

Annual Report 2018



Our Vision

"A healthy and sustainable natural environment in the St. Clair Region"

Our Mission

"The St. Clair Region Conservation Authority has as its mission, to provide leadership through coordination of watershed planning, implementation of resource management programs and promotion of conservation awareness, in cooperation with others."

Our Goals

1. Develop and maintain programs that will protect life and property from natural hazards such as flooding and erosion.
2. Protect, manage, and restore our natural systems including woodlands, wetlands, waterways, and lakes.
3. Provide recreation and education opportunities for the public to enjoy and learn from our natural environment.
4. Build a stronger and more valued organization through business excellence.

Who Are We?

The St. Clair Region Conservation Authority (SCRCA) was established in 1961 under the *Conservation Authorities Act* to conserve, restore and manage renewable natural resources within the Sydenham River watershed and the smaller watersheds draining directly into southern Lake Huron, the St. Clair River, and northeastern Lake St. Clair.

The SCRCA operates under the direction of a Board of Directors appointed by our 17 member municipalities and implements programs to:

- reduce the risk to life and property from flooding and erosion;
- promote water and land stewardship;
- provide outdoor recreation opportunities, and
- increase environmental awareness and literacy through conservation education.

Our Watershed

4,130 km²

14 subwatersheds

16 municipalities

1 regional municipality

2 counties

Population - 167,000



A Message from Our Chair



At the St. Clair Region Conservation Authority, our programs and services are focused on achieving our vision of a healthy and sustainable environment. 2018 was no exception. Many notable events and accomplishments were achieved over the last 365 days as a result of the hard work and dedication of our Board of Directors, staff and partner organizations.

The year began with the operation of the McKeough Floodway, the first time since 2009, to help protect the town of Wallaceburg from the February floodwaters.

We experienced changes in our provincial and municipal governments and navigated through the implementation of a newly amended *Conservation Authorities Act*. Despite the uncertainties associated with these events, our strong direction and focus, as outlined in our Strategic Plan, allowed us to successfully continue serving our member municipalities and communities in an efficient, effective, and fiscally responsible manner.

Our accomplishments in 2018 would not have been possible without the support of our partner organizations and agencies. The SCRCA is grateful for the new and long-standing partnerships we have forged and together we look forward to our continued collaboration and success.

A handwritten signature in blue ink, appearing to read "Steve Arnold".

Steve Arnold
Chair, Board of Directors

Our Board of Directors

The Conservation Authority is governed by a Board of Directors appointed by the 17 member municipalities within its jurisdiction. The Board is responsible for establishing the policy and procedures under which the SCRCA operates. Our Board Members provide an important link between our organization and the municipalities we serve.

Board Members:

Betty Ann MacKinnon, Township of Adelaide Metcalfe
Frank Nemcek, Municipality of Brooke-Alvinston
Joe Faas, Municipality of Chatham-Kent
Jeff Wesley, Municipality of Chatham-Kent
Alan Broad, Township of Dawn-Euphemia
Kevin Marriott, Township of Enniskillen/Village of Oil Springs
Gerry Rupke, Municipality of Lambton Shores
Dan McMillan, Municipality of Middlesex Centre
John McCharles, Town of Petrolia
Muriel Wright, Town of Plympton-Wyoming
Larry Gordon, Village of Point Edward
Mike Kelch, City of Sarnia
Cindy Scholten, City of Sarnia
Andy Bruziewicz, City of Sarnia
Diane Brewer, Municipality of SW Middlesex/Village of Newbury
Steve Arnold, Township of St. Clair
Steve Miller, Township of St. Clair
Norm Giffen, Municipality of Strathroy-Caradoc
Tony Bruinink, Municipality of Strathroy-Caradoc
Jerry Westgate, Township of Warwick



Executive Committee:

Steve Arnold, Chair
Andy Bruziewicz, Vice Chair
Tony Bruinink
Joe Faas
Norm Giffen
Larry Gordon
Mike Kelch
Betty Ann MacKinnon
Muriel Wright

The SCRCA Board of Directors met six times in 2018 and participated in our annual project tour. The annual event provides Board Members, municipal representatives, and project partners the opportunity to visit current projects and learn about the work being done throughout the watershed to restore, conserve, and protect local environmental resources.



Protecting Life and Property



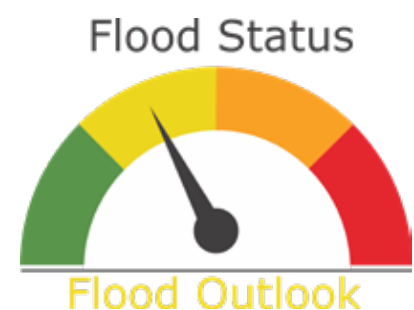
Every year, our staff collects water quantity data throughout the St. Clair region jurisdiction to monitor trends and identify potential flooding risks. Through a network of 11 stream gauges, the collection of meteorological data, snow surveys (pictured right), and ice monitoring, our staff are able to observe and model how water flows throughout the watershed.

Flood Operations

Flooding is a natural process. Despite efforts in reducing the risk to life and property in the St. Clair region, some flooding in developed and undeveloped areas is still inevitable. As a result, the Authority operates a flood warning system designed to warn residents in flood-prone areas. Through a network of 11 stream gauges, five snow sampling sites, ice monitoring, and meteorological data, our staff monitor ice and streamflow conditions. Should a flood be imminent, water resources staff issue bulletins to the Municipal Flood Coordinators and media prompting appropriate actions to be taken by officials.

