

Working Together For A Healthy Environment

**2014
Annual Report**

Vision, Mission, and Objectives

Vision

Vision is defined as foresight. The vision of the St. Clair Region Conservation Authority reflects the future desired state of our region.

"The St. Clair Region Conservation Authority has as its vision, watersheds where human needs are met in balance with the needs of the natural environment."

Mission

A mission reflects action. In order to achieve our vision, it is necessary to provide leadership, effective management and ongoing communication.

"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."

Objectives

Develop and maintain programs that will protect life and property from natural hazards such as flooding and erosion - The SCRCA works in partnership with municipalities to protect life and property through the development of programs that minimize or prevent the impact of disasters such as flooding and erosion.

Protect, manage and restore our woodlands, wetlands and natural habitat - Because what we do on land is reflected in our water and ecosystems, the SCRCA develops programs that protect our land resources and promotes watershed stewardship practices that lead to healthy, sustainable communities and industries.

Ensure that our rivers, lakes and streams are properly safeguarded, managed and restored - Based on our system of watersheds, the SCRCA develops and delivers watershed-based programs that work with nature to protect, restore and effectively manage our water resources.

Provide opportunities for the public to enjoy, learn from, and respect our natural environment - Through the lands we manage and own, as well as the educational programs we deliver, the SCRCA provides opportunities for our communities to understand and appreciate the value of their natural environment as well as the social and economic benefits of protecting that environment.



2014 Board of Directors

Betty Ann MacKinnon, Township of Adelaide-Metcalf
Frank Nemcek, Municipality of Brooke-Alvinston
Joe Faas, Municipality of Chatham-Kent
Anne Gilbert, Municipality of Chatham-Kent
Bill Bilton, Township of Dawn-Euphemia
Kevin Marriott, Township of Enniskillen/Village of Oil Springs
Elizabeth Davis-Dagg, Municipality of Lambton Shores (January - November)
Gerry Rupke, Municipality of Lambton Shores (December)
Ben Phay, Municipality of Middlesex Centre
John McCharles, Town of Petrolia
Netty McEwen, Town of Plympton-Wyoming
John Romlewski, Village of Point Edward
Anne Marie Gillis, City of Sarnia
Terry Burrell, City of Sarnia
David Boushy, City of Sarnia
Don McCallum, Municipality of Southwest Middlesex/Village of Newbury
Steve Arnold, Township of St. Clair
Steve Miller, Township of St. Clair
Tony Bruinink, Municipality of Strathroy-Caradoc
Norm Giffen, Municipality of Strathroy-Caradoc
Rod Glen, Township of Warwick

The Conservation Authority is governed by a Board of Directors appointed by the member municipalities within the jurisdiction of the St. Clair Region Conservation Authority. The 20 Authority Directors vote annually to select a Chair, Vice Chair and Executive Committee.

The Board met six times in 2014 and is responsible for establishing the policy and procedures under which the Conservation Authority operates. Conservation Authority board members provide a crucial link between this organization and the municipalities we serve.

Executive Committee

Steve Arnold, Chair
Terry Burrell, Vice Chair
Bill Bilton
Tony Bruinink
Joe Faas
Norm Giffen
Anne Marie Gillis
Rod Glen
Betty Ann MacKinnon



Terry Burrell, Vice Chair (left) and Steve Arnold, Chair (right) present Joe Faas with a service award for 10 years of service on the Board of Directors.



Frank Nemcek (left), a member of the Board of Directors, presents awards to Tom Harmon and Kevan Baker at the Sydenham River Canoe and Kayak Race.

Chair's Remarks

As you read through our annual report, there are details on a wide array of projects and programs. I would ask you, however, to take special note of the many partnerships we have forged. It is through partnerships that we move the yardstick forward to create safer and healthier watersheds.

Our Board of Directors and our staff have worked very diligently to create a program that meets the needs of our watersheds and does so within the financial constraint of the times. We will continue to be innovative and focused on the needs of our watershed and our member municipalities.

I would like to thank the many partners who have joined with us and accepted us into their fold. I also thank the Board of Directors for their support and hard work over this last year and to our dedicated staff who continue to work on behalf of our communities.

*Steve Arnold
Chair*



Protecting Life and Property

Flood Warnings

Flooding is a natural process. While the Conservation Authority has done much to reduce the risk to life and property, some flooding in developed areas is still inevitable. The Authority operates a flood warning program designed to warn residents in flood-prone areas. In addition, municipal representatives meet with Authority staff to review and update the Flood Warning Plan, enabling an organized and coordinated response in the event of changing watershed conditions. Through a network of 11 stream gauges, five snow sampling stations, ice monitoring, and current meteorological data, Authority staff monitor watershed conditions by tracking and updating data on an ongoing basis to scientifically determine short- and long-term trends. Should a flood be imminent, the Municipal Flood Coordinators and the media are advised and officials take appropriate action.

There are four types of statements issued:

- Watershed Conditions Statement for Water Safety
- Watershed Conditions Statement for Flood Outlook
- Flood Watch
- Flood Warning

In addition to riverine flooding, the Authority issues warnings for damage which may occur from wave action along southern Lake Huron, St. Clair River, and northeastern Lake St. Clair shorelines.



In 2014, five events including one Flood Watch (May 13 - 16) and four Water Condition Statements were issued. The colder than normal winter combined with extensive snow pack that built up from January to March created concern of significant flooding during the spring melt. A very slow but steady melt, however, resulted in only minor flooding in low lying areas.

