, soils, climate change, and the history and prehistory of the property. A special project in 2017, through the generous donations of the Dorothy Palmer Estate, saw new educational signage installed, and the upgrade and refreshing of educational platforms and boardwalks. The CCCA also keeps an updated "Trail Guide" which serves to familiarize forest trail users with their surroundings.

The Carolinian Forest Festival is co-hosted with Kettle Creek Conservation Authority and with other partners such as Jaffa and TVDSB, other local Conservation Authorities, and the Elgin Stewardship Council. Over 2000 students come to Springwater Conservation Area and Forest annually to learn about the Carolinian Life Zone at over 30 unique, interactive stations.

Another important partnership is the Envirothon which is a partnership between Forests Ontario, the Elgin Stewardship Council, and the Thames Valley District School Board. The topic changes annually but is always environment-related, with the Southwest Region competition taking place at Springwater Conservation Area. In 2019, the topic was agroecology, and students were asked to come up with the design of a farm that would use the benefits of various species to improve ecological health, as well as benefit the farm and its operations. Students complete four tests (topics include Wildlife, Aquatics, Forestry and Soils) and provide a presentation to a panel of judges with the winning students moving onto the Provincial Envirothon competition.

Visual Elements

Springwater presents a unique natural setting amidst a region primarily devoted to agriculture land use. Few scenes in this area can match the one provided by looking east from the dam across the reflective waters of the reservoir to the vast beyond. Looking westward from County Rd. 35 down the Bradley Creek Valley below the dam offers another picturesque view. The streams flowing through the area have cut v-shaped valleys creating a pleasant contrast with the otherwise gently rolling landscape. Walking along the trails in the forest, one is overcome by the imposing height of the mature maple, beech, oak and white pine trees and the accompanying sense of enclosure or isolation.

Vista Number	Description
1	Wide angle view overlooking White's Pond. Great blue herons are frequently observed.
2	Scenic view down Bradley Creek valley below the dam.
3	Excellent panoramic vista looking east across the pond and surrounding forest.
4	Higher Elevation offering favourable perspective of day-use area, pond and forest.
5	Observation tower at this location provides southward view of the wetland area.
6	Narrow widening spaces of the trail system defined by tall trees and accompanied by a feeling of isolation creates a closeness to nature.
7	Southwest view from concession road overlooking broad riparian valley.

Appropriate locations for the views and vistas described above can be found in Figure 7: Topography (Map 7).

Market Area Analysis

Tourism in Ontario is expected to increase by 2%[24], with some reports indicating this could be higher due to recent concerns about out of province travel. Springwater boasts over 280 seasonal sites, and 120 transient campsites and facilitated 3500-person camp nights, and 10,000 visitors in 2019. 2020 saw a further increase in transient camping, in particular throughout the weekdays, making it one of the most popular recreational destinations in the area.

Location Analysis

Springwater Conservation Area is located in the south-central part of the Catfish Creek watershed approximately ten kilometers southeast of St. Thomas and four kilometers southwest of Aylmer.

The Conservation Area is situated on good access routes to and from other parts of the province with the heavily used Highway 3 running between Windsor and Fort Erie situated only 3 kilometers to the north. From Highway 3, two north-south arteries, Highways 73 and 74 link up with Highway 401 which

[24] Ontario Tourism Outlook 2019. Ministry of Heritage, Sport Tourism and Culture Industries. http://www.mtc.gov.on.ca/en/research/business_outlook/outlook.shtml

is only 25 kilometers to the north of Springwater (Refer to Map 1). Alternatively, County Road 45, the common tourist route between St. Thomas and Long Point is only 2.5 kilometers to the south of the park.

Lying within the most heavily populated section of Canada, Springwater has a large number of potential users within a relatively short distance. For example, over 730,000 people live within a one-hour drive, over 4.2 million people within a two-hour drive, and over 11 million people within a three-hour drive to Springwater. Although only a small proportion of these people will ever visit Springwater the potential market is very large.

Participation Rates

Table 8 examines the possible number of recreational users based on participation rates for various activities found at Springwater.

Table 8: Participation rates

Activity	Participation Rate (%)*	Proportion within 20-minute drive time (75,000[25])	Proportion within 1-hour drive time (730,000)	Proportion within 2-hour drive time (4,200,000)	Proportion within 3-hour drive time (11,050,000 people)
Hiking	24	18,000	175,200	1,008,000	2,652,000
Swimming	66	49,500	481,800	2,772,000	7,293,000
Fishing	7	5,250	773,500	294,000	773,500
Camping	30	22,500	219,000	1,260,000	3,315,000
Nature Viewing	22	16,500	160,600	924,000	2,431,000
Picnicking	60	45,000	438,000	2,520,000	6,630,000

* Source: Ontario Recreational Survey

A full understanding of the participation in certain activities at Springwater requires consideration of outdoor recreation supply and demand relationships in Southern Ontario complemented by an analysis of current users of this particular CCCA property.

Supply and Demand for Recreation

The Recreational Facility Supply Study (RFSS) completed by CCCA staff in 1982[26] and updated in 2019 indicate that some of the outdoor recreation activities such as camping offered at Springwater seem to be in a satisfactory level of supply across Southern Ontario. The study indicates that facilities for beach swimming are in a slight deficit condition, picnicking opportunities are satisfactory, and the supply of trail facilities are very poor. The RFSS indicates that substantial trail supply deficits exist in Elgin, Middlesex and Oxford Counties where the majority of Springwater's visitors originate from.

However, with the unprecedented global events in 2020 and similar facilities such as provincial parks at capacity, Springwater also found itself at capacity on weekends in July and August. In addition, a shortage of full service RV campsites exists in the area and in fact throughout many parts of Canada.

[25] Population data from ESRI and Environics Analytics 2019

[26] Snowsell, M.E., and M. DeMoore. 1982. Recreation Facility Supply Study. Catfish Creek Conservation Authority, Aylmer, Ontario.

Some recent trends are developing in Southern Ontario that may influence the demand for certain outdoor recreation activities over the next few years. One obvious example is the tendency for residents to stay closer to home for recreational pursuits because of rapidly increasing transportation costs and global events. This more localized demand pressure is augmented by residents of larger population centres such as Kitchener-Waterloo, Hamilton, Halton, and Toronto faced with supply shortages in their own area and travelling to other regions for recreational activities.

Another emerging trend is that residents are searching for natural settings to engage in recreational experiences instead of more "domesticated", developed areas. Certain types of recreation are also increasing in popularity. For instance, the participation rate in paddle boarding has increased at a significant rate, while although popular, cross country skiing participation has decreased due to the lack of suitable conditions over the past number of years, with snowshoeing increasing due to the flexibility of use. As demand for certain sports changes, amenities to accommodate users should be, and is being adjusted. For example, CCCA purchased snow shoes and kayaks in 2018 through Active Naturally to capitalize on the changing recreational preferences of the user demographics.

Perhaps the strongest influence on outdoor recreation demand, however, will continue to be population changes. In our area, the population is expected to continue growing at 0.5% a year over the next 20 years with over 76,000 people within a 20-minute drive in 2025. Consequently, if facilities for certain pastimes such as swimming, camping and trail activities are not enhanced, supply deficits could be created or become worse than they presently are.

The degree of provincial government (MECP / Ontario Parks) involvement in outdoor recreation is expected to increase between 2020 and 2025 as MECP has invested heavily in the Ontario Parks system by upgrading facilities and marketing and potential for increased revenue. The CCCA made significant investments in Springwater between 1980 and 2005 through the addition of a beach, additional transient and seasonal campsites, upgraded trails, and associated support amenities (washrooms, parking, and electrical). Between 2005 and 2020, capital investments are outlined above in *Table 1 – List of Capital Development Projects since 2005*.

Similar Businesses and Cross-Promotion

One of the primary factors to consider in analysing any market area is what the "facility" has to offer relative to other similar facilities in the region. Several features of Springwater are typical features in other Conservation Areas. Camping facilities accommodate the smallest tent to the largest trailers and seasonal sites are available. Areas are designated for picnicking, swimming, fishing and boating. Hiking and nature trails in the woods are suitable for bird watchers, botanists, joggers and walkers. Outdoor education programs in various forms have been ongoing, with recent investments by member municipalities in the expansion of CCCA outdoor education programs and the addition of a day summer camp. However, all of these services or activities are quite common and needless to say there is considerable competition in this region of the province to attract day-use and overnight visitors.

Competition comes primarily from four sources – other Conservation Areas, Provincial Parks, commercial campgrounds, and private outdoor activity facilities.

Conservation Areas in this region with similar facilities include Dalewood and Lake Whittaker of the Kettle Creek Conservation Authority, Wildwood, Pittock and Fanshawe of the Upper Thames Region Conservation Authority, and Deer Creek and Backus of the Long Point Region Conservation Authority.

Despite several common characteristics, each Conservation Area listed above tries to have a distinct identify. For example, Upper Thames' Conservation Areas are bigger than most and have special facilities such as the Pioneer Village and Fanshawe. On the other hand, many of the competition listed above offers some type of interpretive program, swimming facilities and hydro and water hook-ups. Dalewood offers a swimming pool instead of a natural body of water for swimming.

Provincial Parks competing with Springwater include Long Point, Iroquois Beach, Pinery, Rondeau, Turkey Point and Ipperwash. Most of these facilities are at least twice the size of Springwater and all are maintained by Ontario Parks. The types and services provided are not unlike those found at Conservation Areas and Springwater.

Popular commercial campgrounds in this region include Sandhills Park, Duttona, Port Glasgow and Mechas Beach along Lake Erie shore, and Red Oaks between Aylmer and Tillsonburg. Commercial campgrounds are somewhat different from Conservation Areas and Provincial Parks because making a satisfactory profit is crucial to their existence – no substantial government support is available. This difference is often reflected in the variety and/or quality of services available. Examples of facilities not generally associated with the other types of campgrounds include swimming pools, tennis courts, recreation halls, camp "general stores", laundromats, 4 season hookups, and socially-orientated programs.

There are several private outdoor activity facilities in the immediate area such as the Steed and Company Lavender Farm, the Gay Lea Dairy Museum, Rush Creek Wines, Quay Du Vin Winery, Pinecroft, Clovermead Adventure Farm, Port Bruce Beach, the Aylmer Wildlife Area, and Howe's Farms.

Each presents its own opportunity to spend a few hours or longer with family or friends. Steed and Company Lavender Farm features outdoor walking with social media photo opportunities. The Vineyards provide tours in an outdoor setting with wine tasting experiences. The dairy museum is in a beautiful setting and provides trails. Clovermead provides outdoor adventure and play for children in a farm like setting. Port Bruce beach allows for exercise, dog walking and swimming. The Aylmer Wildlife Area provides wildlife viewing and another opportunity to take photographs. Pinecroft offers dining in a natural setting. Finally, Howe's Farms property borders with Springwater and they offer fresh produce and a market-like shopping experience. Each of these amenities have elements similar to Springwater, however Springwater has a number of things in common with each and every one of the private amenities. Since customers will be similar due to the nature of the attractions, cross promotion should be considered as win-win for the CA, private businesses, and local economy. A successful wagon ride event from the Springwater Forest to Howe's Farm was a huge success and future cross-promotional events should be considered in the future.

So how does the potential user decide which facility to choose? In many instances, rather than looking for similarities, a customer is looking for something special or unique about a particular park. This is where promotion becomes extremely important and the key to promotion is the ability to sell unique characteristics of the product. There is no doubt the unique characteristics about Springwater include its easy commute to St. Thomas, London or Aylmer, trails through the largest remaining tract of old growth Carolinian forest in Southern Ontario, and the chance to observe vegetation and wildlife rarely seen elsewhere in the province.

Customer Analysis

A thorough marketing study was competed in 2020 by staff using the ESRI Business Analyst software available through the Conservation Ontario Enterprise License Agreement. Location maps for each of the groups are included to assist with customer visualization. The study analyzed five different groups with the table below representing the groups, map for customer analysis, and the primary Prizm Segmentations groups.

Table 9: Summary of Customer Analysis

Group	Primary PRIZM Segment (Group)	Secondary PRIZM Segment (Group)
Seasonal Campers	Second City Retirees (26)	Wide Open Spaces (40)
Transient Campers	Lunch at Tim's (63)	Satellite Burbs (09)
People within 20 minute drive time	Lunch at Tim's (63)	Traditional Town Living (47)
People within 60 minute drive time	Lunch at Tim's (63)	Wide Open Spaces (40)
People within 120 minute drive time	Second City Retirees (26)	Lunch at Tim's (63)

Seasonal Campers

Analysis of seasonal campers identified that over 90% permanently reside in London, St. Thomas or Aylmer. A few seasonal campers come from as far away as Ottawa, however the vast majority at over 96% of campers are within a 1-hour drive time of Springwater.

As a result, marketing for seasonal camping should be focused to areas within the one-hour drive time and to the identified Prizm Segmentations below.

The Prizm Segmentation Area Profile identified a large portion of the seasonal customers as "Second City Retirees (Group 26)" who are generally older with grown children, enjoy outdoor activities such as paddling around a lake or stream in a canoe, and have an above average rate for reading flyers and newspapers.

Figure 13: Second City Retirees (Group 26)

PRIZM5 Segment Descriptions

POPULATION:
790,514
(2.13% of Canada)

HOUSEHOLDS:
310,941
(2.09% of Canada)

AVERAGE HOUSEHOLD INCOME:
$102,427

HOUSE TENURE:
Own

EDUCATION:
College/High School

OCCUPATION:
Service Sector/White Collar

CULTURAL DIVERSITY INDEX:
Low

SAMPLE SOCIAL VALUE:
Religiosity

OLDER AND MATURE, MIDDLE-INCOME HOMEOWNERS

WHO THEY ARE

Second City Retirees consists of a mix of older and mature couples, families and singles found in the suburban neighbourhoods of second-tier cities like Hamilton, Winnipeg and Windsor. Half of residents are over 55 years old and are divided between those now retired and those approaching retirement from jobs in manufacturing, education and health industries. Nearly all, however, are homeowners, aging in place in single-detached homes that were built before 1980. These households contain slightly more empty-nesting couples than those married with children—and in those family households the kids are typically older. With their high school, trade school and college educations, many of the working adults report middle incomes that allow them to get away from their emptying nests with a cruise vacation or a trip to Florida or the Caribbean. With more time on their hands to relax, they also enjoy staying at their cottages, strolling a city park or just meeting friends at a fine dining restaurant or a donut shop for coffee and conversation. Their idea of exercise is gardening, golfing and paddling around a lake or stream in a canoe.

For many Second City Retirees residents, the main focus is on their community and their aging home. They have high rates for buying energy-saving products, composting regularly and browsing the aisles at Lowe's, Home Hardware and Lee Valley Tools. They're traditionalists when it comes to media, and they listen to country music on the radio and show a strong interest in all manner of TV fare—from news and sports to history shows and classic movies. They read community newspapers and classified ads in daily newspapers and—marketers take note—they have above-average rates for reading newspaper flyers. These smart consumers join gas station rewards programs to get the most bang for their buck. While they may not be among the first to own new technology, they like logging on to Pinterest and reading their Facebook newsfeed. They buy books, magazines and music online, but in general they prefer shopping with the assistance of in-store sales associates and give a priority to local products.

HOW THEY THINK

Second City Retirees members are interested in events that are happening in their neighborhoods and may want to leave behind a positive impact that will not only support their families but will also benefit their communities (*Legacy*, *Community Involvement*). And many hold values grounded in traditional conventions, such as a desire to explore their faith through their religious affiliation and respect for those in roles of authority (*Religiosity*, *Obedience to Authority*). They are enthusiastic about the products or services they buy in their area of interest and try to incorporate ethical practices into their purchase decisions (*Consumptivity*, *Ethical Consumerism*). Work and career are vitally important for many, and as proud Canadians, they believe everyone can make it if they try hard enough (*Fulfillment Through Work*, *National Pride*, *North American Dream*).

Another group that scored high as seasonal campers were "Wide Open Spaces (Group 40)". These are generally blue collar workers who enjoy spending time outdoors, and who strongly support family values. Members in this group tend to prefer easy to use practical products regardless of aesthetics.

Figure 14: Wide Open Spaces (Group 40)

PRIZM5 Segment Descriptions

POPULATION:
776,411
(2.09% of Canada)

HOUSEHOLDS:
289,331
(1.95% of Canada)

AVERAGE HOUSEHOLD INCOME:
$97,887

HOUSE TENURE:
Own

EDUCATION:
Mixed

OCCUPATION:
Blue Collar/Primary

CULTURAL DIVERSITY INDEX:
Low

SAMPLE SOCIAL VALUE:
Cultural Assimilation

MIDDLE-AGED, MIDDLE-INCOME FARMERS AND BLUE-COLLAR WORKERS

WHO THEY ARE

Scattered across the Prairies and a handful of isolated locales, Wide Open Spaces is one of Canada's wealthiest rural segments. More than a quarter of its middle-aged couples and families work in agriculture and oil and gas extraction. With most residents living on small homesteads and leading rustic lifestyles, it is the most rural of all lifestyles. They spend much of their leisure time outside, fishing, snowmobiling, golfing and gardening—and sometimes they participate in local curling games. While they generally stay close to home—travelling to nearby campgrounds in their RV or to the homes of friends or relatives—they occasionally splurge on a trip to the Midwestern and Western U.S. Like other rural consumers, they score high for owning pickup trucks, recreational vehicles, snowmobiles and ATVs. With traditional views on politics and religion, they're strong supporters of family values and oppose government and business involvement in people's private lives.