There are four flood statuses:

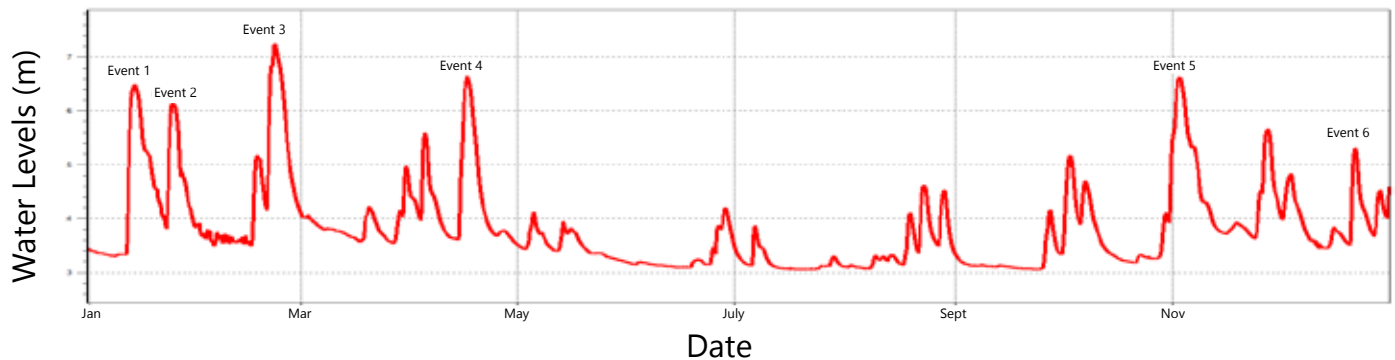
1. Normal Conditions (no flood conditions exist)
2. Watershed Conditions Statement
 - i. Water Safety (watercourses could pose a danger, flooding not expected)
 - ii. Flood Outlook (early notice of the potential for flooding)
3. Flood Watch (flooding is possible in some areas)
4. Flood Warning (flooding is imminent or occurring)



Flooding occurred throughout the St. Clair Region watershed during the February flood event. Pictured from left to right: McKeough floodway outlet, flooding at Bridgeview Park in Petrolia, flooding at Strathroy Conservation Area.

2018 Flood Events:

The Authority monitors stream conditions (e.g., flow rate, water level) at 11 stream gauge stations throughout the watershed. There were six flood events in 2018 during which the Authority issued flood status bulletins. The graph below depicts water level changes over the course of 2018 at the stream gauge station on the Sydenham River in Florence.



5
**WATER SAFETY
STATEMENTS**

2
**FLOOD OUTLOOK
STATEMENTS**

5
**FLOOD WATCH
BULLETINS**

5
**FLOOD WARNING
BULLETINS**

February Floods and Operation of the McKeough Floodway

The W. Darcy McKeough Floodway was constructed in 1984 to help reduce the threat of flooding in the Town of Wallaceburg and is the largest flood diversion project in Ontario. In February, the dam was operated for the seventh time since its construction and the first time since 2009.

Significant snowmelt, unstable ice conditions and heavy rainfall in mid-February caused widespread flooding of the Sydenham River. Early on February 21st, water levels rose quickly and met the dam operation criteria. The Authority closed the gates to divert excess water from the North Branch of the Sydenham River, down the floodway, and into the St. Clair River. In a matter of hours, the water levels downstream in Wallaceburg began to stabilize. The gates remained closed until February 23rd when, over a three-day period, the Authority slowly opened the dam to allow upstream water levels to normalize. There were no reports of major residential flooding in the Town of Wallaceburg.



Great Lakes Water Levels

Lake levels are an important factor in managing our flood and erosion control programs. In addition to shoreline erosion impacts, high lake levels can foster enhanced flood risks in the southern portions of the watershed with flat terrain.

Responding to Conditions in Our Watershed

In addition to the Flood Warning Program, the Authority also monitors watershed conditions using Low Water Indicators to determine whether drought conditions are occurring. Under drought conditions, the Authority meets with the Low Water Response Committee to issue a Level I, II or III Low Water Condition. There were no Low Water Conditions declared in 2018.

SCRCA water resources staff also keep an eye on wave activity along the southern Lake Huron, St. Clair River, and Lake St. Clair shorelines to advise residents about potential property damage caused by erosion and flooding.



High lake levels were observed throughout 2018 in both Lake Huron and Lake St. Clair, slightly exceeding those recorded in 2017. Both lakes continue to exceed the 10-year and 100-year long-term averages.



Erosion Control Projects

The St. Clair Region Conservation Authority was successful in securing funding through the Water and Erosion Control Infrastructure (WECI) program administered by the Ministry of Natural Resources and Forestry to conduct inspections on all Authority owned-dams. Funds were used to review structural integrity and identify required maintenance.

In addition, the first phase of two different shoreline protection projects were completed in early 2018. Phase 1 of the Courtright Waterfront Restoration project saw the installation of approximately 130 metres of armour stone along the St. Clair River shoreline (pictured top left). Support was provided through the WECI program, St. Clair Township and the Ministry of the Environment, Conservation and Parks – Great Lakes Community Guardian Fund. In addition, WECI funding and contributions from the City of Sarnia funded the first phase of the Sarnia Shoreline Protection project. The first phase involved the construction of a groyne between Helen Avenue and Kenwick Park along the Lake Huron shoreline (pictured bottom left).

Groundwater Monitoring

In an effort to better understand Ontario's groundwater resources, the Ministry of the Environment, Conservation and Parks (MECP) created the Provincial Groundwater Monitoring Network to monitor water quantity and quality in a number of test wells throughout the Province. As part of this network, SCRCA staff monitor water levels at nine wells and water quality at eight wells within the St. Clair Region on behalf of the MECP. The data gathered are reported in the Authority's Watershed Report Card, a document that is released every five years.



Water resources staff calibrating instrumentation that measures the water level at one of nine test wells.

Drinking Water Source Protection

The Thames-Sydenham and Region Source Protection Region was established as a result of the Walkerton water tragedy of 2000, which claimed the lives of seven people and sickened over 2,000. To protect municipal sources of drinking water, the *Clean Water Act* was passed in 2006 and 19 regional Source Protection Committees were established in Ontario to develop local policies. The Thames-Sydenham and Region Source Protection Committee submitted their first progress report to the Government of Ontario in 2018. The report outlines the progress of policy implementation during the first two years of the Source Protection Plan.