Great Lake Water Levels

Throughout 2014, Great Lake water levels continued to improve significantly compared to 2013 in both Lake St. Clair and Lake Huron. Water levels have increased by 24 cm and 40 cm respectively in the last year. Lake Huron levels continued to exceed the 10 year long-term average for most of the year, however, this average continues to be based on an extended period of lower levels experienced over the past 10 years. Surface water temperatures were also colder than usual for summer 2014. The below-average water temperatures were attributed to below-normal air temperatures and an extended late-season ice cover. This may continue to reduce the availability of moisture contributing to lake effect snow.

Lake levels are an important factor in managing our flood and erosion control program. In addition to the obvious impact on shoreline erosion from high lake levels, the flat terrain in the southern portions of the watershed create greater flood risks. Water levels in lower Sydenham River (Wallaceburg and Dresden), for example, are actually determined by the water level in Lake St. Clair. The higher the lake level, the less room there is in the lower reaches of the Sydenham River to accommodate increased flows from storms and spring snow melt.



High winds on Halloween in excess of 80 km/hr caused significant wave action along the south eastern shore of Lake Huron. In addition to spectacular photo opportunities such as this picture at the Lambton Area Water Supply System, the waves caused erosion along the shoreline, particularly in Ipperwash.

Water and Erosion Control Infrastructure Grants

The Ministry of Natural Resources and Forestry provided \$524,000 to support a number of projects in the St. Clair region. The funds were provided to the St. Clair Region Conservation Authority through the Water and Erosion Control Infrastructure (WECI) program.

- \$300,000 for shore protection at the Lambton Area Water Supply System
- \$150,000 for Phase IV of the Cathcart Erosion Control Protection Project
- \$74,000 for dam and channel repairs at the W. Darcy McKeough Floodway



The shore protection work for LAWSS will connect to the protection under the Blue Water Bridge, a popular spot for viewing boats on the St. Clair River.

3-D Mapping Project Underway

The SCRCA has begun the process of developing better elevation mapping standards. This includes improved data to aide our ability to accurately define flood lines. To date, the Province and several Conservation Authorities have invested in Pilot Projects to create a high resolution Digital Elevation Model (DEM) and contours. The information required to create a DEM and accurate contours has been derived from the 2010 digital aerial photography with impressive results.

Higher quality flood plain mapping is integral to accomplishing the Conservation Authority's mandate. Through partnerships and collaboration with neighbouring Conservation Authorities which have already commenced with Pilot Project methodologies, the SCRCA will be contributing to a consistent and accurate mapping base for shared municipalities. Additional project benefits include the ability of land and water managers to identify flow direction, areas requiring protection, and areas where stewardship projects, such as wetland creation, will help improve water quality in the watershed.

In 2014, the SCRCA contracted a GIS/Photogrammetry Technician to complete this project over the three year time period. Currently, the appropriate methodology has been finalized including an understanding of functions and tools within the software which will enable this project to be completed on time. Digital terrain models are being generated by the software and a manual capture of watercourses and hydrological features is currently in progress. Future plans include applying the manually captured hydrological features to the digital terrain model to create a high resolution DEM and contours.

Erosion Control Projects

Cathcart Park: The third phase of protection at Cathcart Park was initiated in 2014 and will be complete in the spring of 2015. An additional 80 metres of armour stone protection are being constructed at a cost of \$290,000. Funds (\$170,000) were granted through the provincial Water and Erosion Control Infrastructure Program. Grants to enhance the project by providing improved shoreline habitat were received from the Great Lakes Sustainability Fund (\$100,000) and from the Ministry of the Environment and Climate Change through Canada-Ontario Agreement (COA) funding and the Ontario Great Lakes Guardian Fund (\$43,000).

Lambton Area Water Supply System (LAWSS): Work was initiated in 2014 and will be completed by spring 2015 for the construction of erosion protection at the mouth of the St. Clair River. Approximately 280 meters of shoreline will be restored with a combination of existing concrete blocks and armour stone sea wall. Funds (\$300,000) were granted through the provincial Water and Erosion Control infrastructure Program with matching funds from LAWSS. An additional \$50,000 has been secured from the Ministry of the Environment and Climate Change through the Canada-Ontario Agreement.

Running Creek Dykes: Erosion on the Running Creek dykes along Frohan Lane has been an ongoing issue. Staff have been monitoring the site since 2010. A new bioengineering approach using Envirolok bags was used to stabilize a portion of the banks.



Envirolok bags are used to stabilize a section of eroding bank on the Running Creek dykes in Wallaceburg. The Envirolok bags contain mulch, top soil, and sand which will act as secure anchor and as a growing medium for bank stabilizing vegetation.

Climate Change

Climate change is occurring in the SCRCA watershed, as it is in the rest of the world. This can be seen in several key features of climate, including warming temperatures, changes in precipitation patterns, and shifts in the growing season. A climate change report has been drafted to document the effects of changing climate in the watershed. SCRCA staff continue to document how changes in climate are impacting local watersheds and how we can evolve our programs to meet the challenges posed by climate change.

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 potential natural hazards. It is also important that any development that is completed within an area of natural hazard does not endanger adjacent landowners, or other landowners within the system.

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.

To prevent future risk and to protect the interests and liability of our member municipalities, O.R. 171/06 requires landowners to obtain permission of the Authority prior to developing within natural hazard areas associated with watercourses and areas susceptible to river or lake shoreline flooding, ravine and shoreline slopes, wetlands and lands adjacent to wetlands. Through pre-consultation with proponents and member municipalities, wetland areas and hazard constraints are discussed and avoided up-front in most cases.