Members of Wide Open Spaces are long-established Canadians. In addition to spending time outdoors, segment members devote a moderate amount of time indoors to watching TV, especially programs that align with their interests in history, curling, golf and CFL football. They like to have the radio on and, not surprisingly, many of these country folks score very high for new and traditional country music formats, but they also enjoy listening to religious programs. Daily newspapers are a secondary source of information, mainly turning to them for the local classifieds and real estate sections; when given the choice they prefer community papers. Although their Internet usage rates are average, they like visiting home improvement and décor websites, as well as bidding at auction sites. Many are comfortable in the online world and are average social media users who favour Pinterest and Google+, but they have not entirely abandoned their old-fashioned ways. Wide Open Spaces residents often turn to mail flyers and print coupons for discounts on products not easily available in their remote locales.

HOW THEY THINK

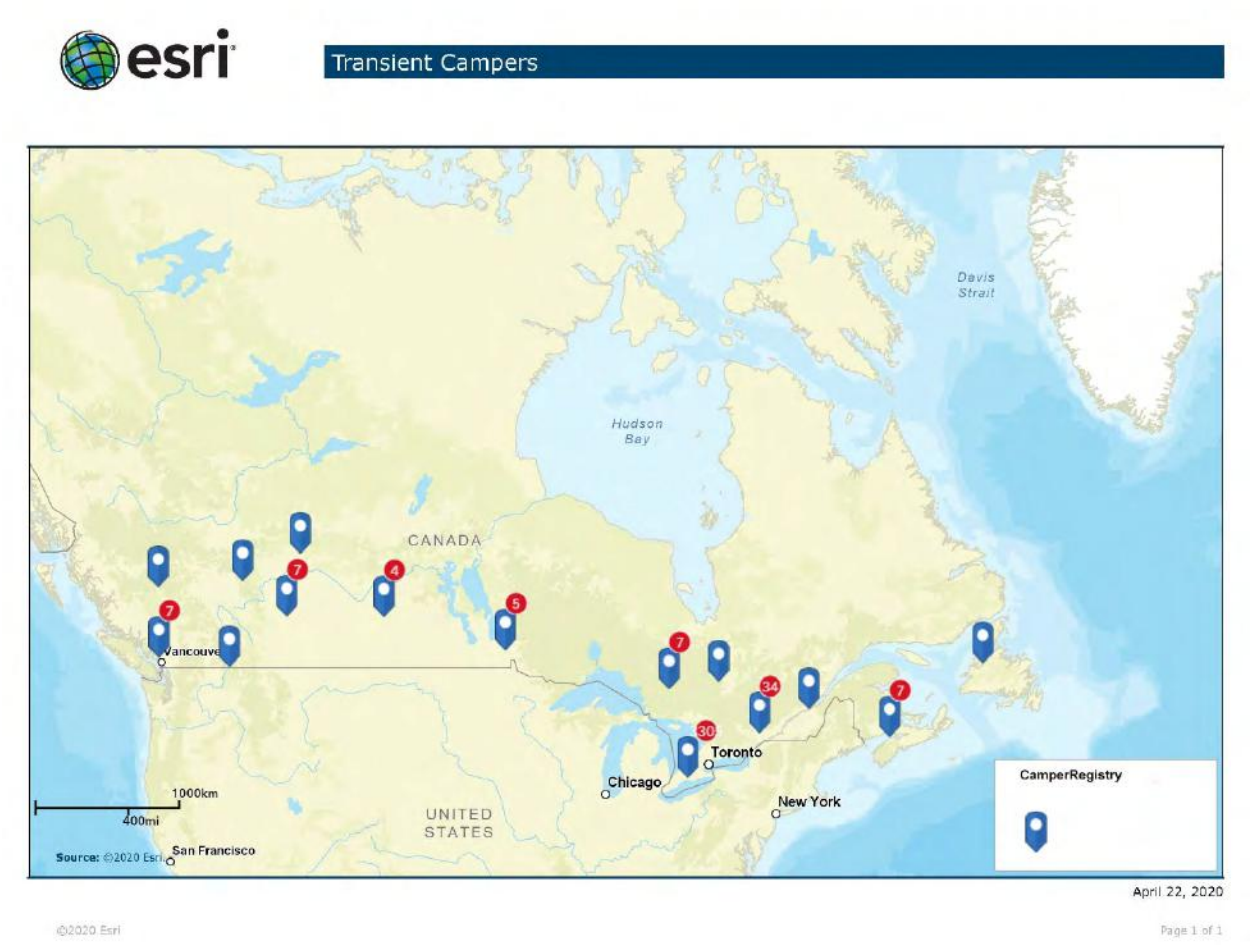
Wide Open Spaces is a strongly traditional segment: in these small, homogeneous communities, the *Traditional Family* and *Community Involvement* form an essential way of life. But they can be insular, preferring the society of small groups (*Social Intimacy*) and believing that immigrants should be encouraged to give up their customs (*Cultural Assimilation*). Many express a strong *Attraction to Nature*, but they feel that environmental destruction is somewhat acceptable and inevitable (*Ecological Fatalism*). Accepting that their rural lifestyle involves a certain degree of disorder (*Rejection of Orderliness*), they have a tendency to be guided less by their emotions, feelings and intuition than by reason and logic (*Emotional Control*). What they don't like is retail therapy. Wide Open Spaces is one of the few segments that are relatively weak on the *Joy of Consumption*, with members preferring easy-to-use, practical products regardless of their aesthetics (*Aversion to Complexity*, *Utilitarian Consumerism*).

Transient Campers

Analysis of the transient campers identified that 60% of the campers are within a 1-hour drive of Springwater. Smaller communities that make up the largest visitor's percentages include Union, Simcoe, and Sparta, with larger communities making up the largest visitor percentages including Guelph,

Cambridge and Chatham. The large percentage of transient campers from the immediate area come for family reunions, special events or in smaller groups and use the picnic pavilions. Many of the customers were also identified as return visitors, with several of them coming more than 10 times in the past.

Figure 15: Transient Campers Map (Map 12)



As a result, marketing for seasonal camping should be focused to areas within the one-hour drive time and to the identified Prizm Segmentations below.

The Prizm Segmentation Area Profile identified the primary transient customers as “Lunch at Tim’s (Group 63)”, who are generally service industry or blue collar workers and a wide range of ages. This group is difficult to sell in the marketplace and express considerable financial concern for the future and little enthusiasm for products and services. They trust small businesses like CCCA to provide quality amenities and services, but many express skepticism towards advertising.

Figure 16: Lunch at Tim's (Group 63)

PRIZM5 Segment Descriptions

Urban, lower-middle-income singles and families

POPULATION:
1,301,578
(3.51% of Canada)

HOUSEHOLDS:
550,591
(3.70% of Canada)

AVERAGE HOUSEHOLD INCOME:
$68,383

HOUSE TENURE:
Own

EDUCATION:
Mixed

OCCUPATION:
Service Sector/Blue Collar

CULTURAL DIVERSITY INDEX:
Low

SAMPLE SOCIAL VALUE:
Multiculturalism

URBAN, LOWER-MIDDLE-INCOME SINGLES AND FAMILIES

WHO THEY ARE

Located in dense, industrial neighbourhoods scattered across second-tier cities, Lunch at Tim's consists of singles, families and solo-parent households living in older single-detached homes, semis and duplexes. They're the kind of tight-knit communities where residents enjoy socializing at local eateries like Tim Hortons—as well as pizza places, burger joints and fish and chip restaurants. With an unusually mixed age profile—it's no longer the bi-modal segment of the past—Lunch at Tim's has above-average rates for residents who are single, divorced, separated or widowed; nearly half the adults in these neighbourhoods are unattached. Despite the lower-middle-incomes, roughly two-thirds of households own their homes, although most were built before 1980. Residents enjoy quieter pastimes and have high rates for knitting and woodworking as well as outdoor activities like hiking and swimming. When the mood strikes, they might play a friendly game of curling or splurge on tickets to a dinner theatre, baseball game or boat or bridal show. And many like to gamble, with regular excursions to casinos and the closer-to-home thrill of buying lottery tickets.

In the marketplace, members of Lunch at Tim's are big bargain hunters. They shop for bargains at second-hand stores, bulk food stores and discount shoe stores, and while they're not impulse shoppers, they have their favourite brands and like to look their best. Given their wide range of ages, they're interested in varied media. They like to watch sports on TV, including auto races, CFL matches and baseball games. They tune in to rock music and new country on the radio. And they pick up magazines like *Live Better*, *Canadian Geographic* and *Outdoor Canada*. Without deep pockets, most of their digital media exposure matches their frugal lifestyle, going online to send messages, watch YouTube and search for work. But they're a tough sell in the marketplace, expressing considerable financial concern regarding the future and little enthusiasm for purchasing products and services. Marketers wanting to reach this group should consider direct mail envelopes, in-store flyers and Yellow Pages ads. Many members of Lunch at Tim's express a need to escape, which typically means a domestic vacation or a stay in a campground or RV park.

HOW THEY THINK

The residents of Lunch at Tim's are tolerant of living with a certain amount of disorder in their lives (*Rejection of Orderliness*). And with their dim view of technology (*Technology Anxiety*), don't expect them to turn to their smartphones—if they even have one—to help them navigate the complex world. Scoring high on *Anomie-Aimlessness*, they feel that their lives are out of control and detached from the world. Nevertheless, they see Canada as a land of opportunity (*North American Dream*) that is open to diverse cultures (*Multiculturalism*) and accepts ethnic diversity within families (*Racial Fusion*). As consumers, these Canadians are price sensitive, careful about how they spend their money (*Discriminating Consumerism*) and expressing *Financial Concern Regarding the Future*. But ever in the *Pursuit of Originality*, they will open their wallets if they find a deal on something that underscores their individuality. They trust small businesses to produce quality products and services, but many are wary of advertising messages (*Skepticism Towards Advertising*) that might tempt them to spend more than they can afford.

Another group that scored high as transient campers were "Satellite Burbs (Group 09)" who feature a mix of middle age families and older couples living in satellite communities. Residents have a relaxed pace of life and take advantage of their location for both arts and the outdoors. This group is spontaneous but still have a strong sense of responsibility such as a healthy lifestyle. This group tends to avoid rushing purchases with spending gravitating towards respected names and well known organizations.

Figure 17: Satellite Burbs (Group 09)

PRIZM5 Segment Descriptions

Older, upscale exurban couples and families

POPULATION:
1,104,362
(2.98% of Canada)

HOUSEHOLDS:
403,672
(2.72% of Canada)

AVERAGE HOUSEHOLD INCOME:
$141,856

HOUSE TENURE:
Own

EDUCATION:
Mixed

OCCUPATION:
Mixed

CULTURAL DIVERSITY INDEX:
Low

SAMPLE SOCIAL VALUE:
Personal Control

OLDER, UPSCALE EXURBAN COUPLES AND FAMILIES

WHO THEY ARE

One of the wealthiest exurban lifestyles, Satellite Burbs features a mix of middle-aged families and older couples living in satellite communities across Canada. Many residents have settled here for the relaxed pace of outer-ring subdivisions, with their wooded tracts and spacious homes built between 1980 and 2005. Despite their mixed educational achievement—more than a quarter have university degrees, another quarter have high school diplomas—the households average impressive incomes of more than $140,000 from a wide variety of jobs. Members take advantage of their location between city centres and rural settings, enjoying both the arts and the great outdoors. Their idea of entertainment is going to a community theatre, music concert or theme park. For vacations, they're more likely than average Canadians to go camping, boating and swimming. But they're not entirely into roughing it: their exurban dream homes are outfitted with hot tubs and patio furniture, and impressive HDTVs occupy their family rooms.

Traditional in their outlook, Satellite Burbs members score high for values such as *Saving on Principle*, *Primacy of the Family* and *Religiosity*. And these older, upscale parents and couples want to preserve their nest eggs, often working with a full-service financial planner for investment advice and will and estate planning. With more than 90 percent owning their homes, they take pride in doing their own maintenance, and many spend weekends prowling the aisles of Lowe's, Home Hardware and Lee Valley Tools. Online they forego celebrity gossip for more utilitarian activities—downloading coupons, listening to podcasts and accessing real estate listings. And with an inclination to save money, they flip through the community paper to find offers or ideas for the week's meals. When they're done, they sink into a favourite easy chair to enjoy traditional media. They like watching sports on TV, listening to modern rock radio and reading hobby, home décor and business magazines.

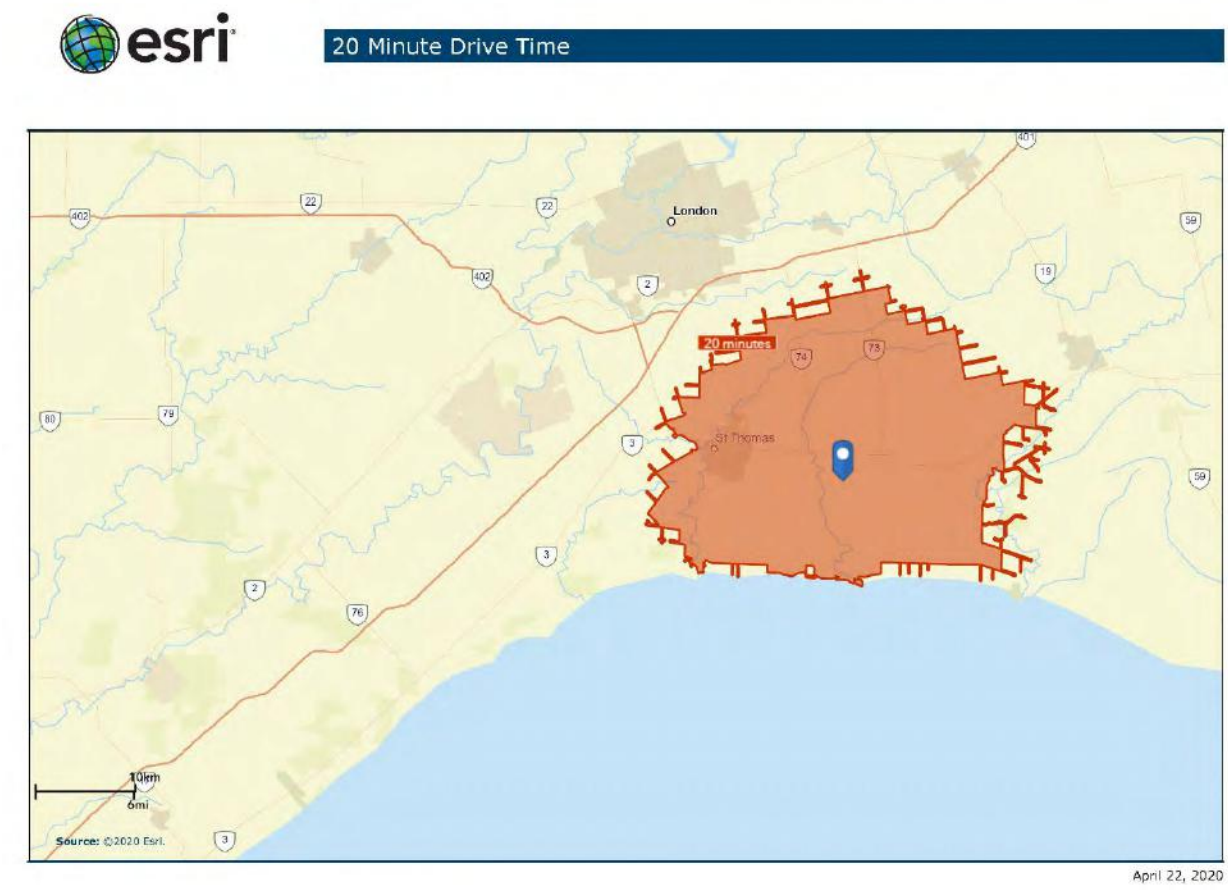
HOW THEY THINK

While members of Satellite Burbs like some spontaneity in their lives, they still have a strong sense of responsibility: their priorities include living a healthy lifestyle and looking after their families and communities (*Importance of Spontaneity*, *Effort Toward Health*, *Legacy*, *Social Responsibility*). With their *Attraction to Nature*, *Primacy of Environmental Protection* is of utmost importance to these residents. Many are active members of their religious community (*Religiosity*) and hold more *Traditional Family* values. These residents take matters into their own hands (*Personal Control*) and are comfortable with the disorder and uncertainties of modern life (*Rejection of Orderliness*). Although their bank accounts are impressive, these shoppers are *Discriminating Consumers* who avoid rushing their purchase decisions, but when they are ready to spend they tend to gravitate towards respected brand-names, backed by large, well-known organizations (*Importance of Brand*, *Confidence in Big Business*).

People within 20-minute drive time

The primary users within the 20-minute drive time have historically always been generally day users such as hikers and dog walkers as those activities continue 365 days a year. A voluntary donation of $3 is requested to offset the trail and park maintenance costs (e.g. culvert replacement, signage, surface repairs, hazard trees). Outside of the summer season, over 95% of users are from within 20 minutes away. In the summer season, the customer base changes as above with transient campers.

Figure 18: Map of People within 20-minute drive time (Map 13)



The Prizm Segmentation Area Profile identified the primary customers who travel 20 minutes to the park as "Lunch at Tim's (Group 63)" as above, however a secondary group titled "Traditional Town Living (Group 47)" was also identified as being significant and aligns with the offerings of Springwater.

"Traditional Town Living (Group 47)" folks are middle aged and older households made up couples and families who enjoy simple pleasures and low-key leisure pursuits in the great outdoors. They enjoy loyalty programs and the internet is becoming increasingly important for these Canadians, and believe in the traditional definitions of a family and look to safeguard their future and that of their children by saving money for a rainy day. Finally, making things easier and more convenient will resonate with them.

As a result, marketing for day users should be primarily focused in areas outlined in Figure 18 above, and focused on those we know wish to use the park and thus using the data identified in group 63 (Figure 16).

People within 60-minute drive time

Communities within 60-minute drive time include London, Woodstock, Tillsonburg, Simcoe, and Chatham. As identified above, a large portion of the transient and seasonal campers are within this 60-minute travel time.