The implementation of the Plan is progressing well with 84% of significant drinking water threat policies being implemented or in progress. Of the 1,054 existing threats identified at the time of Plan approval, over half have been addressed through policy implementation or have been confirmed to no longer exist. In addition, a total of 41 risk management plans have been established to regulate significant threats in the region.



Promoting Safe Development and Healthy Communities

While municipalities encourage valuable development, it is important that new houses and businesses are located safely out of areas susceptible to natural hazards (e.g., flooding, slope failure, coastal erosion). It is also important that any development completed within a natural hazard area does not impact adjacent landowners or other landowners within the watershed.

As a watershed management agency acting under the *Conservation Authorities Act*, the St. Clair Region Conservation Authority:

- Is responsible for managing development within areas of natural hazards through Ontario Regulation 171/06 – *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses*
- Provides natural hazard and surface/groundwater comments on municipal planning matters
- Responds to Property Information Requests from members of the public, lawyers, and real estate agents
- Supports, through an agreement, member municipalities with Natural Heritage advice to ensure municipal land-use planning and development activities adhere to provincial policies
- Provides review of drainage projects for municipalities to ensure there are no negative flooding and erosion impacts

In 2018, lakes levels remained above the historic average resulting in erosion along the Lake Huron shoreline. Shoreline protection requires written permission from the Conservation Authority prior to work commencing. This is to ensure the safety of the landowner, their neighbours, and their properties. Unauthorized installation of shoreline protection structures that do not adhere to appropriate design standards can be detrimental and cause damage to adjacent properties.





The Lake Huron Shoreline Management Plan was approved in 2015 and outlines development and site alteration constraints along dynamic beaches to prevent loss of property due to flooding and erosion caused by high lake levels. Baird & Associates was contracted to complete an assessment of the dynamic beach along West Ipperwash Beach and a section of Sarnia (east of Murphy Road) along Lake Huron to refine the hazard limit. An update to Reaches 5 and 36/37 was approved in 2018. The update reduces the default dynamic beach limit based on sound coastal engineering modelling and principles. The completed assessments will be included as an Addendum to the overall plan.

Planning and Regulations Activity 2018

General Inquiries	46
Reviewing and advising on Official Plans, Official Plan Amendments, Zoning Bylaws, Zoning Bylaw Amendments and Subdivisions	52
Reviewing and advising on Severances and Variances	41
Applications under Ontario Regulation 171/06	167
Inquiries under Ontario Regulation 171/06	270
Non-Compliance Matters under Ontario Regulation 171/06	60
Legal Inquiries	31
Review of Environmental Studies and Development Assessment Reports including Terms of Reference	8
Hearings	1
Total Drainage Projects reviewed	111
Standard Compliance Requirements (SCRs) issued under the Drainage Act & Section 28 Regulations Team (DART) protocol	77
Drainage Letters of Review	32
Other	2

169% increase
over 2017

Conserving the Health of Our Watershed



Monitoring Surface Water Quality

Every year, from March to November, our staff regularly collects surface water samples from 22 sites throughout the watershed that are analyzed for nutrients, *Escherichia coli* (*E. coli*) and metals. The data collected is shared with programs including the Provincial Water Quality Monitoring Network, the Canada-Ontario Agreement (COA) on Great Lakes Water Quality, and the Healthy Lake Huron – Lambton Shores Tributaries program.

In addition, staff collect benthic invertebrates from 16 monitoring stations. Benthic invertebrates have unique pollution tolerances and serve as biological indicators of water quality. By analyzing these aquatic bottom-dwelling organisms, our biologists are able to better understand the water quality of local rivers and streams. Water quality data collected by Authority staff also aids in prioritizing monitoring, restoration and remediation efforts throughout the watershed.



Biology staff collect surface water samples following provincial protocols. Water quality parameters including pH, temperature and conductivity are also recorded using electronic instrumentation. Water samples are shipped to the Ministry of the Environment, Conservation and Parks and the Middlesex Health Unit for analysis.

Watershed Checkup – The 2018 Watershed Report Cards

Every five years, Ontario's Conservation Authorities report on watershed conditions to provide an overview of the state of the forests, wetlands, and water resources across the province. The watershed report cards use guidelines and standards developed by Conservation Authorities and their partners to enable a province-wide assessment. In 2018, the SCRCA prepared a technical report, a series of 14 subwatershed report cards, and a summary watershed report card based on data collected from 2011 to 2015.



As was found across the province, many of our natural resources are stressed – for the St. Clair Region, the average surface water quality scored a D (poor) grade, and the overall forest condition and wetland cover for the region scored a D (poor) and F (very poor) grade, respectively. While these grades are reflective of the intensive land use in southern Ontario, there is room for improvement. This is why, in addition to being an educational tool, the report cards help agencies identify areas to target and environmental projects to prioritize. The report cards highlight examples of projects that have been undertaken by individuals, organizations, and municipalities that contribute to improving the environmental health in the region. To learn more about the health of the St. Clair Region, visit scrc.on.ca/wrc.

Sydenham River Watershed Phosphorus Management Plan

Through funding provided by Environment and Climate Change Canada, the St. Clair Region Conservation Authority is coordinating the development of a phosphorus management plan for the Sydenham River watershed to reduce the impact of this nutrient on the Great Lakes basin. The objective of this multi-year project is to work with local stakeholders to identify sources of phosphorus, collect and analyze available data, and determine the most effective solutions. A community engagement and outreach strategy will also be developed to share the findings of the plan.

On November 27, 2018, the SCRCA hosted an initial stakeholder meeting to introduce and receive direction for the project. Over 65 people attended the meeting representing a variety of sectors, organizations, and community groups.