The Authority provides natural heritage, hazard, and surface/groundwater comments on municipal planning matters. While the Authority has been delegated the responsibility to represent the provincial interest regarding natural hazards, we also provide technical advice on natural heritage and assist municipalities by reviewing natural heritage environmental reports such as wetland/woodland environmental assessments including Terms of Reference and Work Plans. Natural hazard studies can include floodlines, stormwater management, stable slopes, coastal assessments and engineering. The Authority, from time to time, may obtain outside expertise to review complex technical reports. This review and input assists municipalities in meeting their obligation to adhere to related provincial policies.

The Authority also responds to requests for property information from members of the public, lawyers, and real estate agents. These inquiries are very important so that prospective buyers of property or people considering works in high risk areas have a prior understanding of the risks and requirements involved.



Changes to the Provincial Policy Statement

In 2014, a revised Provincial Policy Statement (PPS) was released by the province. The PPS provides policy direction on matters of provincial interest related to land use planning and development. The following additions to the PPS impact Planning Authority responsibilities and advice the Conservation Authority provides in its dealings with municipal planning matters:

- Planning authorities shall consider the potential impacts of climate change that may increase the risk associated with natural hazards.
- Planning authorities shall identify natural heritage systems in certain Ecoregions, recognizing that natural heritage systems will vary in size and form in settlement areas, rural areas, and prime agricultural areas.

Beyond delegated natural hazard plan review commenting, individual Conservation Authorities may enter into service agreements (MOAs) with municipalities to perform a technical advisory role to municipalities, as determined under the terms of the service agreements.

Currently, the SCRCA assists municipalities by commenting, as an advisory agency only, on the following provincial interests: Natural Heritage; identifying municipal drinking water supplies and designated vulnerable areas as per the provincially approved Upper Thames, Lower Thames and St. Clair Region Source Protection documents; and stormwater management.

Planning and Regulations Activity

	2013	2014
General Inquiries	12	18
Reviewing and advising on Official Plans, Official Plan Amendments, Zoning By-laws, Zoning By-law Amendments and Subdivisions	38	32
Reviewing and advising on Severances and Variances	43	68
Applications under Ontario Regulation 171/06	116	169
Inquiries under Ontario Regulation 171/06	246	162
Legal Inquiries	64	57
Review of Environmental Studies and Development Assessment Reports including Terms of Reference	12	13
Hearings	0	2
Total	531	521

Creating Healthy Watersheds

Tree Planting Program

This year, 84,000 seedling trees were planted on private and public lands. During the fall, 120 large stock potted trees were planted.

Approximately \$180,000 in federal, provincial and local grants were secured through 8 separate funding programs and used to offset planting costs for most landowners taking part in the program.

Tree Maintenance

For a tree planting project to be successful, maintenance of the trees is essential. The Conservation Authority offers a service to provide weed control for newly planted seedlings for three years. In 2014, 185,000 trees were treated with herbicide to prevent competition from weeds.

Trees Ontario - 50 Million Tree Program

Trees Ontario has a long-term agreement to plant 50 million trees province-wide by 2025. In 2014, the SCRC received \$70,000 from Trees Ontario to help plant 55,000 trees on private lands.



Authority Collecting Tree Seeds

Foresters understand that it is important to select the proper species for the site conditions where the tree is to be planted. Not only that, but that trees should be grown from a seed that evolved in the same geographic location.

The Conservation Authority collected local seeds throughout the watershed. The seeds were supplied to a nursery who will grow local tree stock for planting. Seeds collected in 2014 will be used in our tree planting program in 2016 - 2018. Seeds collected this fall include black walnut, bur oak, red oak, red cedar and shagbark hickory. Approximately 2,200 litres of seed were collected.

Drain Maintenance Program

Authority staff worked with municipal drainage superintendents on the maintenance of 25 km of municipal drains in 2014. The herbicide applications assist in controlling woody vegetation, decreasing the frequency of drain clean-outs, and reducing sedimentation caused by frequent clean-outs.

Woodlot Management Services

Qualified forestry staff provide woodlot management and marking services to landowners. This is an excellent option for landowners who would like independent advice or an appraisal of their woodlot. Management plans are created that meet the specific goals of the landowner. Proper silviculture techniques and "Good Forest Practices" are encouraged to ensure the long-term health of the woodlot while meeting the needs of the landowner. Staff are continuing to implement management plans for Conservation Authority, Foundation and Lambton County lands.

Woodlands Conservation By-law

The Conservation Authority continues to administer the Woodlands Conservation By-law on behalf of the County of Lambton. This partnership not only assists with the regulatory aspect of the by-law, but has expanded the outreach and education related to conserving woodlands. Staff have found an increase in enquiries by landowners with regards to woodlot issues and how they relate to the by-law.

Healthy Watersheds

Grants Awarded to Conservation Authority Help Landowners

The Conservation Authority's Healthy Watersheds Program is an initiative that provides technical and financial assistance to improve and protect rural water quality. The SCRCa actively seeks grants that will bring dollars into the region to support the conservation efforts of landowners. Projects include wetland creation, sediment traps, agricultural erosion control structures, buffer strips, riparian/stream bank protection, wildlife habitat creation, windbreaks, reforestation, and native grassland habitat. In 2014, \$250,000 in grants were obtained for landowners from Environment Canada, Ministry of Natural Resources and Forestry, Ministry of the Environment and Climate Change, Ministry of Agriculture and Food, and the Trees Ontario Foundation.