PRIZM Segmentation groups that scored highest were “Lunch at Tim’s (Group 63)” and “Wide Open Spaces (Group 40)”.

Both groups are generally blue collar workers who are not consumer focused. However, a lot of the marketing in place for these particular groups is focused in London, so consideration should be made for some more broader destination focused marketing into Woodstock, Tillsonburg and Simcoe in light of the potential shift to local tourism over the coming years.

People within 120-minute drive time

Cities within 120-minute drive time include larger urban centres such as Windsor, Hamilton and Sarnia. Based on the existing users, it is clear that a small percentage of visitors come from this distance away. It is unlikely any day users come from 2-hour drive time away to recreate at Springwater. Focus in this area should be made towards overnight visitors for one or more nights. The Seasonal Campground could be a potential marketing opportunity should supply become overly available.

PRIZM Segmentation groups that scored highest for this group was “Second City Retirees (Group 26)”

The second highest group was Lunch at Tim’s (Group 63).

Public Consultation on the Master Plan

A public consultation on the draft Master Plan was undertaken for 92 Days, from December 18, 2020 to March 19, 2021. As a result of public consultation on the Plan, the CCCA received over 50 comments. The public input has been used to prioritize our management and development activities.

The majority of consultation responses were primarily from those 40-59 years of age (39%) and 20-39 years old (35%). Respondent are primarily from St. Thomas, the Town of Aylmer and the Township of Malahide. Almost all participants visit Springwater frequently for the purposes of dog walking, exercise and nature viewing. Camping scored low meaning that most of the respondents are day users rather than seasonal or transient campers.

The consultation clearly showed that Springwater is a place to seek tranquility and fresh air. Social and educational reasons for visiting Springwater scored much lower. As a result, the Master Plan maintains natural aesthetics and nature based principles for any development or new activities. Additional picnic shelters or enhanced trails are examples that support nature based development principles.

Leaving the park as is with no improvements scored very low. Meaning the public are looking for improvements. The main issue identified by the public consultation is visitor issues such as dogs off leash and litter. This is supported by staff observations. Additional dogs on leash signage will be posted, as well as additional garbage cans to ensure the park remains clean and the nature based experience is preserved for visitors. Cost was not seen as a barrier for visiting Springwater, and the public gratitude for Springwater scores very high.

For programs the public would like to see at Springwater in the future, the public survey clearly showed an interest in Day Camps. The continuing of the Maple Syrup program also scored very high meaning that enhancements to the program should be made. Grant applications will be pursued and submitted by staff to support nature based enhancements to Springwater.

The consultation provided an opportunity for the public to province input on future projects at Springwater. The number one project is an improvement in water quality. This will potentially involve water quality monitoring, dredging and additional aeration of the pond. Amenities such as a splash pad also a visitor centre also score high, with roofed accommodation and more serviced campsites scoring lower. This makes sense since a lot of the respondents were day users and not overnight campers. In 2020 100% of sites were booked for all 8 weekends in the summer meaning that additional campsite infrastructure needs to be build to support the demand. As a result, 22 additional sites were constructed in the Arboretum for the 2021 camping season.

Finally, the consultation asked the public about how best to support Springwater with the majority speaking to a season pass. Increased trail fees and a larger trail fee were also supported, with 28% of respondents indicating they would be happy to volunteer at Springwater.

Marketing Recommendations

Results of the market analysis helped to establish several conclusions about the market area served by Springwater, including the fact that most visits (seasonal, transient, and day-use) come from the St. Thomas, Aylmer and London areas. This is supported by the public consultation where 74% of respondents are within a 30 minute drive of Springwater.

Any promotional efforts should be concentrated in these population centres and use social media, print newspaper and flyers. Promotion should also be focused on the benefits of visiting Springwater instead of other parks. Outdoor recreation in a relatively unique natural setting is one advantage this park has over others. Seasonal campers can readily commute to St. Thomas, London or Aylmer while staying in the camping section through the summer. The reservoir warms up more quickly in the summer than the Great Lakes so that swimming can commence earlier in the season in this sheltered area. Trails through the largest remaining tract of old growth Carolinian forest in Southern Ontario offer the chance to observe vegetation and wildlife rarely seen elsewhere in the province. In years to come, new facilities to accommodate the needs of visitors can help to improve its appeal to those in the market area.

CCCA's 2019-2023 Strategic Plan

CCCAs strategic plan 2019 - 2023[27] responds to feedback obtained from watershed residents, stakeholders, municipal partners, and Board Members. The consultations indicated CCCA should be enhancing our opportunities for the public to connect with our natural environment, for example expanding our outdoor education programs. The public also indicated that CCCA should be ensuring good value for the taxpayer through sustainable recreational experience.

The strategic plan outlines CCCAs vision and mission which is to communicate and deliver resource management services and programs in order to achieve social and ecological harmony for the watershed.

The strategic plan also outlines CCCAs strategic priorities, many of which relate directly to Springwater and the development of this Master Plan. CCCA's strategic priorities are as follows:

1. Protect life and minimize property damage from flooding and erosion

[27] Catfish Creek Conservation Authority: 2019-2023 Strategic Plan.

2. Improve the ecological health of the Catfish Creek watershed
3. Curate an appreciation for nature
4. Ensure our conservation lands are protected and enhanced
5. Operate a sustainable and adaptable organization

Strategic Actions

The Plan describes several Goals relevant to the strategic priorities outlined above. The related Strategic Actions in the Strategic Plan provide direction for the Master Plan design and concepts and include:

1. Planned re-investments in our Conservation Areas to ensure facilities are maintained and enhanced through the development of a long range capital and operating budgets that are financially sustainable
2. Balance the environment and the economy in decisions related to conservation lands
3. Further diversify our revenue sources to increase the ratio of self-generated revenue compared with tax-supported revenue
4. Commit to deliver a financially sustainable nature/outdoor education program
5. Research and promote the history of the Springwater Conservation Area, in particular the East Campground which includes the School House, Arboretums, pond, and boardwalk
6. Enhance our social media presence to promote our facilities and events

Strategic Actions from the 1983 Springwater Master Plan are still relevant today, and relate to the recently developed/updates actions above. The actions from the 1983 plan include:

1. Undertake Forest Management within both the Agreement and Non-agreement forests.
2. To continue cooperation with Jaffa Education Centre
3. To protect Fish and Wildlife using various management techniques
4. To evaluate techniques for Bradley Creek and Springwater Reservoir rehabilitation
5. To seek co-operation from the upstream landowners to help reduce quantity of pollutants and sediment deposited in the pond
6. To provide opportunities and facilities for a variety of recreational activities providing the levels of use do not exceed the inherent carrying capacity of the resource base
7. To provide additional and improved recreational facilities depending on user survey results (e.g. survey on email confirmation, online and in person surveys)
8. To ensure facilities are “accessible” to encourage equitable access to the forest to all user groups
9. To explain the provincial significance of the conservation area and its forest in the Outdoor Education Programs
10. To examine the requirements for acquisition of adjacent properties to help achieve the goals for Springwater C.A.
11. To consider the development of an Authority interpretative building.

Site Evaluation

Resource Capabilities and Constraints

The Canada Land Inventory (CLI) data from 1995[28] provides a breakdown of the landscape in terms of capability for recreation, waterfowl production, ungulate production, forestry and agriculture.

In terms of recreation, the CLI indicates that the camping area, day-use section and part of the forest south of the pond have the "natural capability to engender and sustain moderate total annual (outdoor recreation) use based usually on dispersed activities". Land features contributing to this area include superior views, opportunities for angling and interesting water-land relationships suitable for hiking, nature study or aesthetic inspiration. The southern half of Springwater Forest and Jaffa Tract is identified as lacking the natural and significant features yet has the natural capability to support low total annual use based on dispersed activities and is suitable for viewing upland wildlife.

The same inventory (CLI) classified land in terms of capability for waterfowl production, ungulate production, forestry and agriculture. The Springwater area is classed for ungulate production with only slight limitations from poor soil fertility or soil moisture. There is a severe limitation for waterfowl production due to the poor distribution of marshes or basins. The most favourable areas, as expected, are in the vicinity of the reservoir, Bradley Creek, and its tributaries.

For agriculture, most of the property, except of the southeast part of the forest, has severe limitations restricting the range of crops, requiring special conservation practices, or both. Inherent limiting factors of this land are again low soil fertility and low moisture holding capacity. The southeast portion of the study area exhibits very severe limitations restricting the capability to produce crops primarily due to poor drainage.

For forest production, Springwater Forest is generally classified with only minimal limitations to timber growth in some cases. In isolated locations, excessive or deficient moisture and low nutrient levels diminish the area's capability for forestry.

Compared to some outdoor recreation areas, Springwater cannot sustain a high level of use because of resource constraints. However, despite a relatively low ranking for outdoor recreation as outlined above, Springwater can accommodate thousands of visitors annually. The beach cannot handle as many people as Port Stanley, Port Bruce or Port Dover, and the campground and beach is relatively small compared with Fanshawe.

Patterns of land use have been established at Springwater for a considerable period of time. Fortunately, environmental degradation as a result of resource overuse does not appear to be a serious problem. On the other hand, there are areas of concern within the Conservation Area of forest. There are many examples of the resource management issues to be deal with at Springwater. One example is the ongoing critical comments on water quality and quantity that have been made by visitors. A second example is wildlife species such as the beaver have significantly diminished in number with only one beaver seen in 2020. A final example is the clear cutting of the 2 hectare plots in 1979 that stirred up

[28] Conceptualized in the early 1960s by the Department of Forestry and Rural Development (later the Department of Energy, Mines and Resources), the CLI was a federal-provincial project that lasted from 1963 to 1995 and produced maps which indicated the capability of land to sustain agriculture, forestry, recreation and wildlife. https://open.canada.ca/data/en/dataset/0c113e2c-e20e-4b64-be6f-496b1be834ee

controversy that lingers today. The following section more fully explains these issues, and others, and outlines management policies to effectively deal with them.

Development and Management Issues

One of the most important management issue related to outdoor recreation is the carrying capacity of the area. Generally, the amount of use sustained by Springwater appears to be at an environmentally acceptable level. However, the Conservation Area could even accommodate more visitors, particularly for camping and day-use activities such as picnicking and swimming. As CCCA balances the environment and the economy in decisions related to conservation lands[29], it is important to determine when the deterioration of the resource base has been excessive.

Carrying Capacity

In the recreational context, carrying capacity can be described as the level of recreation which an area can sustain without an unacceptable degree of deterioration in the character and quantity of the resource or the experience. An "unacceptable degree of deterioration" obviously depends on the perception of the individual. The definition of what is acceptable becomes a subjective decision rather than a technical or scientific decision. Even if research can show how areas and experiences will change with various levels of use and management practices, someone must still decide what changes are acceptable.

In terms of the campground, staff must decide if it is acceptable that ground cover under trailers will be reduced if allowed to remain on site for the full season. In terms of trails, some sections become compacted and expose tree roots and as a result the trail should be relocated or protected with wood chips to manage the exposed root issue.

Recreational activities carried out at Springwater have a certain level of impact on the resources supporting them but the difficult task is to establish how much use is acceptable to a majority of people. The Ontario Recreational Survey provided a series of recreation facility space standards which helped determine acceptable levels of facility use. Table 10 below identifies the capacity of various activities and related facilities at Springwater.

Table 10: Activity Allocation

Activity	Facility	Space Standard	Capacity (People)
Swimming	450 sq m	1 person / 3.4 sq m	130
Picnicking (day-use area)	15 tables	6 people per table	90
Overnight Camping	40 sites	Max 6 people per site	240
Group Camping	3 fields	200 people per site	600
Seasonal Camping	150 sites	Max 6 people per site	900
Trails	9.7 Km	31 persons per kilometer	300
			Total = 2260

Relating the above table to historic attendance figures for Springwater, swimming was identified as a potential concern due to overuse with poor water quality being an indicator of excessive use. As a result, periodic tests are conducted by South-Western Public Health and available on their website[30].

[29] https://www.catfishcreek.ca/wp-content/uploads/2019/06/CCCA-2019-2023-Strategic-Plan.pdf
[30] https://www.swpublichealth.ca/en/community-health/beaches.aspx

In recent years it has become apparent that land and water use upstream from the reservoir has a stronger influence on water quality than excessive swimming activity but testing should still be done. Studies have shown that disease-causing bacteria populations do increase with swimming. Deposition of human wastes and litter into the water are potentially hazardous, particularly for young children.[31] Use of the reservoir by waterfowl can contaminate the water with bacteria. Fortunately, no positive results for e-coli were found in 2019 and 2020 and bacterial levels have been substantially lower than the maximum levels considered safe for water contact recreation.

For all other activities at Springwater, use appears to be at an environmentally acceptable level. Concerns identified earlier regarding trail use and ground cover disturbances in the campground should be dealt with using one of the following methods of environmental impact reduction:

1. Restrict Use
2. Eliminate the use temporarily, allowing the area to recover
3. Use cultural methods (fertilizer and water) to revive the resource
4. Change the design of the area/facility to change use pattern
5. Make areas (e.g. campsites) more artificial, reducing the impacts on the surrounding natural elements

The above strategies are utilized in the chosen development concept explained in the next section. For example, new campsites will have gravel pads on which trailers/RV's must be placed and reducing the impact on surrounding vegetation. Another example is ensuring some areas remain group camping allowing the ground cover to recover after each event. A final example is closing unacceptably small sites to create a few larger sites.

Forest Management

CCCA had an agreement with the Ministry of Natural Resources (MNR) signed in 1964 for a period of 40 years to manage approximately 149 hectares of land, including all of the Jaffa Tract and most of the Springwater Forest. The Ministries goal in managing the forest was to produce a sustained yield of hardwoods while protecting the sensitive and significant areas of the site and continuing to provide opportunities for extensive recreation and outdoor education.[32]

For example, after commencing the timber harvesting schedule in 1979, public outcry against the cutting of the mature forest was so strong that it forced a suspension of the logging schedule. This opposition caused MNR to reassess its approach to managing the forest. To help with the decision-making process, Ian Macdonald's Botanical survey was conducted in 1981. This study helped to determine the significance of the flora, the diversity of species and the success status of the regeneration within the clean cut areas. Naturalists expressed concern that the Carolinian elements of the forest might have been replaced by a maple-beach bush which seems to be the case today.

More recently the CCCA Board of Directors makes decisions around the management of the forest where they have indicated a desire to preserve the forest. The preservation of this area is recognized not only for aesthetic reasons, but for the biological and ecological uniqueness of this Old Growth

[31] Wall, G. and C. Wright. The Environmental Impact of Outdoor Recreation. University of Western Ontario, Dept. of Geography Publications Series No. 11., 1977. P.30.
[32] Ontario Ministry of Natural Resources, Aylmer District. Draft Policy Statement For Springwater Forest and The Jaffa Tract. Aylmer, Ontario. 1977. P.15.

Carolinian Forest. The preservation approach is directly associated with the potential revenue in lumber sales and its ability to raise funds to complete capital projects in the Conservation Area and forest. The Authority has taken a more pro-active management approach such as implementation of projects resulting from grants, donations and user fees. Project such as boardwalks, fishing platforms, signage and additional trail loops resulted from federal infrastructure projects and local donations in 2012 such as the Palmer Estate[33] that resulted in the construction of the Springwater Forest Trail Boardwalk. A more detailed inventory of projects is found in Table 1.

An operating plan that deals with the forestry issues was prepared in 1996 by the Catfish Creek Conservation Authority. The Plan titled: *Springwater Forest and the Jaffa Tract Interim Operational Land Management Plan – Final Report, 1996*, clarifies and documents the roles and responsibilities of the various agencies involved with the Springwater Forest and Jaffa Tract. An updated "Operating Plan" that deals with the current forestry issues such as Ash and Beach disease should be prepared as soon as possible. An update Operating Plan would resolve, for example, the suggestion of the types and extents of trade-offs to be agreed upon to manage the forest for the perpetuation of significant natural features versus a sustained yield of hardwoods. The willingness to pay for use by a visitor will be subject to their aesthetic experience when walking in Springwater Forest. Public benefit must be enhanced rather than compromised, and appropriate management techniques and policies must be identified and implemented to achieve the stated goals and objectives.

Water Management

Springwater Reservoir and Bradley Creek both suffer from three sources of water quality impairment. These include recreational usage of the reservoir, nutrients from upstream farming activities, and urban runoff/discharge from the Town of Aylmer. Water levels in Springwater Reservoir regularly fall in late July and August as water is used to irrigate the surrounding fields. When the water level falls the concentration of various pollutants (e.g. Nutrients) within the reservoir increases and causes the formation of algae which impairs water quality. A bubbler system was installed and operates during the peak temperatures to limit water quality impairment. As above, fortunately no positive results for e-coli were found in 2019 and 2020 and bacterial levels have been substantially lower than the maximum levels considered safe for water contact recreation.

Springwater Reservoir is also gradually filling up with sediment as identified in a report completed by MacLaren Engineers in 1988. Heavy sediment loads continue to be deposited in the basin and average water depths are slowly decreasing as seen in Table 4 above. A decision will have to be made whether or not to dredge the reservoir or examine alternative sources for swimming as the Reservoir will eventually transform into a wetland unless dredging activities are carried out.

One of the most critical factors for effective water management is co-operation among landowners in the Bradley Creek drainage basin. In 2020, a grant application was submitted to the Federal Government where CCCA requested $60,000 for the implementation of cover crops on 330 acres and the establishment of a 1900m grassed waterway. CCCA also applied for the associated soil and water sampling which helps quantify the optimal nutrient application for the two participating farms. CCCA also proposed to test some various cover crops and other best management practices to determine an efficient approach to reducing Phosphorous without limiting the profit of the business. The project did

[33] https://www.catfishcreek.ca/wp-content/uploads/2019/10/2012-Annual-Report.pdf

not receive funding but the project plan is complete and should be submitted to future grant funding opportunities.