Fish Monitoring

There are approximately 160 native freshwater fish species in Ontario; the Sydenham River is home to at least 82 of them. Our biology staff conduct fish community surveys to gain important information on species distribution and watershed health. This information is shared with other agencies to guide policy development and prioritize research efforts.

In 2018, Authority staff:

- Sampled 17 sites
- Observed 3000 individual fish
- Identified 37 fish species
- Observed 3 invasive species at 5 sites (Common Carp, Goldfish, Tubenose Goby)



During the 2018 sampling period, Authority staff encountered Lake Chubsucker (pictured left). This federally endangered fish was just one of three Species at Risk (SAR) observed during the fish monitoring season. Other SAR included the Blackstripe Topminnow, and Grass Pickerel.



Researching and Supporting Reptiles at Risk

Snakes at Risk

Human persecution, road mortality, and habitat loss are major threats to Ontario's 15 snake species. Each year, our biology department monitors and works to support local populations by installing artificial habitat structures on Authority owned lands and the properties of interested landowners. The habitat structures are designed to create ideal conditions for female snakes to lay their eggs and provide protection from predators.



In addition to our snake monitoring program, in 2018, the SCRCa collaborated with Ontario Nature to test a newly developed "Long Term Monitoring Protocol" for Ontario's Snakes. Enhanced coverboard monitoring over 8-weeks resulted in sightings of numerous species including the endangered Eastern Foxsnake and Butlers Gartersnake and the more commonly encountered Eastern Gartersnake.



In 2018, 756 turtle hatchlings were released into the environment including 263 Eastern Spiny Softshell turtles (pictured far right; listed as "endangered") and 389 Northern Map turtles (pictured far left; listed as "special concern").

Turtles at Risk

There are eight species of turtle native to Ontario, and as of 2018, all eight are considered Species at Risk. In an effort to support turtle populations, our biologists rescue turtle eggs they encounter that are under imminent threat. In partnership with Salthaven Wildlife Rehabilitation and Education Centre and the Upper Thames River Conservation Authority, the eggs are incubated until the hatchlings emerge and are ready for release in their natural habitat. The hatchlings are released at the same location where their eggs were originally found. This program helps get the turtles past their first hurdle towards survival.

This past August, biology staff held their 2nd Annual "Turtlely Awesome Shellabration" at the A.W. Campbell Conservation Area (pictured right). This event provides visitors with the opportunity to learn about local turtle species and the Authority's efforts to protect them. Guests even had the opportunity to meet some of the hatchlings before they were released.



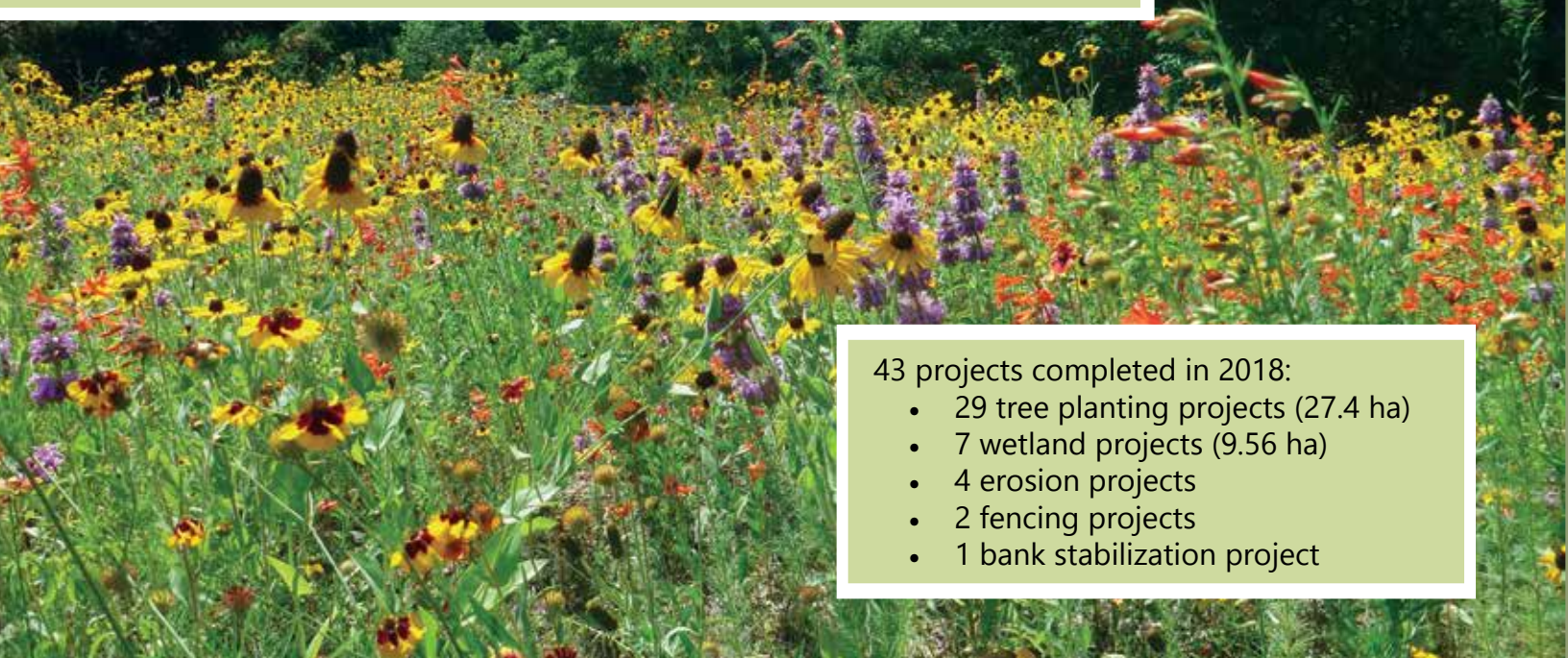
What is a SAR?