- **Species at Risk Stewardship Fund** - \$47,000 in grant are available each year until 2016. This program, funded by the Ministry of Natural Resources and Forestry, provides assistance for landowners with projects located in the east and north branches of the Sydenham River.
- **Clean Water Program** - \$20,000 in grant are available annually for landowners with projects located in Middlesex County.
- **50 Million Tree Program** - Up to \$1,000 per acre for reforestation projects are available from Trees Ontario for projects one hectare or larger in size. A total of \$75,000 or more is available each year for landowner tree planting projects in the SCRCa watershed.
- **Sydenham River Habitat Stewardship Program** - \$48,650 in grant are available this year. This program is for landowners with projects located in priority area 1 for aquatic species at risk in the east branch of the Sydenham River above Dresden.
- **North Branch of the Sydenham Habitat Stewardship Program – Prevention** - \$12,500 in grant are available this year. This program is for landowners with projects located in the watershed of the North Branch of the Sydenham River to maintain/enhance habitat to prevent species from becoming at risk.
- **Healthy Lake Huron – Lambton Shores Program** - \$30,000 in grant are available until March 2015. This program, funded by the Ministry of the Environment and Climate Change and the Ministry of Agriculture, Food, and Rural Affairs, assists landowners with projects located in the priority area.
- **Healthy Sydenham Headwaters Initiative** - \$67,000 grant funded by a variety of sources including the Middlesex Stewardship Council, Ducks Unlimited Canada, and Middlesex Clean Water Program assists landowners with wetland creation and upland habitat restoration projects in the Sydenham Headwaters watershed.

In 2014 -15, \$226,000 in grants were provided to landowners resulting in 34 stewardship projects. The total cost of the projects was nearly \$280,000 with a land retirement value of \$426,000. In total, 29 hectares of land were restored. Over the last 14 years, the Conservation Authority distributed more than \$2.4 million in grants to landowners which resulted in over 780 projects worth \$8.4 million.

Healthy Sydenham Headwaters Initiative

With assistance from a grant through the Ontario Trillium Foundation, the SCRCa and Middlesex Stewardship Council have partnered to guide conservation and restoration efforts in the Headwaters of the Sydenham River. In addition to monitoring water quality in the watershed, five wetlands were created (7 hectares) in 2014 on private lands. Staff continue to meet with landowners seeking to implement stewardship projects on their property. Other partners providing funds for the Healthy Sydenham Headwaters Initiative include Environment Canada's Habitat Stewardship Program (Aquatic Species at Risk), Ministry of Natural Resources and Forestry, Ducks Unlimited Canada, and the Clean Water Program.



Tim Payne, Forest Management Specialist, discusses buffer options with a landowner along a watercourse in the Upper Sydenham River watershed. Grants are available to subsidize projects that improve water quality.

Invasive Species - Battling Phragmites

The Conservation Authority partners with the Lambton Shores Phragmites Community Group to help battle this invasive species in a provincially significant coastal wetland on Lake Huron. Along with the Municipality of Lambton Shores, the Conservation Authority is seeking funds to help deal with the Phragmites which has been a long-standing issue in this coastal wetland. In 2014, the Ministry of Natural Resources and Forestry provided \$10,000 and \$15,000 for work in 2015. The Great Lakes Guardian Fund will be providing \$20,000 which will be used in next year's work.



Phragmites, an invasive species, threatens important shoreline habitat along Lake Huron.

Reptile Monitoring

Through funding from the Ministry of Natural Resources and Forestry, a monitoring program continued in 2014 for turtles, snakes, amphibians, and lizards. In addition to the field work undertaken by SCRC staff, a number of community groups and students participated in workshops highlighting the importance of reptiles in our watersheds.

Highlights

- Road signs were installed at the McKeough Floodway to remind drivers that it is important to “brake for snakes”. Road mortality causes significant losses to populations of our Ontario snake species.
- In partnership with the Ontario Junior Rangers, staff from SCRC conducted a reptile and amphibian inventory in the Lambton County Heritage Forest.
- Jim Bogart, a professor from the University of Guelph, positively identified a mole salamander from the Lambton County Heritage Forest and Bowen’s South Wetland as a complex mix of Jefferson and blue-spotted salamander species.
- Participants in the “Discover Sydenham” program at the Strathroy Museum were able to handle a snake skin, turtle shells, mussel shells, and view pictures of the many reptile and aquatic species of the Sydenham River.
- Authority staff held a workshop at the Lambton County Road Crews Annual Spring Meeting to encourage road crews to report reptile sightings. During the warmer months, both road crews and reptiles spend a significant amount of time using roads. Jenny Pearce of Sciensational Ssnakes allowed participants to view and handle some of Ontario’s rare reptile species including the eastern foxsnake, and eastern hog-nosed snake.



Five-lined skinks, Ontario’s only lizard, are typically found in forest openings. They hibernate in groups under rocks or tree stumps and in rotting wood.

Fish Monitoring

With support from programs such as the Great Lakes Guardian Community Fund and the Ontario Trillium Foundation, SCRC staff have been able to complete fish community surveys in a number of subwatersheds including the Upper Sydenham River, St. Clair River Tributaries, and the Sydenham Headwaters.

Highlights from 2014 sampling:

- 17 sites were sampled in the Sydenham Headwater, Upper Sydenham, North Sydenham, Lake Huron and St. Clair River Tributaries watersheds.
- approximately 8,000 fish were examined
- almost 50 fish species were identified (there are approximately 160 freshwater fish species in Ontario with the Sydenham being home to at least 82 of these species).