The amount of water for irrigation purposes could also be examined through a research project of actual takings versus permitted takings under the Permit To Take Water (PTTW) program.[34] CCCA is not funded by the Province to implement water quantity research in the context of PTTW or Ontario Low Water response. This may or may not change with anticipated changes to the Conservation Authorities Act[35].

Wildlife Management

Although there is moderate potential for wildlife production in the Forest, there are several restrictive factors such as its closed tree canopy which restricts shrub and ground cover growth forcing the ungulates and other mammals to migrate beyond the Conservation Area and Springwater Forest. The quality of the water resources in the Forest restrict waterfowl population increases and definitely limits sportfish production. Reservoir drawdown periods such as in low flow conditions may also have a negative effect on wildlife such as fish, reptiles, and amphibians.

From a Natural heritage perspective, Springwater Forest provides a significant amount of interior habitat as outlined in the 2018/19 Elgin County Natural Heritage System Study[36].

In order to sustain wildlife populations, the following management strategies should be implemented:

1. Planting wildlife shrubs such as Nannyberry and Highbush cranberry that provide food and shelter for a variety of species
2. Discourage the development of additional forest trails
3. Implement a water quality improvement project upstream of the reservoir on Bradley Creek tributaries
4. Realize the importance of dead trees in the forest for the benefit of a variety of wildlife species such as woodpeckers, owls and opossums.
5. Do not permit hunting within the Conservation Area or Springwater Forest
6. Consider the benefits and disadvantages of trapping for Muskrat and Racoon within the Conservation Area and Springwater Forest
7. Include a comprehensive wildlife management policy in any updated Forest Management Plan for Springwater Forest

Archeology

All designated archeological sites in the province are protected by Part IV of the Ontario Heritage Act which determines priorities, policies and programs for the conservation of archaeological resources determined to have cultural heritage value. Among other provisions, the act makes it illegal for anyone but a licensed archaeologist to knowingly disturb an archaeological site. This means that unless you are

[34] https://www.ontario.ca/page/guide-permit-take-water-application-form
[35] Environmental Registry of Ontario. Modernizing conservation authority operations - Conservation Authorities Act. April 5, 2019. https://ero.ontario.ca/notice/013-5018
[36] https://www.elgincounty.ca/wp-content/uploads/2019/08/Elgin-Natural-Heritage-Systems-Study-Information-1.pdf

a licensed archaeologist, it is illegal for you to dig an archaeological site or dive on a shipwreck to record its condition or remove and keep artifacts[37].

Enforcement of regulations is the critical factor in preserving sites for the future. The public must realize the significance of maintaining sites as they are without human disturbance. Conservation Authority staff, if they are not aware of the exact location of the Downpour Site within Springwater, should be informed and efforts made to initiate an informal system of periodic checking of the site to ensure that unauthorized digging is not occurring. The Authority should also continue its working relationship with the Aylmer Malahide Museum and Archives to help gain a full understanding of the significance and quality of the site. Finally, education programs relating the artifacts in the Miller and Gray Collection could be implemented to help future generations increase their understanding of the history of the Springwater. As per the original forest management polices, it is anticipated that the site and a suitable buffer will not be disturbed by logging activities. For the purpose of this Master Plan, this concept will be extended to other activities, and the location will not be published on maps as this would only serve to make the site more susceptible to exploitation.

Other Planning Considerations

Springwater falls across jurisdictional boundaries of two official plans, Central Elgin and the Township of Malahide. The Central Elgin Official Plan[38] is the planning document affecting land use and development on property west of Springwater Road, while the Township of Malahide Official Plan[39] applies to property east of Springwater Road. Planning policies in each plan are very similar. Both have sections on conservation that emphasize proper management and maintenance of natural areas indicating that any development in areas of exceptional scenic or recreational value and geographic or environmental significance should be regulated so that its impact will not detract from the natural environmental character of the area. Specifically, for Central Elgin, good forestry practices as defined in the Forestry Act should be adhered to and all tree removal should be done in accordance with the Elgin County Woodlands Conservation By-Law.

The day-use area and Springwater forest are designated as conservation lands, hazard lands, locally significant woodlands between 10 and 20Ha, provincially significant woodlands greater than 20Ha, significant wetlands, and an Area of Natural and Scientific Interest (ANSI) life science. The West side Springwater Road in the seasonal campground is designated as natural hazard, natural heritage, wooded area and a former waste site (Closed in 1952, Class B5, and low potential for impact on humans) near the administration office.

Conservation Lands are the areas of exceptional scenic and recreational value and geographic and environmental significance and should be preserved and/or developed in order to maintain their inherent environmental and scenic values. Any development in areas of exceptional scenic or recreational value and geographic or environmental significance should be regulated so that its impact will not detract from the natural environmental character of the area[40].

[37] http://www.mtc.gov.on.ca/en/archaeology/archaeology.shtml
[38] Central Elgin Official Plan https://www.centralelgin.org/en/business-development/official-plan.aspx Version Referenced: March 2013
[39] http://www.malahide.ca/official-plan-0 Version Referenced: September 2013
[40] http://www.malahide.ca/official-plan-0 Version Referenced: September 2013. p.44

Hazard lands have uses limited to agriculture, conservation, horticulture, nurseries, forests, wildlife areas, parks and other outdoor recreational activities[41]. Woodlands are identified as protected from incompatible land uses and Central Elgin has indicated they shall promote reforestation and naturalization in all private and public lands where appropriate.

A Life Science ANSI in Springwater is defined as largely coincident with other natural heritage features such as significant woodlots and significant valley lands, and fall within the Natural Heritage designation in the Land Use schedules.

Wetlands include swamps, marshes, bogs and fens. They are lands that are seasonally or permanently covered by shallow water and lands where the water table is close to or at the surface. Wetlands have hydric soils and hydrophytic or water tolerant plants. All wetlands are designated as Natural Heritage on the Land Use schedules. The wetlands in and around Springwater Forest and Conservation Area are classed as Provincially Significant wetlands.

Zoning

One of the most useful management tools in any Master Plan is zoning. Springwater can be divided into four zones which detail slightly different levels of development, management practices, and types of activities allowed. The four zones are:

1. Access/service Zone
2. Interpretive Zone
3. Natural Environmental Zone
4. Recreational Zone.

Access Service Zone

This zone consists of the entrances, roads, entrance control facilities, parking, concession booth, store, administration office and workshop complex.

There are currently three types of road surface within Springwater: asphalt, gravel and dirt. Generally no additional roads are scheduled to be developed at this time with the exception of an additional lane at the entrance planned for 2021. Entrance control facilities to the seasonal campground are not suitable and are also scheduled for upgrade in 2021. Springwater does have a parking problem on weekends and the day-use area should be considered for parking to reduce the on-road parking.

Change rooms and washroom facilities are adequate with only interior alterations and maintenance required. All facilities are to be made accessible during any renovation or reconstruction projects[42].

The administration office and concession booth will undergo preventative maintenance. The campground store is unsuitable and the construction of a new gatehouse/visitor centre is planned for 2021. No changes to speed limits and parking policies are anticipated.

Interpretative Zone

The interpretive zone consists of the schoolhouse, Maple Syrup building, arboretum and dam. Recreational activities in this zone are passive and include hiking, picnicking, wildlife viewing and other nature based activities.

[41] Township of Malahide Official Plan http://www.malahide.ca/official-plan-0 Version Referenced: September 2013. p. 62
[42] https://www.ontario.ca/page/accessibility-in-ontario

The schoolhouse has been equipped with access for customers with disabilities and is used as a meeting place for various community groups, school events such as Envirothon, and large gatherings such as weddings.

Development of the arboretum is ongoing and there are plans to augment a section of the arboretum from group camping to new campsites that can be reserved.

Springwater Dam has been included within the interpretative zone as it provides the Authority with an excellent opportunity to explain the purposes and operation of a dam. Additionally, in 2021, the weather station from Port Bruce will be moved to the dam area providing additional education opportunities regarding water and weather monitoring.

Recreational Zone

This zone is comprised of the east and west campgrounds, beach, picnic areas, playgrounds, volleyball court, and other open spaces. A wide variety of active and passive recreation occurs in this zone including athletics, picnicking, and swimming.

A variety of different development will occur over the life of this Plan to enhance the quality of experience for each visitor and fulfil the Objectives for the Conservation Area.

Natural Environment Zone

The Natural Environment Zone is the largest area and consists of Springwater Forest, Jaffa Tract, and Springwater Reservoir. These areas are relatively undisturbed sites and illustrate the natural environment at work. The only developments proposed in this zone involve trail improvements and interpretative markers. Recreational activities will be limited to hiking, nature appreciation, cross country skiing, snowshoeing, dog walking, and mountain biking

Land Acquisition

Springwater Conservation Area, Forest and Jaffa Tract contain several interesting and significant natural features. Within the property boundaries, a variety of outdoor recreational opportunities are provided as the Conservation Authority has made a substantial effort to meet the needs of the area residents while protecting and managing the resources in an environmentally sound manner. However, there are certain parcels of land adjacent to Springwater that would be beneficial to the Authority to acquire to achieve the strategic goals outlined by CCCA and this Master Plan. Map 14 shows the four properties targeted for acquisition.

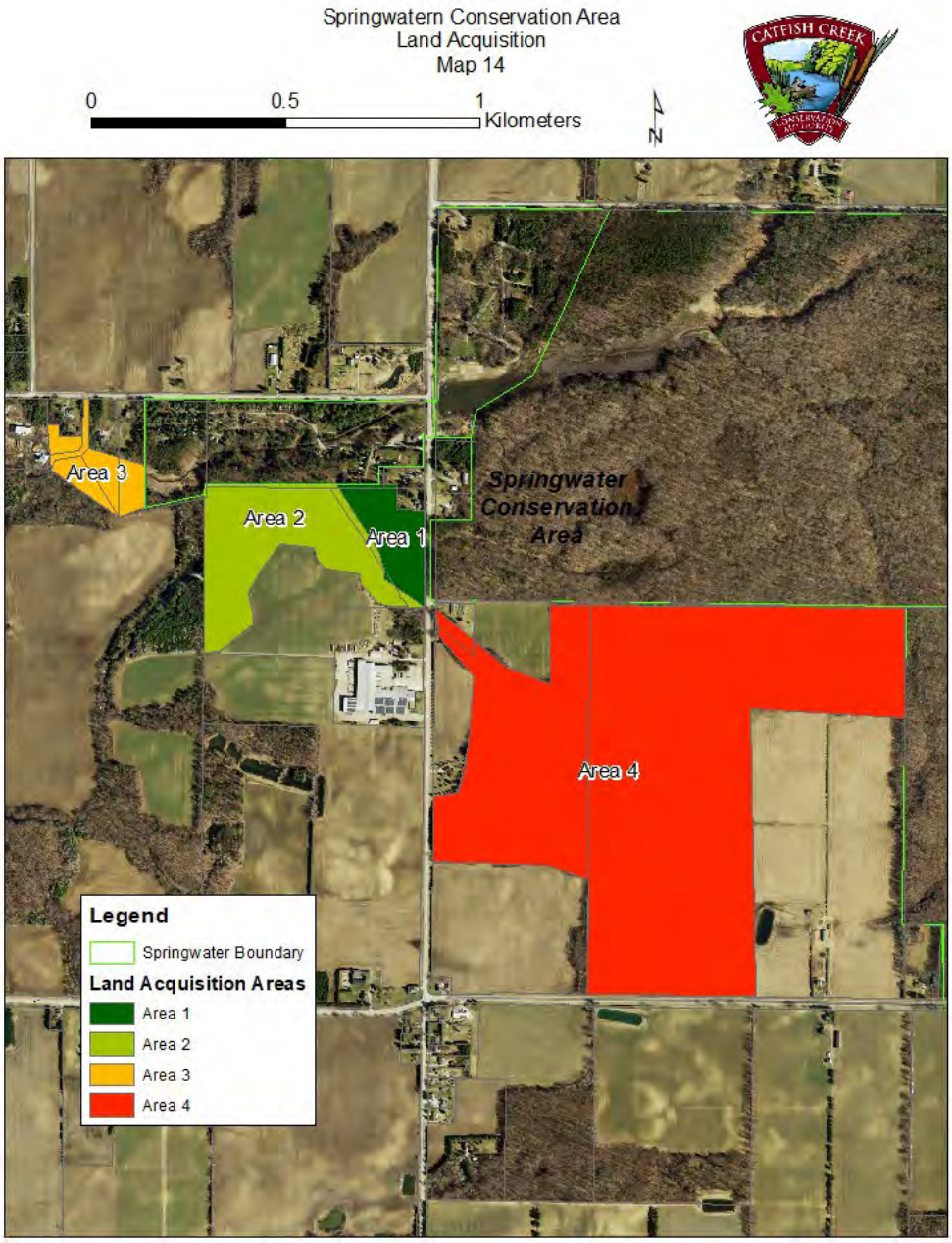
For its present size, Springwater Conservation Area has developed much of the available areas for camping with the ability to add more campsites in different sections of the campground. There are no large sections capable of supporting a new campground area, however some of the group camping areas have been identified since early Springwater Master Plans as formal campsites.

Campsites could be developed within the Mill Pond trail section however a balance between the plants and the augmentation of a favoured nature trail needs to be considered against the economic gains. In addition, some of the natural aesthetics from existing seasonal sites may be jeopardized.

Springwater is not set up as a commercial campground where campground arrangements of campsites and recreational facilities take up as much space as possible. Rather, Springwater is a Conservation Area where the focus is on camping, recreation, and the preservation of the environment. A major attraction to Springwater is the lack of overcrowding. As there are limited new camp site opportunities, a possible solution to expand is through the purchase of adjacent properties.

The following four properties were originally identified in the 1983 and 1990 Master Plans. Descriptions of these properties, along with Map 14 are reproduced from previous Master Plans. If it is in Authority's interest to expand facilities, then it is recommended that consideration be given to the purchase of these properties.

Figure 19: Land Acquisitions (Areas 1 – Area 4) (Map 14)



Area 1

Location	Lot 27 (part of), Concession 6, Central Elgin.
Size	4.45 Hectares
Ownership	Private Landowner
Access	Approximately 114 metres of the northern boundary touches White's Mill Campground. Springwater Road forms the eastern border while the high-water mark of a Bradley Creek tributary forms the western border.
Land Use	The area identified is the forested part of a larger 5.7 Hectare parcel. The remaining property has been cleared and consists of a 150 year old house and is not subject or suitable of purchase. A pine plantation with a small network of trails has been established by the landowner.
Physiography	Norfolk Sand Plain.
Topography	Generally flat to gently rolling, sloping southwesterly to a creek tributary. 70% valleyland and 30% tableland. A small incised valley has been formed by a stream running from the east to west through the middle of the property towards the tributary.
Soils	Oshetemo sandy load and eroded soils.
Hydrology	Well drained land. Streams have high spring and low summer discharge. East-west stream originates in Springwater Forest and has good water quality.
Vegetation	Healthy pine plantation with limited to moderate amounts of ground cover.
Historical	Pond in the north-west corner is the result of an earthen dam built in 1865.
Archeological	No features known.
Educational	If acquired, the property would serve to expand the interpretative program.
Aesthetics	Good
Summary	This area exhibits interesting biophysical and cultural features complementing those in Springwater. Acquisition would allow the implementation of water management techniques to protect this tributary of Bradley Creek. It would also allow for expansion of camping, recreational and interpretative facilities.
Estimated Cost	$300,000

Area 2

Location	Lot 28 (part of), Concession 6, Central Elgin.
Size	7.28 Acres.
Ownership	Private Landowner.
Access	Approximately 275 metres of the northern boundary touches southern Springwater. Vehicular access could be obtained using a farm road south of the property, or from using the 1865 earthen berm in the north-east corner of the property.
Land Use	Northwest portion of the property is scattered planted conifers, with the remaining section being wooded. This parcel is part of a land holding of 15.7 hectares of which 8.5 Hectares is arable land not the subject of the purchase.
Physiography	Norfolk Sand Plain.
Topography	Flat to gently rolling, sloping to the northwest and northeast. Small river valleys are situated parallel to eastern and western borders. 30% tableland and 70% valleyland.
Soils	Oshtemo sandy loam and eroded soils.
Hydrology	Well drained land. Spring along the eastern border has high spring volume but low summer volume and flows into Bradley Creek and the pond created by the earthen dam in 1865.
Vegetation	Deciduous / coniferous mix scattered with sumacs and planted conifers.
Historical	Pond at the properties northeast corner was created .
Archeological	No features known.
Educational	This property would serve to expand the interpretive program.