A Species at Risk or SAR is a type of plant or animal that is native to a region but is in danger of no longer being found in that area or becoming extinct.

In 2018, the 30 mussel surveys completed by SCRCA biologists uncovered over 7,700 individuals and 22 species, including six Species at Risk. The Lilliput, a small, rare mussel found in the Sydenham River has been listed as a SAR since 2014 (pictured right).



Creating Healthy Watersheds



43 projects completed in 2018:

- 29 tree planting projects (27.4 ha)
- 7 wetland projects (9.56 ha)
- 4 erosion projects
- 2 fencing projects
- 1 bank stabilization project

Healthy Watersheds Program

Our Healthy Watersheds Program provides landowners with technical and financial assistance to improve and protect rural water quality and soil health. Our staff actively seek grants that will help support the conservation efforts of private landowners. Projects can include wetland creation/rehabilitation, sediment traps, agricultural erosion control structures, cover crops, buffer strips, riparian/stream bank protection, wildlife habitat creation, windbreaks, and reforestation.

Connecting Landowners with Environmental Stewardship Funding

In 2018, our staff secured \$214,703 in grants to support 43 projects on private landowner property. The following are the sources of funding obtained for stewardship projects in 2018:

\$ 47,790	50 Million Tree Program (Forests Ontario)
\$ 27,500	Ducks Unlimited Canada
\$ 3,600	Enbridge
\$ 17,700	Friends of the St. Clair River (Ontario Trillium Foundation/FOSCR)
\$ 10,768	Habitat Stewardship Program - Prevention Stream (ECCC)
\$ 52,000	Habitat Stewardship Program - Species at Risk Stream (ECCC)
\$ 27,460	Lambton County Tree Cutting Bylaw
\$ 1,885	Middlesex Stewardship Trust Fund
\$ 16,000	Land Stewardship and Habitat Restoration Program (MNRF)
\$ 10,000	Ontario Community Environment Fund (MECP)



In 2018, SCRCA staff planted 54,700 seedlings and 180 large stock trees. In addition, the Authority supplied 6,600 seedlings and 740 large stock trees to local landowners.

Greening Our Watershed

Tree Seedling Program

The SCRCA offers a tree seedling planting and 3-year maintenance program for large-scale afforestation and windbreak projects. Staff work to secure grants on behalf of the landowners to help offset the cost of these projects.

Large Stock Tree Program

Each year, our conservation services staff work with local nurseries to purchase large stock trees in bulk. These trees are supplied to private landowners for plantations and windbreaks and to municipalities for roadside plantings.

Providing Woodlot Management Services

Our qualified forestry staff members:

- Provide landowners with technical assistance on woodlot management
- Create Woodlot Management Plans that meet the specific goals of the landowners
- Are certified to prepare and/or approve plans created through the Managed Forest Tax Incentive Program (MFTIP)

The goal of the MFTIP is to create a fair property tax system by valuing woodlands based on current use. The program is also designed to increase landowner awareness about forest stewardship. In 2018, our MFTIP certified staff completed:

- 5 new plans, managing 65 hectares of forest
- 3 renewals, managing 32 hectares of forest

The Authority also continues to administer the Woodlands Conservation Bylaw on behalf of the County of Lambton. This partnership not only assists with the regulatory aspect of the bylaw but has expanded local outreach and education related to conserving woodlands.



Additional forestry services the SCRCA offers include woodlot marking and silvicultural prescriptions.



Collecting Local Tree Seed

Just as it is important to select the correct species for a project's site conditions, it is also important that trees are sourced from seed produced in the same geographic region. This ensures the trees are genetically adapted to local conditions and able to grow to their fullest potential. Each year, our conservation services staff collect tree seed from native species throughout the watershed. The seed is shipped to wholesale nursery stock growers who plant the seeds and produce trees for future afforestation projects. In 2018, 2,600 litres of tree seed was collected by Authority staff. In addition, through funding provided by Enbridge, staff also organized a workshop through the Tree Seed Collector Mentorship Program where participants learned how to properly collect and process seed.



2018 marked the completion of an 8-year naturalization project in partnership with Enbridge. Since 2011, the SCRCa has worked with Enbridge to complete a number of stewardship projects on 34 hectares of their land in St. Clair Township. The project saw the creation of wetlands, tallgrass prairie habitat and the planting of more than 62,000 trees. To celebrate the partnership, Enbridge staff joined SCRCa forestry specialists to hand plant 900 tree seedlings on one of their properties near Wilkesport.



Through funding provided by TD Friends of the Environment Foundation, our staff organized three TD Tree Day events in Sarnia, Strathroy and Forest. In total, over 340 trees were planted by 120 volunteers over the three days. Other community planting events saw an additional 110 trees planted throughout the St. Clair Region watershed.



The 8th annual Great Canadian Shoreline Cleanup was held at Centre Ipperwash Beach in early September. Twenty volunteers gathered to collect garbage left on the dunes from the summer season. Beyond the typical plastic bottles and containers, volunteers also found rugs, lawn chairs, diapers, cigarette butts and feminine hygiene products littering the beach area.

Healthy Lake Huron

The Healthy Lake Huron – Clean

Water, Clean Beaches campaign is led by the governments of Canada and Ontario in partnership with municipal governments, public health units, conservation authorities and other local organizations. The objective of the program is to coordinate actions aimed at improving water quality along the southeast shores of Lake Huron from Sarnia to Tobermory with a focus on reducing phosphorus and *E. coli* from entering waterways.

In particular, the Lambton Shores Tributaries watershed within the SCRCA jurisdiction was identified as one of five target watersheds. Our staff work to monitor water quality in this region to evaluate the impact of nutrient runoff into Lake Huron. They also organize and attend numerous events to educate and inform the local community and landowners on the importance of the Healthy Lake Huron initiative and what they can do on their own properties to reduce nutrient loads to local waterways.