The purpose of fish community surveys is to gain important information on fish species distribution and watershed health which is reported every five years through our Watershed Report Cards.



Helping Aquatic Species at Risk

The Sydenham River in southwestern Ontario is the only major watershed which lies completely in the Carolinian Life Zone and is relatively undisturbed by industrial development. This has made the river a biological treasure. The Sydenham River supports an incredible variety of aquatic life, or what we call biodiversity. At least 82 species of fish and 34 species of freshwater mussels have been found here, making it one of the most species-rich watersheds in all of Canada. Several species in the Sydenham River are found nowhere else in Canada, and some remain at only a few locations globally. Twenty-two species of fish, mussels and reptiles which live in and around the Sydenham River are nationally or provincially Species at Risk.

The Conservation Authority received federal and provincial funds to undertake research, site-specific habitat improvements, and development and distribution of an annual newsletter. An education program where students learn about the biology and ecology of species was implemented again in 2014.

Interpretive signs have been erected throughout the watershed at key points promoting the significance of the Sydenham River and an understanding of the diversity of life that inhabits this incredible river.



Map Turtles Released

Female northern map turtles were observed laying eggs on roadways by SCRCA staff in the month of June 2014. Many predated nests have been observed on these roadways. Due to the risk of loss from human activity, and predation, these eggs were collected and sent to an accredited facility for incubation. The eggs hatched and 23 hatchlings were released on site in August.



Municipal Drain Habitat Enhancement Program

Financial incentives were available for implementing habitat and water quality enhancements on municipal drain projects in the St. Clair River Area of Concern. This two-year pilot program, funded by the federal Great Lakes Sustainability Fund, supports the installation of fish habitat or sediment and erosion control features. To qualify, these enhancements must go above and beyond what is legally required. Suitable projects include grass buffers, fish refuge pools, and two-stage ("benched") drainage ditches.

For the 2013/14 round of funding, seven projects were partially financed through the program. A total of \$24,000 was awarded for grassed buffers, fish refuge pools, sediment pools and other enhancements.

SCRCA Supports Municipalities - Municipal Drains

Municipalities have a legal responsibility to work in accordance with Fisheries and Oceans Canada (DFO) requirements when municipal projects could impact fish habitat. From 1998 - 2013, SCRCA staff provided fish habitat advice for municipal drainage projects under an agreement with DFO. This helped protect fish habitat while streamlining the review and approval process for municipalities. This partnership agreement was cancelled by the federal government on November 25, 2013.

Upon request from the municipality, the SCRCA continues to comment on drainage projects to assist municipalities in meeting their obligations under the Fisheries Act and other regulatory requirements. In 2014, St. Clair Conservation staff provided advice for 183 drain projects which could affect fish habitat in our region.

Starting in 2013, the SCRCA began to issue Standard Compliance Requirements under the DART (Drainage Act & Section 28 Regulations Team) protocol. The protocol includes a set of Standard Compliance Requirements for regular repair and maintenance activities that, if followed, would serve as the written permission to proceed with work under the Conservation Authorities Act. In 2014, 118 Standard Compliance Requirements were issued.

At this time, the protocol only addresses the maintenance and repair of drains as required by the Drainage Act and does not address issues around new drains and improvements to existing drains. It also does not apply to permission under the federal Fisheries Act or the Ontario Endangered Species Act.

Water Quality Monitoring

Surface Water

Surface water samples are collected at 20 sites to provide water chemistry information for the following programs:

- Provincial Water Quality Monitoring Network
- Canada-Ontario Agreement on Great Lakes Water Quality
- Healthy Lake Huron – Lambton Shores Tributaries
- St. Clair River Area of Concern Tributaries
- Phosphorus Reduction Education

Field tests are conducted on parameters such as dissolved oxygen, pH, conductivity, and temperature, while samples are bottled and shipped to MOE to be analyzed for nutrients, *E. coli*, and metals.

The health of the aquatic habitats is also assessed by sampling the invertebrate organisms such as insects, worms and crustaceans that live on the bottom or benthos of the watercourse. Benthic samples were collected at 15 sites.

In 2014, funding was provided through the Ontario Community Environmental Fund from the Ministry of Environment and Climate Change to help offset sampling costs. Results of this sampling form the basis for the water quality grades reported in the SCRC Watershed Report Cards.

Groundwater

In an effort to better understand Ontario's groundwater resources, the Ministry of the Environment and Climate Change implemented the Provincial Groundwater Monitoring Network to monitor water quality and quantity in a number of test wells. The Network is a cooperative effort of the Conservation Authorities in Ontario, on behalf of the Ministry of the Environment and Climate Change. Water levels are monitored at the nine groundwater wells, and the water quality at eight groundwater wells.

One of the wells has been outfitted with radio-telemetry and is used by the province as part of its monitoring program for low water advisories.



West Nile Virus Control

Lambton County Community Health Services contracted the Conservation Authority to undertake the Lambton County Larvicide Program as part of its overall West Nile Virus Control Program. Approximately 16,000 catch basins were treated in Sarnia-Lambton, at Aamjiwnaang First Nation, and at the Dupont Plant in Corunna. Three separate rounds of application were completed over the summer. The catch basins were treated with a pelletized larvicide called methoprene. The treatment is designed to prevent mosquito larvae from becoming adult biting flies and reduce the risk of spreading West Nile Virus throughout the community.