Aesthetics	Good.
Summary	This area exhibits interesting biophysical and cultural features complementing those in Springwater. Acquisition would allow the implementation of a proper water management techniques to protect this tributary of Bradley Creek, forest management, expansion of camping, recreational and interpretative facilities.
Estimated Cost	$500,000

Area 3

Location	Lot 27 (part of), Concession 6, Central Elgin.
Size	8.9 Hectares.
Ownership	Three private landowners.
Access	Eastern boundary of parcel touches western boundary of Springwater. There is road access from Southdale Road through the White's Mill property.
Land Use	The primary feature is a five-hectare marsh with water levels controlled by the White's Mill Dam. Water is used to irrigate fields to the south. A small mill operates immediately to the west. The pond today serves wildlife and water management functions. Private residences and a pine plantation are situated north of White's Pond.
Physiography	Norfolk Sand Plain.
Topography	Flat gently rolling, 80% valleylands and 20% tablelands. Incised valley of Bradley Creek has been flooded by the dam.
Soils	Mixed sand and silty clay loam north of Bradley Creek, eroded soils in the valleylands, Oshtemo sandy loam south of Bradley Creek and pond.
Hydrology	The marsh was created 150 years ago by damming Bradley Creek. The water level drops an average of .6 metres in summer due to irrigation with staff managing the dam to ensure enough water for aquatic species during low flow conditions. A stream enters the pond form the south. The pond's position on Bradley Creek and the dense growth of cattails makes it important for filtering excess nutrients.
Vegetation	A pine plantation exists in the northeast section. Mixed forest grows on slopes south of the pond. The river valley basin has a mosaic of emergent and floating cover types.
Historical	Grist mill built on White's Pond in 1867.
Archeological	Two sites are registered on Lot 27, Concession 6.
Educational	This property would serve to expand the interpretive program through the development of an interpretive trail around the pond where the following educational features could be identified such as the importance of the area for waterfowl and wildlife, diversity created by the edge effect of a marsh meeting the forest, and the historical value of the wetland for water retention.
Aesthetics	Good to very good.
Summary	Acquisition of this biologically and hydrologically significant area would permit further implementation of the CCCAs stewardship and water management programs. By properly managing the wetland area its water retention value will be secured. White's Pond helps to provide a more constant supply of water to Bradley Creek. Maintaining adequate water for irrigation is also important. Appropriate management techniques to minimise downstream erosion, protect wildlife habitats, and enhance the scientific and educational value of the area. Archeological features would be protected. Camping and recreational facilities can be expended into this area.
Estimated Cost	$600,000

Area 4

Location	Lot 1-3 (part of), Concession 5, Malahide Township.
Size	50 hectares.
Ownership	Private Landowner.
Access	Northern border touches the southern border of Springwater Forest.
Land Use	Forested land with scattered moist depressions. In the northwest corner along Springwater Road, the creek has been dammed up and used primarily for recreation. The forest has been selectively cut over many decades.
Physiography	Norfolk Sand Plain. A western extension of the Tillsonburg Moraine passes through the southernmost portion.
Topography	Gently rolling sand plain with incised stream valleys and swamp depressions. The southern portion presents a more extensive broad, wet, swampy basin with infrequent and small rises.
Soils	Granby sand throughout the central wooded portion (poorly drained). Well drained Oshtemo sand in the northwest corner. Eroded soil in the vicinity of the reservoir and a short distance upstream.
Hydrology	Significant water source area for Bradley Creek. Several wet depressions are situated between the low sand rises of the northern portion. A broad, wet, swampy basin exists in the southern forested portion. These moist depressions provide the water source for streams cutting shallow incisions across the area.
Vegetation	Dominant tree species include sugar maple, American beech, red oak, white oak, white ash, and black cherry. Shrubs include witch hazel, ironwood and flowering dogwood. Species characterization of the incised stream valleys include hemlock, basswood and wild ginger. Deciduous swamp communities in this area include silver maple, red maple, yellow birch and sedges. Among the rare species in this area are American chestnut, swamp white oak and rough leaf goldenrod.
Historical	No features known.
Archeological	No sites known.
Educational	This property would serve to expand the interpretive program through offering access to unique untouched areas of the Forest once a year.
Aesthetics	Moderately good. Forest cover is broken up into irregular patterns by scattered cropland. Dense vegetation growth limits viewing distance.
Summary	This significant area serves as an important source of water for Bradley Creek. It also includes several interesting and rare flora. It is not anticipated additional trails would be put through this area rather it be it be used for educational, community relations and water management purposes.
Estimated Cost	$2,000,000

Plan Implementation

Since the implementation of the 1983 and 1990 Master Plans, Springwater Conservation Area is considered to be largely developed. However, room for growth still exists. New proposals are offered in this Plan to increase the appeal of Springwater, raise the quality of recreational activities, and increase the services available to campers and visitors.

Guidelines from the 1983 and 1990 Master Plans are still applicable to the 2020 Master Plan and are used to direct the implementation of the various phases and proposals.

These guidelines include those for site design, landscape design, community relations and phasing in of development. Sections are also presented for maintenance, enforcement, management, and proposed acquisition of significant natural areas in the immediate vicinity.

Site Design Guidelines

Vehicular and pedestrian traffic moves through the Conservation Area using asphalt roads, gravel/dirt roads, paths and nature trails. Arteries receiving heaviest use that are currently surfaced with asphalt include the main campground road in the West Campground. The width of such roads should be maintained at 6.7 metres with 3.0 meters of vegetation pruned back on each side of the road. Secondary roads (e.g. the west campground road beyond the gabion bridge, east campground loops) should be a minimum of 4.5 meters, and if not asphalt, treated with calcium or some other dust inhibitor. Vegetation should be pruned back from each side at least 1.25m.

The main access road through Springwater Forest should have a maximum width of 2.45m with the same vertical clearance. Secondary forest trails (e.g. along the south edge of the pond) should be maintained at a width of 1.25m (maximum) with vertical clearance of 2.45m. Wood chips should be applied where tree roots become exposed. The Wheelchair Trail should be periodically treated with soil cement to maintain a relatively smooth surface.

Day-use and campground visitor parking lots should not be expanded or relocated. These parking facilities should be surfaced with gravel, periodically treated with a dust inhibitor and encompassed with barriers to restrict traffic movement onto grassed or natural areas.

Present directional patterns on roads (one-way or two-way) should be maintained. Generally no additional entrances, parking areas or roadways will be developed during the life of the Plan, except those for the new exit lane for the new entrance and visitor centre, and those associated with ingress and egress to the new campsites outlined in the Plan. The existing road around the new campsites proposed in Phase 1 will need to be enhanced. The wet areas in the middle and to the north of this new section will need grading and gravel to minimize impact on soils.

Visitors to the day-use picnic pavilion should be directed to park in the day-use parking lot and discouraged from driving across the grass to the shelter.

All campsites within the services campground sections will continue to have individual water and hydro hookups. Individual sewer hookups are not provided, although they are considered as part of future upgrades in the east campground. Gravel pads will be placed on all serviced sites that are used on a seasonal or transient basis. Each site will have a fire pit in a consistent location to prevent campfire burn marks on a given site. Each site will have a picnic table that is not affixed allowing it to move around the site and spread out soil compaction and disturbance of natural cover. Topsoil and grass seed will be applied to the group camping area to provide a more resilient and attractive surface.

Architectural Guidelines

Two types of structure designs prevail at Springwater. The administration building, sugar shanty, new visitor centre and existing picnic shelters are wooden structures, while other service buildings such as the washrooms, beach house and schoolhouse are constructed of brick. Any proposed structures to be built in the future can be constructed of wood, brick or steel as long as the designs and colours adequately blend in with their natural surroundings. For any refinishing work, consider the use of stains on wood components as opposed to colour paints.

Landscape Design Guidelines

Large open areas within the day-use section will be broken up into smaller units by means of mass tree and shrub planting of native deciduous and coniferous species. Future trees plantings between campsites should be discouraged due to the poor growth success and grass trimming difficulties. New tree plantings may occur as part of the development of new sites in order to create a natural separation between sites to minimize the movement of campers across sites.

Dead or fallen trees in all use areas should be removed for public safety and cut of for firewood if applicable based on type and quality of wood, and staff resources available. A hazard tree policy and monitoring program is in place and third party tree experts are brought in to cut any trees that are a safety concern or where staff do not have the equipment or experience to safely remove. A regular schedule of trimming and pruning planting trees should be developed and sustained.

Conservation Area signs should be maintained in good condition. Consider the replacement of all painted wooden signs with more durable painted steel signs.

Community Relations

Springwater Forest is one of the 16 life science Areas of Natural and Scientific Interest identified by the Ministry of Natural Resources and Forestry. As a result, the community relations and outdoor education programs highlight the important natural environment found at Springwater. The education programs identify and explain the facilities/activities offered at Springwater, the provincial and local significance of Springwater Forest, and the watershed management programs such as environmental monitoring.

Information is primarily shared via social media as it provides a cost effective and environmentally effective method to community programs, services and events to the public and stakeholders. Facebook is the most popular with over 4,400 followers, and Instagram (856) and Twitter (265) following respectively. The social media statics for 2020 are as follows:

Channel	**# impressions**	**# interactions**
Facebook	3412	349
Twitter	6637	135
Instagram	(n/a)	(n/a)
LinkedIn	1129	129

The development of the visitor's centre planned for 2021 will deliver on a Master Plan concept remaining from the 1985 Plan where demand for such a facility were warranted at the time, and even more so today with the increase in visitors. No other Conservation Area in Ontario with Springwater's degree of natural and historical significant is without an interpretative centre of some description. Such a facility serves to provide a focus and meeting spot for Interpretative Programs for Springwater and other Authority-owned lands, complementing the facilities provided at the Jaffa Outdoor Education centre offering a destination/stopover point for the large school groups currently using the trail system. Another focus is a general information centre for first-time visitors to Springwater Conservation Area and Forest.

Maintenance Guidelines

Appropriate maintenance techniques are essential for preserving the various facilities and resources provided in Springwater. The following maintenance guidelines are suggested for implementation:

Turf

During the operating season, maintain grass at a height of 6-8 cm depending on weather conditions. Fertilize, aerate and water areas that experience heavy summer wear and compaction. Apply topsoil and/or grass seed in damaged turf areas.

Trees and Shrubs

Periodically prune trees and shrubs adjacent to roadways and maintain a vertical clearance of 3.7 m. Remove all dead or diseased trees within the day-use, camping section and any trees that cause a hazard in relation to walking trails in Springwater Forest and the Jaffa Tract.

Signs

Maintain all signs in good condition. Consider the use of steel signs to replace traditional wooden signs. All new signs should have a coating that prevents graffiti permanently attaching to sign.

Garbage Disposal

Provide seasonal/weekly/monthly campers with one garbage bag per week and provide transient campers with one bag when they register with additional bags able to be picked up for those with longer stays. A garbage facility is available for seasonal use and security improvements to ensure compliance with large items being dropped off should be considered. During peak periods the maintenance staff will contact the disposal company when the bulk container is close to full.

Washroom Facilities

Maintain all washroom facilities at a high standard of cleanliness and meeting or exceeding recommendations from South-West Public Health[43].

Trails

Periodic checks of the trails system should be made by Springwater maintenance staff to prevent the accumulation of refuse, to check for fallen or hazard trees that jeopardize public safety, to replace or check for signage, and to maintain the condition of the trail itself at a high standard. Apply wood chips to portions of the trail where trampling has exposed tree roots or eroded soil sediments (e.g. along the trails immediately south of the pond).

Roads

To develop and implement a system of annual road maintenance within Springwater involving regrading of gravel, dust inhibitors, and patching or placing new asphalt as required.

[43] https://www.swpublichealth.ca/

Fencing

All boundary fencing will be maintained in a satisfactory manner and replaced with similar materials where required. New fencing along seasonal sites 1-5 is being considered for 2021.

Administration and Staffing

Administration of the Conservation Area capital projects will be conducted from CCCA Administration centre. Management of the day-to-day operations is headed by the Conservation Areas Supervisor with the assistance of Field Technicians, Park Technicians, Assistant Park Technicians and volunteers.

The Conservation Areas Supervisor is responsible for the year-round operation and maintenance of the Conservation Area such as snowplowing of the Admin centre, visitors centre and forest parking lot.

Enforcement

The Conservation Areas Supervisor responsible for all charges laid under the Conservation Authorities Act (Section 29). Other Authority personnel have a secondary enforcement role.

The list below indicates other individuals or organizations that can be called upon to keep a watch on and/or enforce the Conservation Authorities Rules and Regulations:

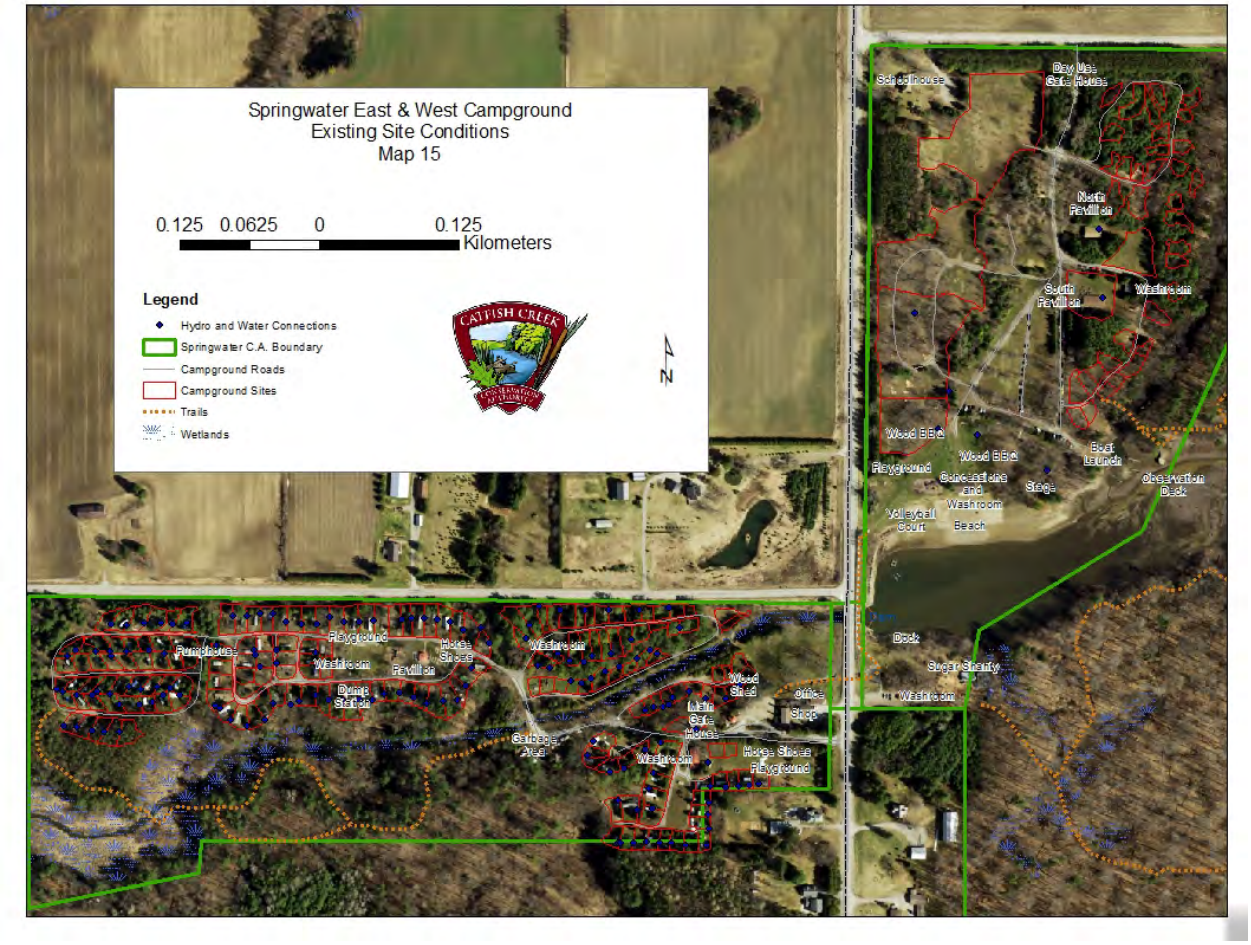
1. Ontario Provincial Police – Elgin Detachment
2. Conservation Officers (Ministry of Natural Resources and Forestry)
3. Private Security Firms

In case of fire, 911 should be called. The Township of Malahide fire station is located at John Wise and Imperial Road, with a 5.7 km distance to the Administration Office.

Master Plan Concept and Cost Estimates

The Concepts are divided into four phases in order to ensure sustainable development of the Conservation Area. Cost estimates are focused on capital costs for development of new facilities, however some general maintenance costs are also included. Map 15 is a visual representation of the current development as a result of previous Master Plans.

Figure 20: Master Plan Concepts (Map 15)



Map 16 illustrates the proposed development plan for over the next 20 years.

Figure 21: Master Plan Concepts (Map 16)

Development Concepts and Activities

Several activity and facility concepts have been developed over time by staff and the public and were evaluated as part of the public consultation for potential inclusion in the Master Plan. The list is prioritized into Low, Medium and High Priorities. High priorities should be accomplished by 2025, medium priorities by 2030 and low priorities by 2040 if applicable. The prioritized concepts and activities are as follows:

<u>Springwater Reservoir and Dam – High Priority</u>

Public consultation indicated water quality of the reservoir was the most important improvement that could be made at Springwater. As a result, in 2021, a bathymetry map will be created to assess the sediment in the pond and potential impact on the Dam.

In 2020, staff applied to the Great Lakes Protection Initiative to establish water quality monitoring stations on the tributaries into Springwater Pond. Although unsuccessful, staff will continue to pursue grant opportunities to further research and study the water quality in order to improve it.

In 2020, the aeration system around the dam was repaired leading to improved water quality. Staff must ensure the aeration system is functioning at all times when the water temperature goes above 20 degrees celcius.

A weather and water monitoring station should be established within the area of the Reservoir to establish a baseline of data for water quality modeling and to inform overall Reservoir improvements.

A new boat launch for use by CCCA only for reservoir maintenance equipment is included in the development cost estimates below.

Visitor Centre – High Priority

The development of the visitor's centre planned for 2021 and will deliver on a Master Plan concept remaining from the 1985 Plan where demand for such a facility were warranted at the time, and even more so today with the increase in visitors. The public consultation heavily supports the importance of establishing a Visitor Centre at Springwater.

Such a facility provides a focus and meeting spot for Interpretative Programs for Springwater and other Authority-owned lands. It also provides a friendlier check in/out process and a general information centre for first-time visitors to Springwater Conservation Area and Forest.

