

Report to the Municipality of Chatham-Kent Natural Heritage Committee of the Whole

Subject: Conservation Authorities Land Stewardship Programs 2014-Present

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Summary:

The following report summarizes the stewardship programs of the Lower Thames Valley and St Clair Region Conservation Authorities in the Municipality of Chatham-Kent.

Species at Risk restoration, innovative agricultural programs aimed at more efficient and sustainable farming practices, tree planting, wetland restorations and tall grass prairie plantings are some of the elements of these programs. In support of this work, Conservation Authorities monitor watercourses, test new approaches and provide results to the community. Additionally, through education and outreach, members of the community engage in this work.

It requires funds to complete this work, and in order to get those funds Conservation Authorities use funding from the Municipality of Chatham-Kent as seed money to match to grants and donations available from a variety of sources. This means that the total municipal funds are multiplied many times to support the extensive services offered within the municipality.

Specific details of the programs offered and the funding used, are provided in the following report and a presentation to be given to council on November 29, 2021, regarding these details.

Natural Heritage Stewardship and Conservation Authorities:

Background

The objects of every authority are to “establish and undertake, in the area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources other than gas, oil, coal and minerals.” (Conservation Authorities Act, Section 20.) In order to meet this object, Conservation Authorities’ programs include those to restore ecosystems, assist farmers and landowners with technical and financial support, provide the most current science and research to our landowner’s and use that research to position ourselves as the leader in habitat restoration. These programs directly support a number of goals defined within the Natural Heritage Strategy of the Municipality of Chatham-Kent.

Prior to European settlement this region had 3 main ecosystem types: Tall Grass Prairie, Carolinian Forest and Wetlands. Many of the example programs listed below work to conserve and restore these ecosystem types.

Species at Risk Program

There are over 100 fish species in LTVCA and 19 of these are Species at Risk. This is equal to 20% of the species present. Additionally, there are 36 mussel species in LTVCA and 14 of these are Species at Risk (SAR). This is equal to 39% of the species present. The LTVCA and SCRCA undertake significant aquatic and terrestrial Species at Risk Programs in the Municipality of Chatham-Kent. In the year 2021 funding of \$334,000 has been acquired to undertake this work in the Municipality of Chatham-Kent.

Programs include:

1. Threat assessment conducted for aquatic SAR in 55 sub-watersheds
2. Sub-watersheds prioritized to guide implementation of projects to benefit aquatic SAR
3. Landowner incentive programs
4. Restoration projects
5. Education and Outreach
6. Surveys and Research

It should be noted that SAR staff are engaged in support of the Municipality of Chatham-Kent Drainage department for the maintenance and construction of municipal drains. Examples include SAR staff providing support in undertaking fish rescue/relocations on the Drake Rd and the North Marsh drain systems.

Imagine McGregor

Allow citizens to 'Imagine what McGregor Creek can be'

Urban development and intensive agriculture have put added pressures on the aquatic systems of McGregor Creek by increasing surface water runoff, erosion and sedimentation within the watercourse. The resulting impacts have a significant effect on water, habitat quality and the natural experience enjoyed by residents of Chatham-Kent.

The completion of stream restoration projects in and along the reaches of the McGregor Creek can also have a direct influence on the water quality and habitat of the Thames River.

Imagine McGregor works with local citizens to improve their watershed. Major components of the project include:

1. Stewardship – Focus on returning to your roots (pun on caring for local area and agriculture) – working with residents to consider projects on their properties.
2. Technical Work – Watershed clean ups and restoration projects (e.g. tree plantings) to bolster land productivity and improve the watersheds ecology.
3. Community Engagement – examples: Webinar series- topics to include importance of native plants, incorporating them into your landscape, and largescale projects (potentially on natural history of the area), Radio ad for habitat facts- share some knowledge with local listeners and promote programs, and a youth environmental art show.

Agricultural Programs

In the Municipality of Chatham-Kent the LTVCA and SCRCA provide agricultural programs to:

1. Deliver Agricultural Incentive Programs to farmers to increase the adoption of Best Management Practices (BMPs) to:
 - Improve watershed soil health.
 - Reduce agriculturally sourced phosphorus (P) loads in the Thames River Basin.
2. Enhance sub watershed water quality monitoring operations to:
 - Regionally identify and validate the efficacy of BMP's.
 - Track watershed environmental performance (ex. CO-LEAP 40% P Reduction Target for Lake Erie).
3. To ensure robust locally collected data is informing provincial and federal policy decisions.

4. Share research and monitoring results with local farmers and policy makers to inform decision making.

Summary of LTVCA Agricultural Program funding		
	years	amount
McGregor and Jeanettes Creek Phosphorous Reduction Program	2018-2022	\$821,433.45
McGregor and Jeanettes Creek BMP Incentive Program	2019-2021	\$240,000
LTVCA Soil Health Program	2020-	\$163,662.60
On-Farm Applied Research Program	2019-2023	\$591,079.04
Living Labs Ontario	2020-2023	\$60,000
Canada-Ontario Agreement Great Lakes Water Quality	2020	\$77,700
Thames River Phosphorus Reduction Collaborative	2018-2022	60,000

ALUS Programs - Alternative Land Use Service

In the Municipality of Chatham-Kent the ALUS program was established in 2018. ALUS is an innovative community-developed and farmer-delivered program that produces, enhances and maintains ecosystem services on agricultural lands. It does this through supporting project establishment and providing annual payments to support the maintenance of these projects. The basis of the program is as follows:

1. Governed by a Project Advisory Committee (PAC) consisting of 15 members and a minimum of 50% farm producers.
2. Provides annual payments for each acre enrolled in the program.
3. Funds are for maintenance of the projects providing ecosystem service.