Sydenham River Conservation Action Plans

A Conservation Action Plan (CAP) for the Sydenham River was developed by Carolinian Canada in cooperation with watershed municipalities, farm organizations, residents, conservation authorities, and interest groups. The Sydenham River CAP aims to protect natural treasures including species at risk; improve biodiversity through restoration of habitat; create healthy and sustainable ecosystems; enhance ecosystem services such as water quality for local communities; provide opportunities for economic viability; and engage citizens to work together toward a common, mutually-beneficial cause – a healthier environment for all.

Rural Stormwater Management Model

Healthy Lake Huron has released the Final Report about a project which has created a new computer model to better manage water running off of land during storm events in rural areas. Stormwater models are common in urban areas but some models were limited when they tried to represent the movement of water runoff in rural areas. This project was coordinated by the Ausable Bayfield Conservation Authority. Partners include federal and provincial ministries, public health, local government, and local conservation agencies working with community groups and landowners.

Staff from the SCRC participated on both the technical and communication teams. The partnership has worked since 2012 to develop the Rural Stormwater Management Model. This new technology is designed to work in rural areas while still maintaining the means to model urban areas as well. The project to create this new water quality technology received financial support from the Province of Ontario's Showcasing Water Innovation Program as well as support from other partners. For more information on this project visit www.ruralstormwater.com.

Drinking Water Source Protection

The purpose of the provincial Clean Water Act (2006) is to protect existing and future sources of municipal drinking water. Protecting water at the source – municipal wells and water intakes – is the first barrier in a multi-barrier approach to providing a safe, clean supply of water. The Act is part of the Ontario government's commitment to protecting and enhancing human health and the environment, as well as implementing the Walkerton Inquiry recommendations.

The St. Clair Region, Upper Thames River, and Lower Thames Valley Conservation Authorities have been working together, along with the Thames-Sydenham and Region Source Protection Committee, to develop a Plan to protect municipal sources of drinking water throughout the region. The Committee is a group of citizens, appointed under the Clean Water Act representing municipal, business, general public, First Nations and interest group sectors from across the region. The Committee is responsible for guiding the development of a local Source Protection Plan.



Source Protection Plan

Following comments from the province, stakeholders, and the public, the Thames-Sydenham and Region Source Protection Committee amended the Proposed Source Protection Plan and is in the process (in late December 2014 - early January 2015) to undertake formal consultation. Following this consultation, the Committee will review any comments received and make necessary changes before submitting the Plan to the province for final approval.

The goals of the plan are:

- To protect existing and future drinking water sources in the Source Protection Area.
- To ensure that for every area identified in an Assessment Report as an area where an activity is or would be a significant drinking water threat,
 - the activity never becomes a significant drinking water threat, or
 - if the activity is occurring when the Source Protection Plan takes effect, the activity ceases to be a significant drinking water threat.

The Source Protection Plan contains local policies that address a range of drinking water threats. Landowners with significant threat activities on their property will be required to follow these policies.

The Source Protection Committee worked hard to create a balance between the important goal of protecting our municipal supplies of drinking water and the burden this would create on municipalities and other implementers. In general, for existing activities that are a significant risk, the approach was to manage the risk through the use of Risk Management Plans and Prescribed Instruments. This allows the activities to continue while managing the risk such that the activity is no longer a significant threat to the drinking water source.

For future activities that would create a new significant risk, generally the approach was to prohibit this activity in those vulnerable areas where it would be a significant threat. Whenever possible, where other agencies have mechanisms in place that adequately address the significant threats, these mechanisms were used to reduce duplication. If additional policies were needed, these were developed to complement existing mechanisms. The Committee also felt it was important to address moderate and low risks. This was done primarily through education and outreach.

In addition to completing the plan, the focus of the Committee's work shifted in 2014 to updating the three Assessment Reports (including the St. Clair Region Source Protection Area) and preparing for implementation of the Plan upon approval by the Ministry of the Environment and Climate Change.

Great Lakes

Healthy Lake Huron

A team of dedicated environmental professionals joined together in 2011 to coordinate actions aimed at improving overall water quality along the southeast shores of Lake Huron. This group is leading the Healthy Lake Huron – Clean Water, Clean Beaches campaign, a concerted effort to address nuisance algae concerns and to promote safe and clean beaches and shorelines from Sarnia to Tobermory.

The Lambton Shores watershed was identified as one of five target watersheds. The SCRCA provides grants to farmers to implement Best Management Practices (BMPs) in Lambton Shores. In 2014, three landowners participated. These projects were part of the Lambton Shores Clean Water Cost-Share Program which offers grants to landowners for eligible projects that improve water quality in the Lambton Shores Watershed.

A number of other activities were undertaken as part of the Healthy Lake Huron Initiative:

- the SCRCA hosted the third annual Great Canadian Shoreline Cleanup event at Centre Upperwash Beach
- a *walk the watershed* event was held with landowners to seek out possible projects
- a workshop on cover crops was held in partnership with the Lambton Soil and Crop Improvement Association
- a new fact sheet on cover crops was produced and distributed
- volunteer events were held to plant wetland species and trees as part of the Forest Lagoon Habitat Revitalization Project
- a display at the Forest Fall Fair provided an opportunity for staff to engage with the community and promote Healthy Lake Huron initiatives
- a postcard was distributed to shoreline and rural landowners promoting stewardship grants
- monthly and storm event water quality sampling continues to evaluate impact of runoff on nutrients entering Lake Huron
- a community steering committee continues to provide input to ensure programs are meeting the needs of the Lambton Shores watershed

The Healthy Lake Huron Program is funded by Environment Canada and the province of Ontario through the Canada-Ontario Agreement (COA).