Stage – Medium Priority

An enhanced stage is planned for construction in 2021. The current 1200 square foot stage will be replaced with a roofed structure. The stage is not intended for large music festivals but rather for smaller musical events, awards ceremonies, Carolinian Forest Festival, plays, picnicking, interactive displays (e.g. Sciensational Snakes), weddings and other events in keeping with the peace and tranquility in the objectives.

Additional Seasonal and Serviced Sites – Medium Priority

The Plan calls for additional seasonal sites to be placed in the group camping areas in the East Campground. Sites will be fitted with sewer, water and hydro with meters in the long term. Additional facilities such as a dump station will need to be built. A new washroom is proposed to be constructed to support the new sites and special events and this will require a new septic bed.

Servicing the existing sites on the East side of the Day use area is a medium priority and accounted for in the cost estimates.

Schoolhouse – Medium Priority

Schoolhouse renovation and repair is scheduled throughout the Plan. Enhancing the schoolhouse to promote the historical aspects of the area is consistent with the strategic direction to "Research and promote the history of the Springwater Conservation Area".[44] Group camping will continue to be made available around the schoolhouse with additional electrical outlets planned for installation in Phase 3 of this Plan.

[44] https://www.catfishcreek.ca/wp-content/uploads/2019/06/CCCA-2019-2023-Strategic-Plan.pdf

Roofed Accommodation – Low Priority

Camping cabins and Yurts have been suggested several times and are to be considered as part of the Master Plan. Yurts would be 150 square feet and include a bed and dry kitchen. Cabins would be 250 square feet including a 100 square foot bedroom. Each cabin will have a 100 square foot veranda/porch. Seasonal considerations include maintenance, cleaning and rental. Roofed accommodation could rent for $100-$150 per night. Guests would be responsible to bring their own food, linens and cooking device. A BBQ may be provided. Roofed Accommodation would be located in the pines along Conservation Line in the north section of the north loop.

Yoga Platforms / Forest Bathing – Low Priority

Yoga and forest bathing has been an increasing activity in the park due to the solitude and calmness desired for these activities. Groups have been using the schoolhouse field in recent years for yoga, and the construction of a yoga platform(s) in the Conservation Area and/or forest has been considered. Yoga platforms scored relatively low during the public consultation so will not be an immediate priority.

Treetop Trekking – Low Priority

Treetop trekking scored high during the public consultation, although some comments were received expressing concern over the intensity of this activity in the tranquil forest. This activity has been implemented at several conservation areas and private parks throughout Ontario and Canada. There is significant overhead, but also significant revenue potential. Additional options through the Treetop Trekking group include a zip line, tree walk village, and associated team building courses. A thorough and detailed market analysis and a sizable consulting fee is required to assess this potential activity in the Conservation Area or Forest. As a result of the cost and concerns over compatibility with the principles of Springwater, this activity was scored as a low priority

Splash Pad – Low Priority

This activity has been implemented at several conservation areas and private parks throughout Ontario and Canada. There is significant overhead but not much return on investment. Two existing splash pads are within a 10 minute drive of Springwater. Although this activity scored relatively high, the cost and existing splash pads in the area reduced the priority of this activity.

Development Cost Estimates

Operation, maintenance and replacement of existing assets such as trails, roofs and equipment is part of CCCA's asset management strategy and are identified in the table below. Capital development and water quality projects prioritized above are also included in the table to provide an overall cost model for Springwater.

PHASE 1 (2020-2025)

Project	Cost ($)	Timeframe
New Gatehouse and Entry Way West Campground	80,000	2020
Build, Sign and add electricity to 22 new sites in Day-Use Arboretum (water not included in price)	40,000	2021
Purchase 22 new picnic tables for new day use sites	10,000	2021
Pine Ridge Washroom Partitions replacement	3,000	2021
Pavilion Bathroom partitions replacement	3,000	2021
Fence at White's Mill property boundary	5,000	2021
White's Mill Washroom to LED lighting	2,500	2021
Golf Cart (Maintenance & Security)	4,000	2021
Green Stage	300,000	2021
Water Quality Study	10,000	2021
Weather Station Installation and Upgrade	5,000	2022
Provide Internet access to campers	20,000	2021
Possible security camera installation where applicable	4,000	2021
Formal Dam Inspection	5,000	2021
Road resurfacing, into campground including White's Mill	12,000.00	2021
Pine Ridge Converted to LED Lighting	1,000	2021
Assess need or priority for replacing the Millpond Trail Observation Platforms.	4,000	2021
Sugar shanty roof Replacement	5,000	2021
TN 75A Tractor Replacement	65,000	2022
Upgrade the 16 sites in North Loop to include hydro and water	30,000	2022
Well Upgrades for increase water use	20,000	2022
Part of Road Resurfacing White's Mill down hill into kingfisher to pine ridge	10,000	2022
2014 Dodge Replacement	50,000	2022
Community room back door flat roof renovation	8,000	2022
Playground Poplar Hill replacement	18,000	2022
Dump Stations installed in day use area	5,000	2022
1 Walking Bridge Replaced On North Loop	3,000	2022
Signboard Replacement	1,500	2022
Schoolhouse drainage and floor	10,000	2022
Upgrade the 12 sites in Middle Loop to include hydro (water not included in price)	25,000	2023
New Steel Roof North and south Pavilion	10,000	2023
New Soffit/ Fascia Pavilion bathroom	5,000	2023
New roof White's Mill	10,000	2023
Road Resurfacing Day Use ½ paved.	50,000	2023
Road Created throughout ball field by schoolhouse for proper entry and exit	30,000	2023
Pavilion Washroom, soffit, fascia and new roof/ new windows	11,000	2023
Road resurfacing in the Pine Ridge Loop	40,000	2023
One walking bridge replaced on the North Loop	3,000	2023
Pine Ridge Roof	10,000	2023
Upgrade the 13 sites in South Loop to include hydro and water	25,000	2023

2016 Truck Replacement	50,000	2024
Road Resurfacing Day Use (Paving in phase 2), and the Poplar Hill Loop	20,000	2024
Kubota Mower Replacement	15,000	2024
Paved walk to the beach	6,000	2024
Observation/ Fishing Platform Review/ Replacement	5,000	2024
New Trailer Dumping/ Filling station in White's Mill	10,000	2024
New septic dumping stations in Spruce woods and Poplar Hill including filling stations.	10,000	2024
1 Walking bridge replaced on the North Loop	3,000	2024
Stage touch up and paint	1,000	2025
Day Use Gate House Replacement	40,000	2025
New woodshed beside gatehouse	2,000	2025
Wheelchair Matts for the beach, provides accessibility including a wheelchair platform beside matts	5,000	2025
New Septic Tank Main Office/ Community room.	20,000	2025
Road resurfacing Sprucewoods	10,000	2025
Pavilion built on the Maple Shanty side	40,000	2025
Annual General Building Maintenance ($20,000)	100,000	'20-'25
Total Phase 1	**1,300,000**	'20-'25

Phase 2 (2026-2030)

Project	**Cost**	**Timeframe**
T1310 Tractor replacement	30,000	2026
Schoolhouse Roof Replacement	15,000	2026
Schoolhouse Crawl Space refurbish and insulate	5,000	2026
New dump stations for pine ridge	10,000	2026
White's Mill Recreation (horeshoes etc.)	5,000	2026
Kubota RTV Replacement	15,000	2026
Structure study for gabion basket crossing on Bradley Creek	10,000	2026
New trailer dumping/ filling stations in White's Mill and a new dumping station in Sprucewoods	10,000	2027
Fence replacement between day use and county road 35	10,000	2027
Seasonal Recreation hall in poplar hill to replace existing pavilion to accommodate future numbers due to expansion.	60,000	2028
Bradley Creek, Boardwalk, Pole Barn evaluation and/or replacement	5,000	2028
Expansion east campground with 50 Amp premium sites in the South West section closes to the beach, expanding and running hydro water and sewer to all	100,000	2029
New dumping stations/ water filling stations added to the Day Use Area	25,000	2029
New Playground White's Mill to incorporate volume of guests due to expansion	15,000	2029
Updated dam safety manual/ maintenance protocols	5,000	2030
Formal 5 year dam engineering review	5,000	2030
Replace truck from 2022	40,000	2030
New trailer dumping station installed for expanded area	25,000	2030
10 year Forest Flora and Fauna study done to keep up building an environmental inventory of Springwater Forest	10,000	2030
Annual General Facility Maintenance ($20,000)	100,000	'26-'30
Total Phase 2	**$500,000**	'26-'30

Phase 3 (2031-2035)

Project	Cost	Timeframe
Expand schoolhouse field into a Premium Seasonal Camping area including Sewer, Water, and 50 Amp hydro	550,000	2031
Complete a professional horseshoe pit amongst newly formed sites in the day use area.	5,000	2031
Roofed Accommodation	100,000	2031
2024 truck replacement	40,000	2032
Yoga Platforms	10,000	2032
Assessment of suitability of Springwater for Treetop Trekking	10,000	2023
Splash Pad	100,000	2032
Water Capacity Increase (e.g. well, storage)	10,000	2032
New wood storage area (cribs)	10,000	2032
New pavilion for group rentals	40,000	2033
Add electrical to schoolhouse area for group camping	10,000	2033
New larger boat launch for launching Reservoir maintenance equipment (not public use)	20,000	2034
Stage touch up or paint and maintenance	5,000	2035
General electrical/ plumbing maintenance	5,000	2035
General Building maintenance	5,000	2035
Annual General Building Maintenance ($20,000)	100,000	'31-'35
Total Phase 3	**1,000,000**	'31-'35

Phase 4 (2036 – 2040)

Project	Cost	Timeframe
Expand seasonal campground into The Mill Pond Trail creating 10-30 new 50 Amp Premium sites with Hydro, Water, and if possible sewer	250,000	2036
White's Mill septic pump house review and renovation	6,000	2036
Poplar Hill washroom review and renovation	7,000	2036
Replace tractor from 2022	50,000	2037
Resurface all asphalt surfaces	95,000	2037
Replace truck from 2030	40,000	2038
Hydro and water system maintenance in newly expanded campground from 2029	5,000	2039
Green Roof Stage touch up or paint	2,000	2040
Replace truck from 2032	40,000	2040
Formal Engineering Dam Inspection	5,000	2040
Annual General Building Maintenance ($20,000)	100,000	'36-'40
Total Phase 4	**600,000**	'36-'40

Overall Capital Development Costs

Phase	Cost ($)
1	1, 300,000
2	500,000
3	1,000,000
4	600,000
Total	**2,100,000**

Appendix A - Springwater Master Plan 2020-2040 - Bird Species List

Site Name	*Date (dd/mm/yyyy)*	*Common Name*	*Species Code*
Springwater CA	2012-06-19	Eastern Wood-pewee	EAWP
Springwater CA	2017-06-20	Wood Thrush	WOTH
Springwater CA	2018-05-28	Eastern Wood-pewee	EAWP
Springwater CA	2018-05-28	Eastern Wood-pewee	EAWP
Springwater CA	2018-05-28	Wood Thrush	WOTH
Springwater CA	2018-05-28	Eastern Wood-pewee	EAWP
Springwater CA	2018-05-28	Eastern Wood-pewee	EAWP
Springwater CA	2018-05-28	Eastern Wood-pewee	EAWP
Springwater CA	2018-05-28	Eastern Wood-pewee	EAWP
Springwater CA	2018-05-28	Wood Thrush	WOTH
Springwater CA	2018-05-28	Acadian Flycatcher	ACFL
Springwater CA	2018-05-28	Warbling Vireo	WAVI
Springwater CA	2018-05-28	Eastern Phoebe	EAPH
Springwater CA	2018-05-28	Red-winged Blackbird	RWBL
Springwater CA	2018-05-28	Baltimore Oriole	BAOR
Springwater CA	2018-05-28	American Robin	AMRO
Springwater CA	2018-05-28	Rose-breasted Grosbeak	RBGR
Springwater CA	2018-05-28	Red-eyed Vireo	REVI
Springwater CA	2018-05-28	Great-crested Flycatcher	GCFL
Springwater CA	2018-05-28	Common Yellowthroat	COYE
Springwater CA	2018-05-28	American Crow	AMCR
Springwater CA	2018-05-28	Chipping Sparrow	CHSP
Springwater CA	2018-05-28	Pileated Woodpecker	PIWO
Springwater CA	2018-05-28	Wood Duck	WODU
Springwater CA	2018-05-28	Cedar Waxwing	CEDW
Springwater CA	2018-05-28	Blue Jay	BLJA
Springwater CA	2018-05-28	Northern Flicker	NOFL
Springwater CA	2018-05-28	Black-capped Chickadee	BCCH
Springwater CA	2018-05-28	White-breasted Nuthatch	WBNU
Springwater CA	2018-05-28	Red-bellied Woodpecker	RBWO
Springwater CA	2018-05-28	Downy Woodpecker	DOWO
Springwater CA	2018-05-28	Broad-winged Hawk	BWHA
Springwater CA	2018-05-28	Yellow-throated Vireo	YTVI
Springwater CA	2018-05-28	Hairy Woodpecker	HAWO
Springwater CA	2018-05-28	Veery	VEER
Springwater CA	2018-05-28	Gray Catbird	GRCA

Springwater CA	2018-05-28	Tree Sparrow	TRES
Springwater CA	2018-05-28	Common Grackle	COGR
Springwater CA	2018-05-28	Scarlet Tanager	SCTA
Springwater CA	2018-05-28	Red-tailed Hawk	RTHA
Springwater CA	2018-05-28	Northern Waterthrush	NOWA
Springwater CA	2018-05-28	Yellow-bellied Sapsucker	YBSA
Springwater CA	2018-05-28	Ovenbird	OVEN
Springwater CA	2018-05-28	Hooded Warbler	HOWA
Springwater CA	2018-05-28	Louisiana Waterthrush	LOWA
Springwater CA	11-05-2019	American Crow	AMCR
Springwater CA	11-05-2019	American Goldfinch	AMGO
Springwater CA	11-05-2019	American Redstart	AMRE
Springwater CA	11-05-2019	American Robin	AMRO
Springwater CA	11-05-2019	Baltimore Oriole	BAOR
Springwater CA	11-05-2019	Barn Swallow	BARS
Springwater CA	11-05-2019	Barn Swallow	BARS
Springwater CA	11-05-2019	Black and White Warbler	BAWW
Springwater CA	11-05-2019	Black-capped Chickadee	BCCH
Springwater CA	11-05-2019	Belted Kingfisher	BEKI
Springwater CA	11-05-2019	Blue-Gray Gnatcatcher	BGGN
Springwater CA	11-05-2019	Brown-headed Cowbird	BHCO
Springwater CA	11-05-2019	Blue-headed Vireo	BHVI
Springwater CA	11-05-2019	Blackburnian Warbler	BLBW
Springwater CA	11-05-2019	Blackpoll Warbler	BLPW
Springwater CA	11-05-2019	Blue Jay	BLJA
Springwater CA	11-05-2019	Black-throated Blue Warbler	BTBW
Springwater CA	11-05-2019	Black-throated Green Warbler	BTNW
Springwater CA	11-05-2019	Canada Goose	CANG
Springwater CA	11-05-2019	Chipping Sparrow	CHSP
Springwater CA	11-05-2019	Common Grackle	COGR
Springwater CA	11-05-2019	Cooper's Hawk	COHA
Springwater CA	11-05-2019	Common Yellowthroat	COYE
Springwater CA	11-05-2019	Chestnut-sided Warbler	CSWA
Springwater CA	11-05-2019	Downy Woodpecker	DOWO
Springwater CA	11-05-2019	Eastern Kingbird	EAKI
Springwater CA	11-05-2019	Eastern Phoebe	EAPH
Springwater CA	11-05-2019	Eastern Meadowlark	EAME
Springwater CA	11-05-2019	European Starling	EUST
Springwater CA	11-05-2019	Great Blue Heron	GBHE
Springwater CA	11-05-2019	Great-crested Flycatcher	GCFL
Springwater CA	11-05-2019	Great-horned Owl	GHOW
Springwater CA	11-05-2019	Gray Catbird	GRCA
Springwater CA	11-05-2019	Grasshopper Sparrow	GRSP
Springwater CA	11-05-2019	Hairy Woodpecker	HAWO

Springwater CA	11-05-2019	House Finch	HOFI
Springwater CA	11-05-2019	House Wren	HOWR
Springwater CA	11-05-2019	Least Flycatcher	LEFL
Springwater CA	11-05-2019	Mallard	MALL
Springwater CA	11-05-2019	Magnolia Warbler	MAWA
Springwater CA	11-05-2019	Nashville Warbler	NAWA
Springwater CA	11-05-2019	Northern Cardinal	NOCA
Springwater CA	11-05-2019	Northern Flicker	NOFL
Springwater CA	11-05-2019	Northern Parula	NOPA
Springwater CA	11-05-2019	Northern Waterthrush	NOWA
Springwater CA	11-05-2019	Northern Rough-winged Swallow	NRWS
Springwater CA	11-05-2019	Ovenbird	OVEN
Springwater CA	11-05-2019	Osprey	OSPR
Springwater CA	11-05-2019	Palm Warbler	PAWA
Springwater CA	11-05-2019	Pine Siskin	PISI
Springwater CA	11-05-2019	Pine Warbler	PIWA
Springwater CA	11-05-2019	Pileated Woodpecker	PIWO
Springwater CA	11-05-2019	Rose-breasted Grosbeak	RBGR
Springwater CA	11-05-2019	Red-breasted Nuthatch	RBNU
Springwater CA	11-05-2019	Red-bellied Woodpecker	RBWO
Springwater CA	11-05-2019	Ruby-crowned Kinglet	RCKI
Springwater CA	11-05-2019	Red-eyed Vireo	REVI
Springwater CA	11-05-2019	Red-winged Blackbird	RWBL
Springwater CA	11-05-2019	Scarlet Tanager	SCTA
Springwater CA	11-05-2019	Song Sparrow	SOSP
Springwater CA	11-05-2019	Swamp Sparrow	SWSP
Springwater CA	11-05-2019	Veery	VEER
Springwater CA	11-05-2019	Warbling Vireo	WAVI
Springwater CA	11-05-2019	White-breasted Nuthatch	WBNU
Springwater CA	11-05-2019	Wood Duck	WODU
Springwater CA	11-05-2019	Wood Thrush	WOTH
Springwater CA	11-05-2019	Wood Thrush	WOTH
Springwater CA	11-05-2019	Wood Thrush	WOTH
Springwater CA	11-05-2019	Western Palm Warbler	WPWA
Springwater CA	11-05-2019	White-throated Sparrow	WTSP
Springwater CA	11-05-2019	Yellow-bellied Sapsucker	YBSA
Springwater CA	11-05-2019	Yellow Warbler	YEWA
Springwater CA	11-05-2019	Yellow-rumped Warbler	YRWA
Springwater CA	11-05-2019	Yellow-throated Vireo	YTVI
Springwater CA	2019-07-07	American Crow	AMCR
Springwater CA	2019-07-07	American Goldfinch	AMGO
Springwater CA	2019-07-07	American Robin	AMRO
Springwater CA	2019-07-07	Baltimore Oriole	BAOR
Springwater CA	2019-07-07	Barn Swallow	BARS