2019-2020 ALUS Chatham-Kent Statistics:

Active Participants with Established Projects: 56

Hectares restored/enrolled = 77

TOTAL Funds 2019-2020 (Non Municipal) = \$343,240

Summary of Deliverables from LTVCA Stewardship Projects

The following table summarizes the trees planted and reforestation efforts in the years 2014 to 2021:

LTVCA Historical Record for Chatham-Kent				
*86% OF TREES ARE OF NATIVE CAROLINIAN SPECIES ZONE 38 ORIGIN				
Private Lands				
Reforestation	Seedlings	Acres	Hectares	Public Lands
				Large potted trees
2014	56026	93	37.4	
2015	88176	147	58.8	500
2016	107235	179	71.5	800
2017	82885	138	55.3	3200
2018	44260	74	29.5	500
2019	45495	76	30.3	300
2020	63218	105	42.1	1016
2021	56264	94	37.5	1196
Totals 2014-2021	543,559	906	366	6,316

<u>St.Clair Region CA Restoration projects</u>	<u># trees</u>	<u>area</u>
2015	4200	2.1ha
2016	3810	1.9ha
2017	n/a	n/a
2018	2175	1.1ha
2019	6850	3.4ha
2020	10380	5.2ha
<u>totals</u>	<u>27,400</u>	<u>13.7ha</u>

The following table summarizes the area of wetland restoration in the years 2014 to 2021:

	Acres	Hectares
2014	210	84
2015	72	28.8
2016	55	22
2017	25	10
2018	33	13.2
2019	60	24
2021	31	12.4
2021	40	16
	526	212

The following table summarizes the area of Tall Grass Prairie Restoration in the years 2014 to 2021:

	Acres	Hectares
2014	45	18
2015	66	26.4
2016	37.5	15
2017	49	19.6
2018	50	20.0
2019	60	24.0
2020	131	52.4
2021	82	32.8
	520.5	210

In order to accomplish this work, staff use municipal levy as seed funding to apply for grants and donations to fund stewardship projects. The following table summarizes funding obtained for stewardship by the LTVCA in the years 2014 to 2021:

Funding Raised from 2014		\$ 9,130,000.00
2014	\$ 800,000.00	
2015	\$ 1,200,000.00	
2016	\$ 922,000.00	
2017	\$ 1,300,000.00	
2018	\$ 1,400,000.00	
2019	\$ 1,300,000.00	
2020	\$ 1,186,000.00	

2021	\$ 1,022,000.00	
Landowner contributions	\$ 1,005,370.00	
TOTAL FUNDING INPUT	\$ 10,135,370.00	

2021 summary:

Chatham-Kent General + Special Levy allocated to Stewardship=**\$202, 384.96**
Grants and donations (2021) **\$1,022,000.00**

Equals **\$1 to \$5 ratio**

LTVCA newly donated Conservation Area Lands in CK

Significant donations are made to the LTVCA to support conservation efforts within the Municipality of Chatham-Kent. Additionally, many landowners donate lands in efforts to conserve and create living legacies for the people of Chatham-Kent. The following lists the lands donated to the LTVCA in the years 2011 to 2021:

Recently donated LTVCA Conservation Areas			
	type	year	size
Merlin Conservation Area	restoration site-trees, trail, prairie	2011	2.8 ha
Stirling Conservation Area	Provincially Significant Wetland	2011	8.1 ha
Courey Islands	Provincially Significant Wetland	2015	52.6ha
Myslik Conservation Area	restoration site- trees, wetlands, prairie	2015	40.5 ha
Skakel Conservation Area	future site of McKinlay Memorial Forest	2016	22.3ha
Ward Conservation Area	wetlands, prairie, Carolinian Forest	2018	9.7ha
Kenesserie Tall Grass Prairie	Tall Grass Prairie and Wetland cell	2018	4.9ha
Ashton Forest Conservation Area	Carolinian Forest-SAR Butternut	2020	10.5ha

SCRCA newly donated Conservation Area Lands in CK

- Peers Wetland (Wallaceburg)- 12 hectares
- Keith MacLean CA- 130 hectares
- Bates CA-229.6 hectares

The above represents a total of 523 hectares of donated lands at 11 new Conservation Areas. Additionally, this represents an approximate value of over **\$9 million dollars**.

Education & Outreach

The LTVCA & SCRCA actively engage farmers, municipal councils and the general public to share information about watershed initiatives and research results. The work is done in a number of ways including webinars, tours, presentations, one on one meetings and demonstrations. Every year residents are given opportunities to learn about stewardship, and with that learning, become involved in improving their communities. The pandemic has challenged us in providing these opportunities but with new ideas and practices, the outreach continues.

The 2021 Cultivating Conservation Tour was held in September. This allowed the public the ability to tour 4 sites of significance across the watershed and to learn and see examples of:

- Wetland and Native Grassland restoration
- Tree Plantings
- Woodlot Management
- Urban Low Impact Development
- Soil Health and Water Quality Demonstrations & Results
- Tour ended at Red Barn Brewery with guest speaker

Conclusion

In summary, the LTVCA and SCRCA continue to deliver and offer financial incentives to both the rural and urban community, for restoration of our natural areas. These programs are very well utilized, with strong uptake and interest. It is the Conservation Authority staff that seek out these grant programs and bring the financial partners to our community.