St. Clair River Area of Concern

The St. Clair River Area of Concern is one of 43 Areas of Concern the International Joint Commission has identified within the Great Lakes basin where there are known environmental problems. In each area, local partners are working together to implement Remedial Action Plans and take action so the area can be rehabilitated and removed from the list of Areas of Concern. The Conservation Authority is playing an important role in this plan by coordinating and managing projects. Delisting the St. Clair River as an Area of Concern under the Canada-US Great Lakes Water Quality Agreement is the ultimate goal of Ontario, Canada, and all local partners.

Contaminated Sediment Management

Contaminated sediments at three priority areas in the St. Clair River contain elevated levels of mercury and methyl mercury. Mercury was used in historical industrial processes. While these contaminated areas do not pose an immediate health risk to humans, the contaminants biomagnify in fish (such as pike) that humans eat. Biomagnification is the process through which chemicals build up in animals as predators eat smaller contaminated creatures.

A local multi-partner technical team studied ways to manage the contaminated sediment since 2009. Three management options were developed and extensive public and First Nation consultation was completed in early 2013. The preferred option of contaminated sediment removal by dredging with thin layer backfill was forwarded to the Federal and Provincial governments for funding. The governments are actively considering the dredging proposal. Detailed engineering and environmental assessments are the next steps in the process. The target date for completion of the clean-up is 2018-19.

Road to Recovery

The Canadian RAP Implementation Committee continues to work towards the removal of water-use and ecological impairments from the original list of problems. The decision to re-designate Beneficial Use Impairments (BUIs) to "Not Impaired" status is reached through consensus with the Remedial Action Plan partners, and is endorsed by the St. Clair River Binational Public Advisory Council (BPAC), First Nations, and government agencies.

The "Degradation of Aesthetics" BUI was assessed and found to be unimpaired in 2013. This finding was endorsed by the First Nation communities and BPAC and celebrated by cruising the river to marvel at its beauty in September 2014. A draft status assessment report of the "Restrictions on Dredging Activities" BUI was completed this past year and found to be unimpaired. This BUI is of particular interest to the Walpole Island First Nation as dredging and disposal activities have occurred in their territory. Engagement and consultation with them is ongoing. We hope to complete this part of the process early in 2015.

Community Conservation

High School Students Get Hands-on Experience

Grade ten students enrolled in the Environmental Resource Management course at the St. Clair Secondary School in Sarnia were introduced to reptile species at risk of Ontario and watershed management techniques at the Perch Creek Habitat Management Area. Students were given a guided hike to Perch Creek where they collected aquatic bugs, assessed stream features, viewed fish captured from minnow traps, and obtained water quality data. Grants from the Ontario Trillium Foundation and the Ministry of Natural Resources and Forestry Species at Risk Stewardship Fund have been a great assistance to making programs like these possible.



Kettle and Stony Point Aquatic Sampling Demonstration

Thanks to the Ontario Trillium Foundation grant, staff from the SCRCA demonstrated how to conduct a fish survey and aquatic sampling to members of the Kettle and Stony Point First Nation. In addition, outdoor education and biology staff members visited Hillside Elementary School to lead an outdoor education program with a focus on how important the Kettle and Stony Point First Nation area is to a wide range of species.



Reptile and Amphibian Survey

With funding from the Ministry of Natural Resources and Forestry Species at Risk Stewardship Fund grant, staff from the SCRCA worked with MNR's Junior Rangers to conduct a reptile and amphibian inventory in areas of the Lambton County Heritage Forest. Participants were eager to locate reptiles and amphibians, and learn about each species.

Aamjiwnaang Earth Day Celebration

SCRCA staff participated in the Aamjiwnaang First Nation's Community Earth Day celebrations. Staff provided community members with information about the unique and valuable wildlife found within our watershed, our programs to protect Species at Risk, critical habitat, and vulnerable ecosystems. Our staff were very pleased with the day, exchanging smiles, stories and perspectives with approximately 150 members of the Aamjiwnaang community.

Strathroy Tree Planting

The Municipality of Strathroy-Caradoc, local schools, St. Clair Region Conservation Foundation, Trees Canada, TD Friends of the Environment Foundation, and the Authority, joined together to plant 200 trees along boulevards in Strathroy. This is part of a long-term plan by the municipality to green its streetscapes.



Events - Experience our Watershed

Maple Syrup Festival

1,000 people visited the A.W. Campbell Conservation Area to experience demonstrations of syrup production from times past. Tours included a story of how maple syrup was discovered by our First Nations people who later taught pioneers the wonders of this important staple. The festival was held March 15 - 16. The Alvinston Firemen's Association provided the traditional pancake and sausage meals at the Alvinston Community Centre.



Strathroy Paddle Day

This was an opportunity to introduce the Strathroy community to the water trail established along the Sydenham River. Boy Scouts assisted by supplying additional canoes and helping new paddlers. 114 people came out to explore the water trail.



Sydenham River Canoe Race

Thirty-nine canoes and kayaks participated in the Sydenham River Canoe and Kayak Race on April 13. A late arrival of spring almost caused the race to be postponed but the weather cooperated and over \$1,600 was raised for Conservation Education. Alexander Wingrove and Janice Leboeuf were tied for the most money raised and the fastest time for the 17 km competitive race was won by Dean Brown and Bob Vincent at 1 hour 25 minutes and 2 seconds.



Art Walk

The Conservation Authority participated in Artwalk, a weekend-long festival celebrating the development of Sarnia's arts and culture district.