Springwater CA	2019-07-07	Black-billed Cuckoo	BBCU
Springwater CA	2019-07-07	Black-capped Chickadee	BCCH
Springwater CA	2019-07-07	Brown-headed Cowbird	BHCO
Springwater CA	2019-07-07	Blue Jay	BLJA
Springwater CA	2019-07-07	Cedar Waxwing	CEDW
Springwater CA	2019-07-07	Chipping Sparrow	CHSP
Springwater CA	2019-07-07	Common Grackle	COGR
Springwater CA	2019-07-07	Cooper's Hawk	COHA
Springwater CA	2019-07-07	Common Yellowthroat	COYE
Springwater CA	2019-07-07	Downy Woodpecker	DOWO
Springwater CA	2019-07-07	Eastern Kingbird	EAKI
Springwater CA	2019-07-07	Eastern Phoebe	EAPH
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	Eastern Wood-pewee	EAWP
Springwater CA	2019-07-07	European Starling	EUST
Springwater CA	2019-07-07	Great-crested Flycatcher	GCFL
Springwater CA	2019-07-07	Gray Catbird	GRCA
Springwater CA	2019-07-07	Hairy Woodpecker	HAWO
Springwater CA	2019-07-07	Hooded Warbler	HOWA
Springwater CA	2019-07-07	Indigo Bunting	INBU
Springwater CA	2019-07-07	Killdeer	KILL
Springwater CA	2019-07-07	Mourning Dove	MODO
Springwater CA	2019-07-07	Northern Cardinal	NOCA
Springwater CA	2019-07-07	Northern Flicker	NOFL
Springwater CA	2019-07-07	Pine Warbler	PIWA
Springwater CA	2019-07-07	Pileated Woodpecker	PIWO
Springwater CA	2019-07-07	Rose-breasted Grosbeak	RBGR
Springwater CA	2019-07-07	Red-bellied Woodpecker	RBWO
Springwater CA	2019-07-07	Red-eyed Vireo	REVI
Springwater CA	2019-07-07	Ruby-throated Hummingbird	RTHU
Springwater CA	2019-07-07	Red-winged Blackbird	RWBL
Springwater CA	2019-07-07	Scarlet Tanager	SCTA
Springwater CA	2019-07-07	Song Sparrow	SOSP
Springwater CA	2019-07-07	Swamp Sparrow	SWSP

Springwater CA	2019-07-07	Veery	VEER
Springwater CA	2019-07-07	Warbling Vireo	WAVI
Springwater CA	2019-07-07	White-breasted Nuthatch	WBNU
Springwater CA	2019-07-07	Wood Thrush	WOTH
Springwater CA	2019-07-07	Wood Thrush	WOTH
Springwater CA	2019-07-07	Wood Thrush	WOTH
Springwater CA	2019-07-07	Yellow-bellied Sapsucker	YBSA
Springwater CA	2019-07-07	Yellow Warbler	YEWA
Springwater CA	2019-07-07	Yellow-throated Vireo	YTVI

REPORT LM 02 / 2021 : To The Land Management Committee

FROM: Dusty Underhill, Conservation Areas Supervisor

SUBJECT: Wildlife Co-Management Program

DATE: April 14, 2021

Purpose:

To update the members on the results of the 2020-2021 Wildlife Co-Management Program, and approve the proposed Wildlife Co-Management Program for 2021-2022.

Background:

In late 2018, Land Management Committee approved a wildlife management pilot project in partnership with the Aylmer District Trapper's Council (ADTC) for Springwater Conservation Area. The initial pilot project demonstrated that raccoons on CCCA properties can be safely, humanely, and sustainably harvested and meet the conservation objective of a reduction in human-wildlife interactions of habituated racoons.

In 2019, the Land Management Committee approved the expansion of the Wildlife Co-Management Project partnership to four additional properties (Hawkins Tract, Johnson Tract and Calton Swamp Complex) throughout the 2019-2020 season. The project was renewed again in 2020-2021.

Current Status:

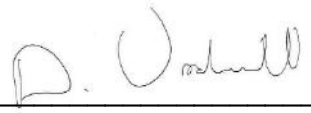
Attached to this staff report is the Wildlife Co-Management Program report from the 2020-2021 season. The report includes details on species, locations, known individuals and number of animals harvested is presented.

Additional observations are included in the report for your consideration.

CCCA staff and the ADTC recommend a continuation of the Wildlife Co-Management Program into 2021-2022. This will include a similar raccoon population and activity assessment and data analysis to that of previous seasons, as well as harvest of raccoon befitting the needs of the CCCA and landscape. Additionally, it is the recommendation of ADTC that muskrat populations within the Calton Swamp Complex should continue to be monitored and managed, as necessary.

Recommendation:

THAT the members recommend to the Full Authority that the proposed Wildlife Co-Management Program for 2021-2022 be approved as presented.



Dusty Underhill
Conservation Areas Supervisor

2020-2021 CCCA/ADTC Wildlife Co-Management Plan Report

Prepared for:

The Catfish Creek Conservation Authority

Prepared by:

Shaun Meehan
Secretary, Aylmer District Trapper's Council

On behalf of:

The Aylmer District Trapper's Council

Contents

SUMMARY

Using pre-season population monitoring techniques, the Aylmer District Trapper's Council (ADTC) was able to confidently assess the on-site raccoon population and determine suitable harvest levels of raccoon from each pre-determined property. Similarly, where muskrats were of concern, a lengthy walkthrough and assessment of relevant areas allowed ADTC trappers to ascertain the need to mitigate any surrounding landscape damage. The ADTC applied moderate harvest levels to ensure sustainability and balance the need to manage wildlife with those other needs unique to a conservation authority (CA), such as wildlife viewing opportunities. In addition, the ADTC feels that by operating with increased harvest rates, we were able to get ahead of what appears to be a continuation of a local distemper outbreak, limiting disease transmission rates within the CCCA properties and preserving the local population.

DETAIL

The needs of the 2020-2021 operating season were broken down into the management of two species, those being raccoon for the purpose of assisting struggling prey species, and muskrat for the purpose of mitigating damage to critical landscape and infrastructure. With trappers now having more experience with the properties, the ADTC was focused more keenly on identifying critical land features for target species to increase efficiency.

Raccoon Management

Of the sites predetermined for raccoon management, all shared similar raccoon levels of raccoon activity during the 2019-2020 program. This assessment was accomplished by utilizing trail cameras mounted on trees positioned to monitor bait sites. These bait sites were constructed of heavy five-gallon buckets with secure lids which were filled with a mixture of dog food as bait and liquid hickory smoke as an attractant. These buckets were then laid on their side and wired securely to a heavy anchor point to prevent raccoons and other animals from inadvertently relocating the bait. Access to the food was made possible via two small holes, one in the lid and one in the bottom of the bucket, which were large enough to only allow a single hand to reach in at a time. Pre-baiting was reduced in duration from that done in 2019-2020 to one week prior to the week of trapping. This reduced trapper time on site, reduced overall program costs, and made trapping activities more inconspicuous.

While sustainability remained at the forefront of the 2020-2021 program, increased trapping pressure was determined to be appropriate to accomplish the program's purpose to reduce the raccoon population and increase nesting success rates of prey species.

Trappers from within the Aylmer district reported a marked decrease in the raccoon population, voicing concerns over the continued presence of distemper among raccoons. CCCA properties were not found to have undergone a similar decline due to recent management practices. The ADTC feels that the increase in applied trapping pressure during the 2020-2021 program will further serve to protect the health of the raccoon population by reducing density and limiting transmission while more effectively accomplishing the program goals.

Muskrat Management

Unlike our efforts regarding raccoon, muskrat management is focused on a single site, being the sections of the Calton Swamp Complex (CSC) owned by the CCCA.

Given the existing public hunting opportunities within the CSC, it was determined that trapping should not commence until the closure of hunting seasons of which the CSC has permitted public access for the purpose of hunting.

Similar to last year, suitable ice arrived late in the season. While huts were present on the CA owned sections of the marsh, due to the prevalence of open water and the abundance of mink sign, no trapping occurred. It has been the experience of the ADTC on this site that late ice and surplus mink rapidly reduce the muskrat population during open water conditions and that trapping through late ice in this particular circumstance is neither productive nor in the best interest of sustainability. It is the recommendation of the ADTC that some consideration be given to addressing the growing mink population as muskrats are not their sole prey.

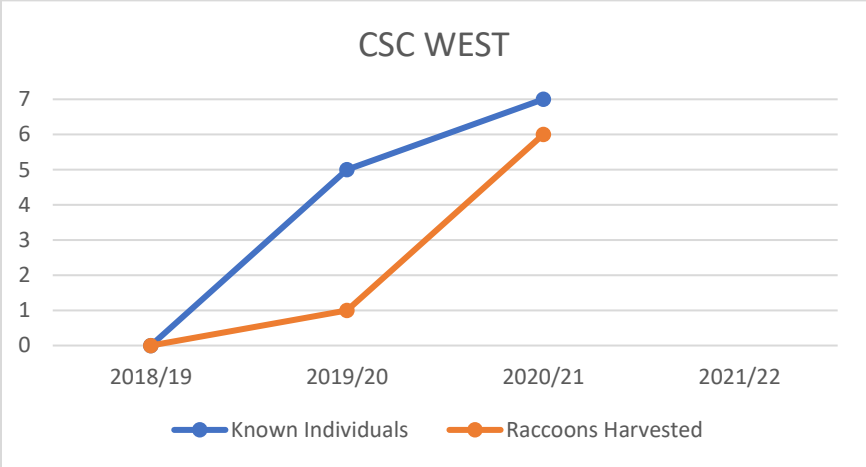
As was the case during the 2019-2020 program, most destructive muskrat activity was present along the OMNRF owned berm.

SITE LOCATIONS AND DATA TABLES

Calton Swamp Complex West

CSC West

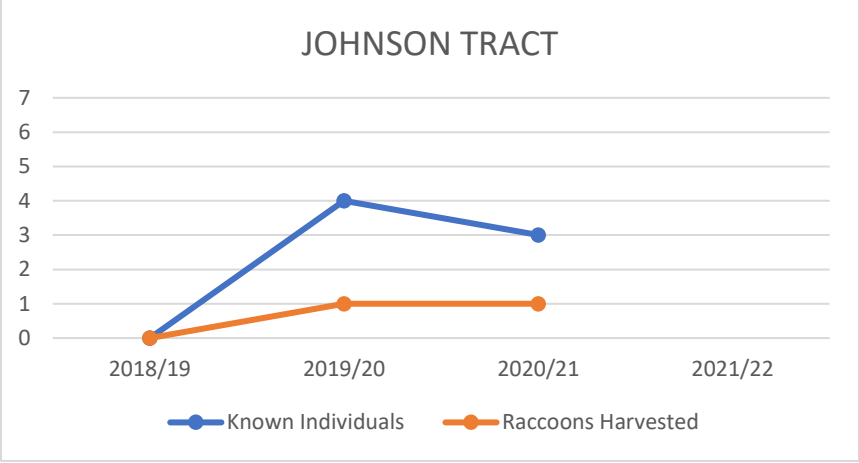
	2018/19	2019/20	2020/21	2021/22
Known Individuals	0	5	7	
Raccoons Harvested	0	1	6	



Johnson Tract

Johnson Tract

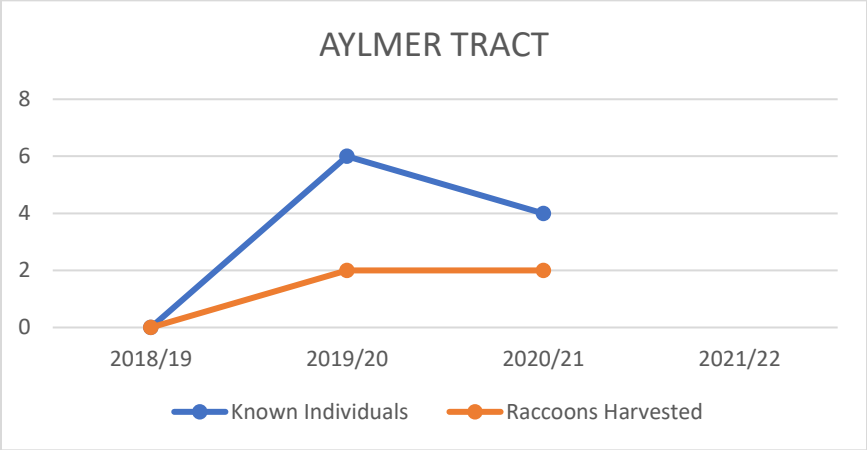
	2018/19	2019/20	2020/21	2021/22
Known Individuals	0	4	3	
Raccoons Harvested	0	1	1	



Aylmer Tract

Aylmer Tract

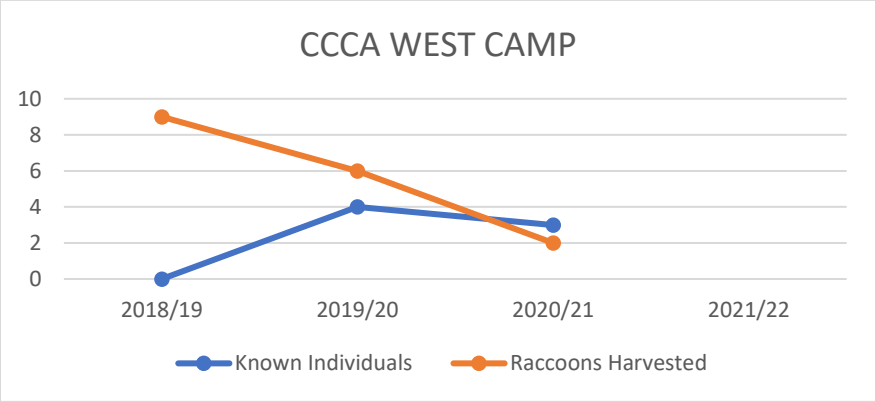
	2018/19	2019/20	2020/21	2021/22
Known Individuals	0	6	4	
Raccoons Harvested	0	2	2	



CCCA West Campground

CCCA West Camp

	2018/19	2019/20	2020/21	2021/22
Known Individuals	0	4	3	
Raccoons Harvested	9	6	2	



SITE OBSERVATIONS

Johnson Tract

The Johnson Tract continues to see use by individuals with single and two track motorized vehicles, presumably dirt bikes and ATV's. Access to key features within the Johnson Tract continues to be problematic. The ADTC feels a greater population lies deeper within the property boundaries and intends to seek permission to access the site via a private road to the northeast. The ADTC feels the population and harvest data is a poor representation of the site and more accurate information can be obtained.

Calton Swamp Complex West

During trapping activities, the assigned trapper (Shaun Meehan) was met by an OMNRF Officer. An inspection of appropriate paperwork as well as a site inspection occurred. All paperwork and trapping practices were found to be in accordance with the OFWCA and no warnings were given, and no charges were laid. Also of note was a shift in site location from the ponds to a small drainage ditch. While the individual raccoons identified compared to the number harvested may seem excessive, the Calton Swamp Complex is a large property with many features appealing to raccoons. A harvest of this quantity should not adversely impact the complex.

CCCA West Campground

Harvest data appears to demonstrate a continued decline of raccoon on site, purposely done so to reduce human/wildlife conflict. The ADTC is seeking staff input on their experiences regarding the efficacy of site management.

RECOMMENDATIONS

The ADTC recommends a continuation of the CCCA/ADTC Wildlife Co-Management Program into 2021-2022. This includes a similar raccoon population and activity assessment to that of the 2020-2021 season and a comparison of that data, as well as the harvest of raccoon befitting the needs of the CCCA and landscape. Additionally, muskrat populations within the CSC should continue to be monitored and managed, as necessary.

CONCLUSION

The ADTC feels positive about the 2020-2021 CCCA/ADTC Wildlife Co-Management Program results. We feel that we have continued to demonstrate that we can safely, humanely, and responsibly manage surplus furbearer species and assist the CCCA in accomplishing their goals of preserving and promoting wild spaces and their inhabitants within the Catfish Creek Watershed. The ADTC appreciates the opportunity to contribute to conservation and species recovery by applying their expertise in conjunction with the CCCA and looks forward to future opportunities to assist the CCCA in meeting their goals.

Report LM 03 / 2021 : To The Land Management Committee

FROM: Christopher Wilkinson, General Manager / Secretary - Treasurer

SUBJECT: Ontario Birds at Risk Research Request

DATE: April 14, 2021

Purpose:

To consider a request from Ontario Birds at Risk to undertake a research project at various CCCA owned properties.