On October 3, 2018, SCRCA staff, in cooperation with champion landowners, organized the inaugural “Tailgate Talk” event. The evening gathering attracted 25 people interested in learning from six local farmers who implement cover crop strategies on their properties. Discussions surrounded how local farmers were trying to build soil health and stability through cover crops while also finding cost benefits in grazing livestock on their cover crops into the fall season. Funded by the TD Friends of the Environment Foundation the event was a great success. There was modified cover crop equipment on-hand for participants to observe and ask questions about – the lively discussions extended well beyond the intended end time.





SCRCA staff in collaboration with Lower Thames Valley Conservation Authority hosted a Lake Erie Soil Health Conference in Chatham, Ontario. Funded by the Ontario Ministry of Agriculture, Food and Rural Affairs, the conference attracted over 180 participants. Soil health experts from all over North America attended and shared their research and experiences with rural Best Management Practices, phosphorus control, soil testing, and the economics of soil loss through erosion. Panel discussions with 15 local landowners covered a range of topics including reduced tillage practices, cover crops, and erosion control methods. A key message stemming from the conference was that there is no single answer to improving soil management and nutrient loss in agricultural areas — it takes a combination of Best Management Practices that will change from farm-to-farm and even year-to-year.

Lambton County Phragmites Partnership

With funding provided by the County of Lambton, the St. Clair Region Conservation Authority assumed the coordinator role for the Lambton County Phragmites Partnership. The purpose of this program is to increase awareness among Lambton County communities on the invasiveness of Phragmites, how to recognize it, and methods of managing its spread. The ultimate goal is to reduce the presence of Phragmites in Lambton County.

As part of this partnership, Authority staff developed outreach materials to be displayed and distributed at local events. In addition, a workshop was held in late October that brought together Lambton County stakeholders and partners. The purpose of this workshop was to share information and experiences related to fighting against the rapid spread of this invasive species. The multi-year partnership will continue with the objective of creating a prioritized and coordinated plan for managing Phragmites in Lambton County.

Phragmites is an invasive plant that outcompetes native species for water and nutrients. Its aggressive spread throughout Ontario is degrading local wetlands, beaches, and biodiversity.



St. Clair River Area of Concern




In 1987, the St. Clair River was identified as one of 43 Areas of Concern (AOC) in the Great Lakes Basin by the governments of Canada and the United States. AOCs are locations where local historical pollution severely limited the use and enjoyment of a water body. Municipal and industrial discharges along with habitat loss contributed to the designation of the St. Clair River as an AOC.

The goal of the AOC program is to implement a Remedial Action Plan (RAP) to restore the environmental challenges (also called Beneficial Use Impairments or BUIs) that were identified for the St. Clair River. The St. Clair Region Conservation Authority plays an important role in this program by coordinating and managing projects in collaboration with the federal and provincial government, First Nations, industry, and local community groups.



2018 Status Updates

2018 saw considerable progress for the St. Clair River AOC program. A “Not Impaired” status was granted for three BUIs after comprehensive surveys and monitoring confirmed restoration targets had been met. The three BUIs were:

-  Bird or Animal Deformities or Reproductive Problems
-  Restrictions on Dredging Activities
-  Beach Closings

Current Status of the BUIs	
Not Impaired	8
Requires Further Assessment	2
Impaired	4



Another milestone in the remediation of the St. Clair River came through a collaborative agreement between Environment and Climate Change Canada, the Ontario Ministry of the Environment, Conservation and Parks, and Dow Canada to initiate a detailed engineering design for the management of three pockets of contaminated sediment in the river. The St. Clair Region Conservation Authority will serve as Project Manager. Lasting approximately two years, the engineering design phase will outline logistical details to carry out the project and provide a more accurate estimate of remediation costs. The purpose of the overall Sediment Management Project is to clean up contaminated sediment in the St. Clair River to reduce the risk of bioaccumulation of mercury in fish.

Conservation Lands to Explore



There are many benefits to spending time outside and connecting with nature. The St. Clair Region Conservation Authority and Foundation own more than 2,100 hectares of land with many providing recreational opportunities including swimming, boating, hiking, bird watching, camping, fishing, and hunting.



Our team continuously maintain and improve these areas for the enjoyment of our visitors. In 2018, our regional campgrounds saw playground, mini golf and pavilion improvements. Upgrades to roadways, boardwalks and access gates were completed at many of our other Conservation Areas. In addition, improvements were made to natural habitats on our lands through tree planting initiatives and the creation and restoration of wetlands.

Thanks to a dedicated group of volunteers, many events are organized at our local campgrounds. Visitors can participate and enjoy activities including bagel breakfasts, bingo, crafts, movie nights, and Canada Day fireworks.



Our Conservation Lands:

- 15 Conservation Areas
- Manage 17 Foundation properties
- Manage 7 natural areas for Lambton County
- Over 40 km of hiking trails

Our Campgrounds:

- 3 regional campgrounds
- Over 500 campsites
- 420 seasonal campers
- Employ over 20 seasonal staff
- Financially self-sufficient with over \$1.2 million gross revenue in 2018



Every year, the Authority hosts a Maple Syrup festival at the A.W. Campbell Conservation Area. 2018 was our most successful year to date with 1,350 people attending over the two-day event. Visitors were able to experience the different methods of syrup production used throughout history and enjoy a scenic horse-drawn wagon ride or hike through the Conservation Area.

Fostering Environmental Awareness



Education is an important part of shaping tomorrow's environmental leaders. At the St. Clair Region Conservation Authority we offer a variety of hands-on, curriculum-based Conservation Education programs for both elementary and secondary school students. Our education staff offer both outdoor and in-class programs. We have also become an important certification provider for the Specialist High Skills Major (SHSM) program — an Ontario-wide program offered to high school students that provide them the opportunity to focus on skills related to a specific career path.

In 2018, over 11,000 students participated in our conservation education classes. Our team works to reduce costs to schools and students through donations and grants. Funding support for our Conservation Education program in 2018 was provided by:

- Sarnia-Lambton Environmental Association
- Plains Midstream Canada
- Friends of the St. Clair River
- Healthy Kids Community Challenge
- Waste Management
- Ministry of the Environment, Conservation and Parks
- Environment and Climate Change Canada
- Lambton Upland Game Bird Chapter
- St. Clair Region Conservation Foundation

Our Conservation Education staff participate in a number of local special events to further spread our message of environmental conservation. Events in 2018 included the Sarnia Kid's Funfest, Lambton Upland Game Bird Youth Day, Artwalk, Agriculture in the Classroom, and the Forest Fall Fair.

A new partnership was formed between the SCRCA and École secondaire catholique Saint François Xavier (SFX) in 2018 that resulted in trails being improved at the Lorne C. Henderson Conservation Area. Students enrolled in the Innovation, Creativity, Entrepreneurship (ICE) Training spent a full day at the Conservation Area to learn about trails and the challenges in maintaining them. Students identified a wet section of the hiking trail and developed potential solutions. With funding provided by the Providence Catholic School Board, the students were able to make their vision become a reality by installing a culvert and boardwalk (picture right). Large rocks were also placed at the entrance and exit of the trail to prevent motorized vehicular access.



Conservation Foundation

Who Are We?

The St. Clair Region Conservation Foundation is a registered, charitable organization with the purpose of raising funds to support the conservation programs of the Authority. The organization accepts donations and raises funds through the dedication of volunteers and staff who organize local fundraisers. The Foundation supports a number of initiatives including conservation education; tree planting; the protection of wetlands, soils and forests; and programs that protect communities from flooding and erosion.

In 2018, the Foundation committed over \$140,000 to support Conservation Authority Programs including:

- Conservation Education - \$60,000
- Scholarships - \$3,000
- A.W. Campbell Recreation Equipment Upgrades - \$8,000
- Intern Positions - \$18,000
- Memorial Forest Tree Planting - \$7,000
- International Plowing Match - \$10,000

Foundation Board of Directors

Duncan Skinner, President
Norm Giffen, Vice President
Lyn Goddard, Treasurer
Bill Bilton
Ken Brooks
Ralph Coe

Ottavio Colosomo
Rex Crawford
John Simmons
Steve Arnold
Archie Kerr



Memorial Forests

Through the Foundation's Memorial Forest Program, any individual can make a donation to have a tree planted in memory of a loved one. In 2018, 78 trees were planted at local Conservation Areas through this program.

In partnership with Denning's Funeral Home, the Foundation has also established the Denning's Memorial Forest Program. Through the program, Denning's makes donations on behalf of the families they serve. These funds support conservation education and tree planting initiatives throughout the region. Two dedication services are held annually to serve families in both Strathroy and the West Elgin and Chatham-Kent area.



Conserving Land

The St. Clair Region Conservation Foundation accepts land donations that further the objectives of the Authority by preserving important natural areas. To date, 17 land donations have been received by the Foundation totalling 461 hectares. The Conservation Authority manages these lands on behalf of the Foundation.

At the June 7th Board of Directors meeting, Foundation members toured the Harrison and Cuddy Woods properties. Donated in memory of loved ones in 2002 and 2011, respectively, both properties have significant conservation benefits for our region and will be preserved for the benefit of future generations.



Conservation Scholarships

Every year, the St. Clair Region Conservation Foundation rewards graduating high school students who are pursuing post-secondary studies in a conservation-related field. The 2018 recipients were:

A.W. Campbell Memorial Scholarship - \$1,000 awards

Jared Newport, Lambton Kent Composite School

Brandon Jordan, Wallaceburg District Secondary School

Mary Jo Arnold Conservation Scholarship - \$500 award

Emily Smith, Great Lakes Secondary School

Tony Stranak Conservation Scholarship - \$500 award

Naomi Rosedale, Holy Cross Catholic Secondary School

Special Event – 2018 International Plowing Match

The International Plowing Match was held in Pain Court, Chatham-Kent in September 2018. In partnership with the Lower Thames Valley and Essex Region Conservation Authorities and through a generous donation by the Conservation Foundation, we were able to reach over 6,000 people over the five-day event. Funds contributed to building interactive displays to teach visitors about the role Conservation Authorities play in protecting our local environment and promoting Healthy Great Lakes.



Our Partners in Conservation

The St. Clair Region Conservation Authority values and appreciates the new and long-standing partnerships we have formed with organizations and agencies that have similar goals. Each year, the Authority actively seeks additional grants, donations, and contracts to support conservation in our region. We thank the many organizations that contributed funding to the success of our conservation programs in 2018.

Environment and Climate Change Canada - \$132,900

Habitat Stewardship Program Prevention Stream - \$19,900
Habitat Stewardship Program SAR Stream - \$52,000
St. Clair River Area of Concern - \$61,000

Ministry of Natural Resources and Forestry - \$81,500

Land Stewardship and Habitat Restoration Program - \$16,000
Species at Risk Stewardship Fund - \$47,900
Summer Experience Program - \$7,600
Water and Erosion Control Infrastructure - \$10,000

Ministry of the Environment, Conservation and Parks - \$210,400

Drinking Water Source Protection - \$72,000
Great Lakes Guardian Community Fund - \$50,000
Ontario Community Environment Fund - \$23,400
St. Clair River Area of Concern - \$65,000