Discussion:

On April 7th 2021, the Catfish Creek Conservation Authority (CCCA) received a request from Forest Birds at Risk to do a five month forest survey at Springwater Forest, Calton Swamp, Yarmouth Natural Heritage Area, and Archie Coulter Conservation Area.

The purpose of the Forest Birds at Risk surveys are to research and document:

1) the current occupancy and to estimate abundance of Acadian Flycatcher, Cerulean Warbler, Louisiana Waterthrush, Prothonotary Warbler, and Red-headed Woodpecker;
2) the risks at occupied and potentially occupied sites (so that they can be addressed as quickly as possible).

Recommendation:

THAT, the Land Management Committee recommend to the Full Authority that a Research Permit be issued to Ontario Birds at Risk to undertake a research project at various CCCA owned properties.

Christopher Wilkinson
General Manager / Secretary-Treasurer

REPORT LM 04 / 2021 : To The Land Management Committee

FROM: Christopher Wilkinson, General Manager / Secretary - Treasurer

SUBJECT: TVDSB Land Use Agreement

DATE: April 22, 2021

Purpose:

To seek approval for a five-year renewal of the Land Use Agreement with the Thames Valley District School Board (TVDSB).

Background:

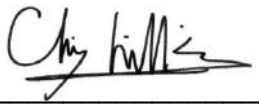
Since 2011, TVDSB and CCCA have an agreement granting permission to use the Conservation Lands for the purpose of conducting general education programs, field studies, and activities connected with the environment. The Conservation Lands include Springwater Forest, Jaffa Tract, Archie Coulter Conservation Area, and the Yarmouth Natural Heritage Area.

Current Status:

The current agreement expires on August 31, 2021 prior to the next Land Management Committee meeting. The agreement does not change the properties or uses. The agreement renews the permissions for 5 years until August 31, 2026 and includes a 1.5% annual increase for the cost of living adjustment.

Recommendation:

THAT the members recommend to the Full Authority that the Land Use Agreement with TVDSB be renewed for five years.



Christopher Wilkinson
General Manager / Secretary-Treasurer

REPORT LM 05 / 2021 : To The Land Management Committee

FROM: Christopher Wilkinson, General Manager / Secretary-Treasurer

SUBJECT: YNHA Controlled Hunt

DATE: April 14, 2021

Purpose:

To consider allowing a controlled hunt at the Yarmouth Natural Heritage Area (YNHA) in 2021.

Discussion:

In 2014, the Catfish Creek Conservation Authority (CCCA) purchased 45.5 acres of environmentally significant land from Gotzmeister Farms adjoining the Yarmouth Natural Heritage Area (YNHA).

The former owners of the property granted permission to certain individuals and groups to hunt on this property in the past. Report LM 08 / 2015 (attached) summarized the direction approved by the Board for Hunting at YNHA.

Although recreational hunting does not conform with the YNHA Management Plan, controlled hunts are in scope and have been used successfully by the CCCA since 2014 in order to help manage the deer population and protect saplings planted in the YNHA. In 2020 over 1000 American Chestnut samplings were planted at YNHA.

The controlled hunt area is the 45.5 acres purchased from Gotzmeister Farms and as shown on the attached map.

Successful controlled hunts were coordinated in 2019 and 2020 by Mr. Dean Kitts and Mr. Glen Debrabandere. A total of two (2) deer were harvested in 2019, and zero (0) deer harvested from YNHA in 2020.

A community member, Leo Brower emailed the General Manager requesting permission to hunt the first hunt during the 1st week of November. The email thread is attached for the consideration of the Board. Mr. Brower indicates that the former General Manager of CCCA had provided written permission to hunt in 2015, although no records exist at CCCA or from Mr. Brower. To support the permission missing letter, Mr. Brower provided the letter from Dan Gotzmeister, one of the sons of the original donor of the property. The emailindiactes he had permission to hunt the property in the past (attached).

Staff indicate the permissions in 2015 are related to ongoing wildlife conservation needs. Additionally, staff indicate potential safety issues with hunting at the first week of November due to the nicer weather and significant increase in users seen this year at

YNHA. Additionally, staff resources to support the controlled hunt in November are scarce and the Authority has other priorities such as tree planting and the completion of stewardship projects.

Staff recommend that public requesting to hunt CCCA lands should be directed to Long Point Region Conservation Authority where recreational deer hunting is permitted, or the CCCA Calton Swamp property along Carter Road where Small Game can be harvested during the appropriate open seasons.

Staff are suggesting that a controlled hunt be authorized in 2021 in accordance with the following terms and conditions.

- Hunting will be limited to the group headed by Mr. Glen Debrabandere for the 2nd hunt week;
- Hunting will be limited to the group headed by Mr. Dean Kitts on the 3rd hunt week;
- All hunters must have OFAH numbers for insurance purposes;
- All hunting activities will be carried out during the week and for one (1) day only;
- The group leader will provide the date of the hunt, and a list of the group members, and the group members OFAH numbers to the Conservation Authority office (in person, or email to generalmanager@catfishcreek.ca) prior to the commencement of the controlled hunt;
- The CCCA reserves the right to modify the date of the controlled hunt should it coincide with Authority programs;
- No vehicles will be permitted access to the YNHA unless it is an emergency, or unless written permission is granted by the General Manager / Secretary – Treasurer for the specific purpose;
- Controlled hunt in progress signage will be posted at the main access gates the night before hunting.
- The CCCA will notify the Conservation Officers at the Ministry of Natural Resources and Forestry of the days the hunt is to occur;
- The CCCA will provide a property map indicating the limits of the controlled hunting area (see attached map);

Staff will revisit the granted permission with the Land Management Committee for controlled hunt at YNHA at the first Land Management Committee meeting in 2022.

Recommendation:

THAT, the Land Management Committee recommend to the Full Authority that a controlled hunt be authorized at the Yarmouth Natural Heritage Area in 2021 in accordance with the terms and conditions outlined in Report LM 05 / 2021.

Christopher Wilkinson
General Manager / Secretary-Treasurer

Report LM 08 / 2015: To The Land Management Committee

FROM: Kim Smale, General Manager / Secretary - Treasurer

SUBJECT: YNHA Land Use Policies

DATE: May 5, 2015

PURPOSE:

To provide direction on two (2) land use issues at the Yarmouth Natural Heritage Area.

DISCUSSION:

In 2014, the Catfish Creek Conservation Authority (CCCA) purchased 45.5 acres of environmentally significant land from Gotzmeister Farms adjourning the Yarmouth Natural Heritage Area (YNHA).

The former owners of the property granted permission to certain individuals and groups to hunt on this property in the past along with allowing ATV riding by family members. The General Manager / Secretary-Treasurer presented a Preliminary Report on this matter at the November Land Management Committee meeting where it was decided to have staff investigate the impacts and report back to the Committee.

The Yarmouth Natural Heritage Area Management Plan provides the following direction regarding these two (2) land use activities.

Motorized Vehicles / Trail Bikes

As a result of historical damage to the property, conflicts with permitted uses and potential for impacts to adjacent properties, the use of motorized vehicles / bikes will not be permitted. Such vehicles may be required and operated by staff or agents of the CCCA in executing its duties and management of the YNHA.

Hunting and Trapping

Hunting and trapping do not conform with management objectives and may conflict with other permitted uses of the property. Recreational hunting and trapping will be excluded from the property. Provisions may be developed to allow these activities only as a management tool to control wildlife and nuisance animal populations which may impact habitat or vegetation communities. Hunting and trapping, if deemed necessary to protect property values, will be authorized by the CCCA in consultation with other regulatory agencies.

The following course of action is being proposed by the CCCA staff regarding ATV riding and hunting at the Yarmouth Natural Heritage Area (YNHA).

- Sign and block all unauthorized trails to prohibit the use of motorized vehicles/trail bikes at the YNHA.
- Meet with the spokesmen for the two groups which have historically hunted on the YNHA during the 3rd week of November (Peter Koolen) and the 1st week of December (Dean Kitts) to discuss a controlled hunt in 2015 to help manage the deer population in accordance with the YNHA Management Plan.

RECOMMENDATION:

THAT, the Land Management Committee recommend to the Full Authority that the course of action regarding Motorized Vehicles/Trail Bikes and Hunting at the Yarmouth Natural Heritage Area, be adopted as presented in Report LM 08/2015.

Kim Smale
General Manager / Secretary - Treasurer

YNHA Controlled Hunt - 2018

Legend

Hunting Prohibited

Controlled Hunt Area 2018

0 0.25 0.5 Kilometers

From: leo broer
To: Chris Wilkinson
Cc: Dusty Underhill
Subject: Re: Hunting conservation.
Date: April 12, 2021 12:51:32 PM

The letter that was given to us was a part of wildlife management for the conservation area. As far as i was made aware.

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From: leo broer <yahitsahemi@hotmail.com>
Sent: Monday, April 12, 2021 12:14:38 PM
To: Chris Wilkinson <generalmanager@catfishcreek.ca>
Cc: Dusty Underhill <properties@catfishcreek.ca>
Subject: Re: Hunting conservation.

We only wver hunted the field at the bottom and the hillside to the east and west of the bottom field. That would be the only location that we would be seeking again.
We got the letter from Kim at the springwater office for permission because we had always hunted there and were told from gotsmeisters that it was now conservation land. The year that we had permission to hunt it while it was conservation was the same year all the trees were being planted in the bottom field. As the workers planting them had to leave when we came to hunt it.

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From: Chris Wilkinson <generalmanager@catfishcreek.ca>
Sent: Monday, April 12, 2021 12:03:24 PM
To: leo broer <yahitsahemi@hotmail.com>
Cc: Dusty Underhill <properties@catfishcreek.ca>
Subject: RE: Hunting conservation.

Hi Leo,

I am writing to confirm I received the image of the letter signed by Dan Gotzmeister.

It seems this letter is related to the historic permissions and is different than the permission obtained from CCCA a few years ago (the hand written letter)? Do you remember why you were provided permission a few years ago – perhaps as part of a wildlife management requirement? I should distinguish this for the Board.

In addition, can you clarify the area you want to hunt? The field is the only area where hunting has historically been allowed.

I will bring a report to the committee with your email request. As sent previously, only the second and third weeks were approved by the Board in the past at the time of the land sale in 2016, hence

my question around the reason for the permissions provided a few years ago.

Thanks,
Chris

From: leo broer [mailto:yahitsahemi@hotmail.com]
Sent: April 6, 2021 8:26 PM
To: Chris Wilkinson <generalmanager@catfishcreek.ca>
Subject: Re: Hunting conservation.

Dan Gotsmeister has willingly agreed to write us a letter which i will have this week stating that the Ostrander group has had permission for many years to hunt his families land which included the bottom field. If needed Barb Ostrander can also write a letter stating that we obtained written permissoon from Catfish Creek a few years ago to hunt the bottom field during the first controlled hunt.

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From: Chris Wilkinson <generalmanager@catfishcreek.ca>
Sent: Wednesday, March 17, 2021 9:22:14 AM
To: leo broer <yahitsahemi@hotmail.com>
Cc: Dusty Underhill <properties@catfishcreek.ca>
Subject: RE: Hunting conservation.

Hi Again Leo,

I've been digging through the files. See attached.

The board reports and minutes indicate that Koolen (3rd hunt) and Kitts (2nd hunt) were provided with permission.
I'm not sure how to proceed from here without any documentation re. permissions for Ostrander the fist week.

What about speaking with Dan Gotzmeister - Perhaps he can provide a letter re. historic permissions that can be run through our Board of Directors.

Thanks,
Chris

From: leo broer [mailto:yahitsahemi@hotmail.com]
Sent: March 16, 2021 1:54 PM
To: Chris Wilkinson <generalmanager@catfishcreek.ca>
Subject: Re: Hunting conservation.

We do not have a copy. I have asked. I saw it myself as Barbara Ostrander and Jeannie Ferguson went there themselves at got it from Kim. It was on a lined piece of paper and not on any letterhead.

Get Outlook for Android

From: Chris Wilkinson <generalmanager@catfishcreek.ca>
Sent: Tuesday, March 16, 2021 1:49:49 PM
To: leo broer <yahitsahemi@hotmail.com>
Subject: RE: Hunting conservation.

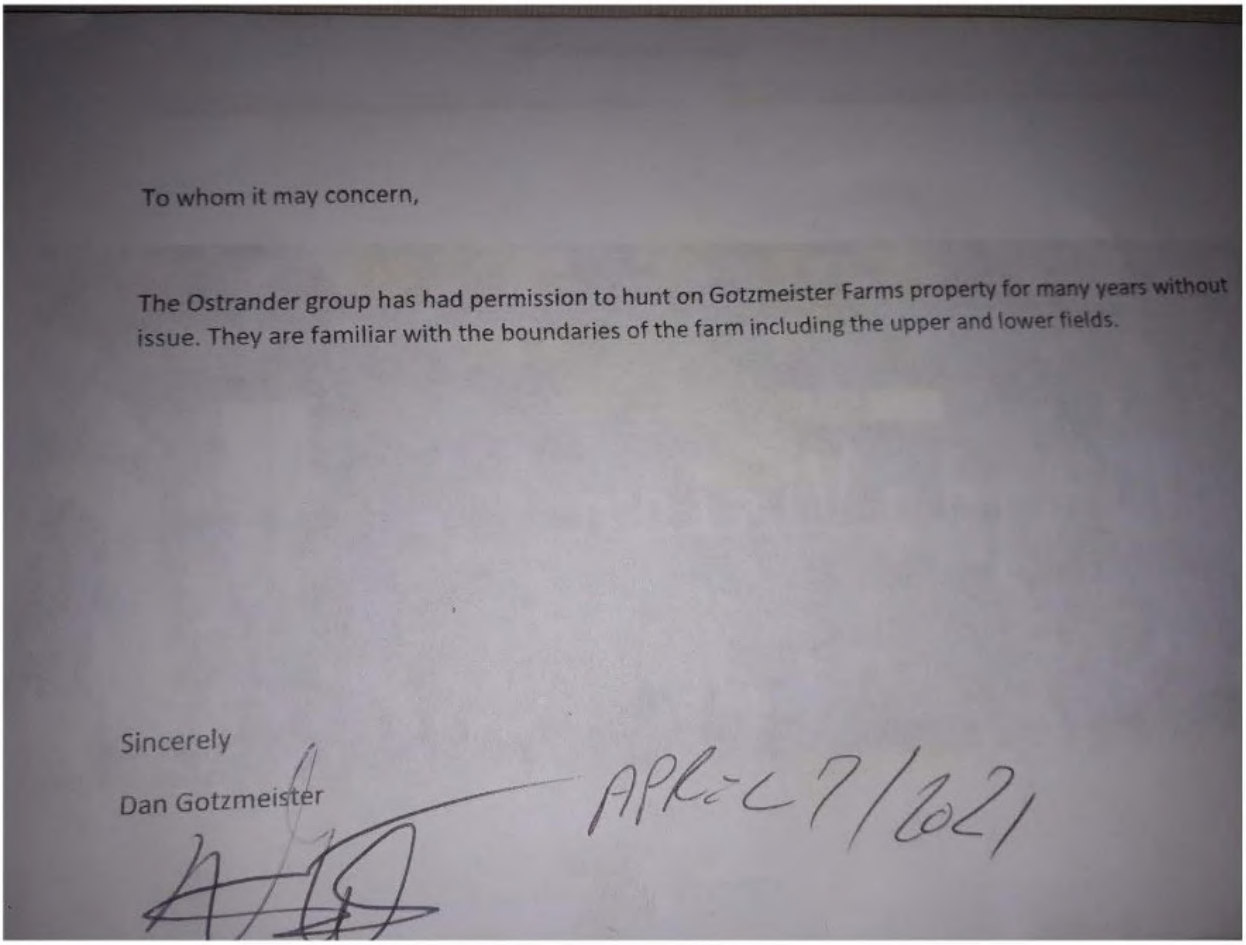
Thanks Leo. I will take this to Land Management in May.

I just spent some time looking through the Yarmouth file. I do not see a letter in there from Kim to yourself or anyone else re. hunting permissions. Do you happen to have a copy?

Thanks and talk soon,
Chris

From: leo broer [mailto:yahitsahemi@hotmail.com]
Sent: March 16, 2021 10:05 AM
To: Chris Wilkinson <generalmanager@catfishcreek.ca>
Subject: Hunting conservation.

Morning Chris, it has been awhile since i last asked permission to resume hunting in kebbels conservation area.
I can give you all the background you need to resubmit a request to hunt it this year in the first controlled muzzleloader hunt.
I have been a part of the Ostrander hunting group since 1999. We hunted gotsmeisters farm on both sides of pulley road, which included the bottom field which is now part of Kebbel conservation area. When it becane conservation land we received a letter from Kim, forgot last name, to continue hunting the bottom field during the controlled hunt. It was obtained by Barbara Ostrander. The Ostrander hunt group hunts from the farm on the bend of pulley road beside Gotsmeisters farm.
As well as muzzleloader hunting what us now conservation land we also bowhunted there every year. Myself especially. I also hunted the pines behind the main farm house and the bottom pond area which are all conservation now as well.
It would be an extreme pleasure to continue to have permission to hunt Kebbels Conservation area as many great memories of past years were made there. I am full aware of any land boundaries and land features. We are safe hunters who follow all safety and ethical hunting practices.
Just to reiterate, I am applying to hunt the Kebbel Conservation Area for the first muzzleloader controlled hunt for deer.
Thanks for your time and consideration.
Leo Broer
519 614 2063.



To whom it may concern,

The Ostrander group has had permission to hunt on Gotzmeister Farms property for many years without issue. They are familiar with the boundaries of the farm including the upper and lower fields.

Sincerely

Dan Gotzmeister

April 7/2021