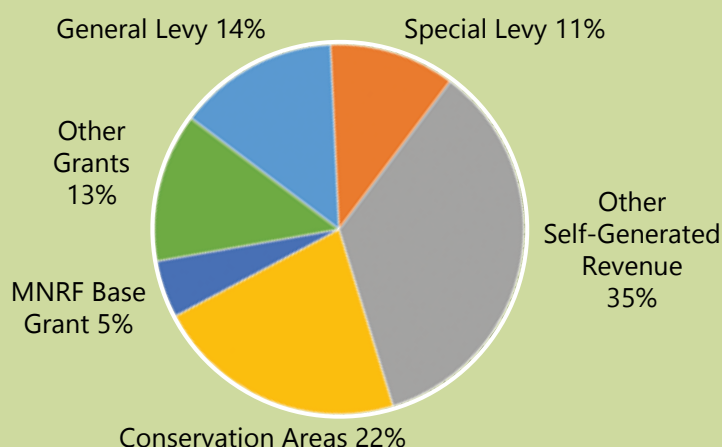
St. Clair Region Conservation Foundation - \$143,500

Direct Project Support - \$96,000
Friends of the St. Clair River - \$2,500
Sarnia Bingo Program - \$15,000
Sarnia-Lambton Environmental Association - \$30,000

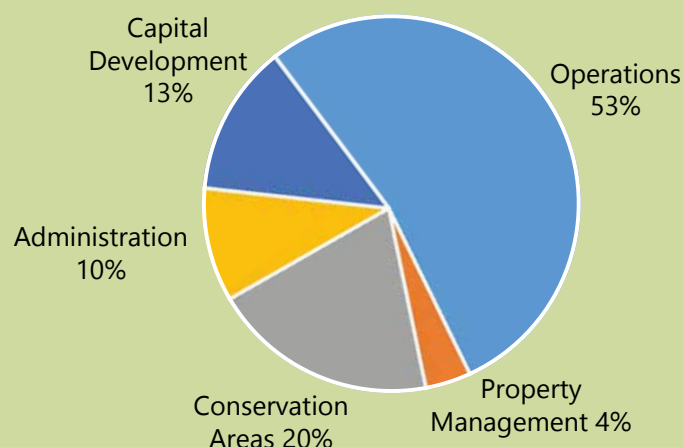
Other Partners - \$351,095

50 Million Tree Program (Forests Ontario) - \$47,800
Canada Summer Jobs - \$11,400
Ducks Unlimited Canada - \$45,500
Enbridge - \$3,600
Fisheries and Oceans Canada - \$8,800
Friends of the St. Clair River - \$57,800
Ontario Trillium Foundation - \$53,100
FOSCR - \$4,700
Job Creation Partnership - \$8,650
Lambton Public Health (TDFEF) - \$5,000
Lambton Tree Cutting Bylaw - \$27,460
Middlesex Stewardship Trust Fund - \$1,885
National Disaster Mitigation Program - \$115,000
Plains Midstream - \$3,500
TD Friends of the Environment Foundation - \$14,700

2018 Revenues – \$6,214,770*



2018 Expenditures – \$6,053,322*



*Unaudited

Our Staff

Administration Office

Lisa Atkinson, GIS/Photogrammetry Technician (Jan – Apr)
Mark Bakelaar, Conservation Services Technician (Apr – Nov)
Eva Baker, Records Management Clerk (Feb – Oct),
Planning and Regulations Clerk (Nov – Dec)
Kevan Baker, Director of Lands
Laura Biancolin, Agricultural Outreach Technician (Jan – Sept)
Donna Blue, Manager of Communications (Apr – Dec)
Erin Carroll, Director of Biology
Stephen Clark, Water Resources Specialist
Dallas Cundick, Environmental Planner/Regulations
Officer (Jan – Apr), Manager of Planning (May – Dec)
Emily De Cloet, Water Resources Technician
Melissa Deisley, Regulations Coordinator
Marlene Dorrestyn, Administrative Assistant
Nicole Drumm, Communications Technician
Chris Durand, IT/GIS Coordinator
Ashely Fletcher, Administrative Assistant/Board Coordinator
Michelle Gallant, Regulations Officer (Jun – Dec)
Patricia Hayman, Director of Planning (Jan – Apr)
Sarah Hodgkiss, Planning Ecologist
Kelly Johnson, St. Clair River RAP Coordinator
Sarah Kellestine, Payroll and Accounting Clerk
Brian McDougall, General Manager
Erica Ogden, Planner
Tim Payne, Forest Management Specialist
Tracy Prince, Director of Finance
Girish Sankar, Director of Water Resources
Alison Seidler, GIS Specialist
Jeff Sharp, Conservation Services Specialist
Steve Shaw, Manager of Conservation Services
Kelli Smith, Watershed Biologist
Olivia Sroka, Aquatic Research Technician (Feb – Nov)
Jessica Van Zwol, Healthy Watershed Specialist
Greg Wilcox, Watershed Monitoring

Drinking Water Source Protection

John Campbell, Senior Information Management Analyst
Deb Kirk, Administrative Assistant
Linda Nicks, Hydrogeologist

Field Offices

McKeough Floodway

Shane White, Maintenance Foreman, McKeough Floodway

A.W. Campbell Conservation Area

Mike Tizzard, Superintendent
Don Skinner, Assistant Superintendent

Lorne C. Henderson Conservation Area

Terry Barrie, Superintendent
Luke Derks, Assistant Superintendent
Sharon Nethercott, Conservation Education Coordinator
Melissa Levi, Conservation Education/Community
Partnership Technician

Warwick Conservation Area

Bill Turner, Superintendent
Glenn Baxter, Assistant Superintendent

McLean Conservation Lands

Scott O'Brien, Superintendent

Staff Retirements

At the St. Clair Region Conservation Authority, we have been fortunate to benefit from the experience and knowledge of long-term staff members. In 2018, Patty Hayman, Director of Planning, and Bill Turner, Superintendent at Warwick Conservation Area, retired after dedicated careers with the Authority. We wish both Patty and Bill the best in their next chapters.



Patty Hayman
29 Years with SCRC



Bill Turner
28 Years with SCRC

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