A Geocaching Adventure

Geocaching is a high-tech treasure hunt which uses a global positioning system (GPS) unit to locate a hidden cache (treasure). The event was held at the Lorne C. Henderson Conservation Area where 45 people took to the woods to discover hidden caches.

Conservation for Kids

St. Clair Conservation reaches out to students with a simple message – what can you do to protect our watersheds? Over 25 programs have been developed to introduce students to nature and to empower them to make a difference. These programs are designed to create an enthusiasm for our natural heritage which will carry over into the student's adult life. The Authority offers outdoor and in-class programs. Many of the education programs are supported by donations from businesses and organizations. In 2014, 11,700 students participated in conservation education classes.



Outdoor Programs: Outdoor Education brings classroom studies to life. 28 programs are available at one of four Conservation Areas located throughout the region. In 2014, 6,600 students participated in outdoor classes.



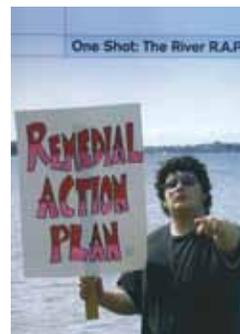
Spring Water Awareness Program: This program was developed to warn students about the hazards of fast flowing rivers and melting ice and has reached the classroom thanks to sponsorship by Union Gas. In February and March, 1,200 students participated in the program.



River Bottom Critters and Groundwater: River Bottom Critters is an in-class program, sponsored by the Sarnia-Lambton Environmental Association (SLEA), which gives students a first-hand opportunity to see how river bottom animals can be used to determine the quality of the aquatic health of a watercourse. 2,700 students poked and probed through the mud and discovered the wealth of life which thrives on the St. Clair River bottom. SLEA also sponsors Go With the Flow, which is a groundwater program taught by Authority staff in the classroom. The program introduced 850 grades 4 - 8 students to the fundamentals of groundwater hydrology and the importance of protecting our groundwater resources.



Alternative Energy: This new program examines the issues related to alternative energy sources. Sponsored by Enbridge, the program is taught both in the classroom and as an outdoor class. There was considerable interest in all grade levels so we have expanded the program to reach grades 2 - 12. In 2014, 440 students participated.



The River Rap: The Friends of the St. Clair River sponsor a program that helps teach students about impairments to the St. Clair River and the progress toward the goal of delisting the river as an Area of Concern. The highlight of the program is One Shot - The River RAP, a RAP video produced locally about the St. Clair River Remedial Action Plan. You can see the RAP video on You Tube by searching St. Clair Region Conservation. 150 students participated.

Reaching Out

Kid's Funfest: This Sarnia event focused on children and provided an opportunity for the Conservation Authority to engage youth in nature-based activities.

Agriculture in the Classroom: The Conservation Authority works with the Agriculture in the Classroom program at both the Brigiden and Wyoming Fairs. Our display focused on common sources of pollution found on a farm and solutions to those problems. A hands-on 'Enviro-scape' model demonstrated how pollution travels across a watershed causing pollution of downstream water bodies.



Circles Program: A geocaching event was held to support Lambton County's Circles Program. This is an initiative that helps cycle people out of poverty. Families are matched with community members who provide assistance. They have monthly gatherings and our geocaching is one of their requested events.

Ontario Land Trust Alliance Annual Gathering: SCRCA education staff delivered a presentation about the Young Naturalist group as part of a panel of speakers entitled 'Involving Youth in Conservation'. The conference included a discussion on the benefits of involving youth, steps to developing a youth program, necessary organizational support and sharing of successes and struggles of the program.

Chatham-Kent, Lambton Children's Water Festival: The SCRCA participates in this event that attracts 1,800 students over the three days of the festival. In 2014, however, school buses were cancelled for two of the days due to fog.

Camp Blast - Our Lady Immaculate: Conservation Authority staff introduced kids at "Camp Blast" to aquatic species living in their own community. About 20 participants checked minnow traps, investigated rare mussel species and learned about our native reptiles.



Young Naturalist and Junior Conservationists

The Conservation Authority continues to sponsor the Lambton Wildlife Inc.'s youth programs. Both groups meet once per month with SCRCA staff at local wild spaces to learn about conservation, habitats and species at risk in the watershed. Overall, approximately 35 youth and their families benefit from these monthly meetings.



Conservation Awards

The Conservation Authority offers Conservation Awards to deserving individuals and groups who have contributed to the environmental wellbeing of our region. The 2014 recipients were:

Tearza and Taryn Daly: Ms. Daly and her 11 year old daughter Taryn organized a Great Shoreline Cleanup along with family and friends. They cleaned up Highland Glen and the beach in that area three times and will be holding another in the spring of 2015.

Lambton County: Bowen's Creek is land owned by the County of Lambton. The County supported efforts of the Conservation Authority to initiate a project on their land. The Bowen's Creek project started in 2011 with the construction of eight hectares of wetland. Since 2011, 51,000 trees and 5 hectares of tall grass prairie were planted to enhance the existing 20 hectare site.

Bonduelle Foods, Strathroy: Bonduelle donated \$10,000 to support facilities at the Strathroy Conservation Area. Through this project, 400 metres of new trail were constructed along the lake, four picnic tables on cement pads (including one wheel chair accessible table) were constructed and two park benches were installed along the new lake trail.

Aamjiwnaang First Nation Environment Committee: The Aamjiwnaang Environment Committee has been an active participant with the efforts to delist the St. Clair River as an Area of Concern. In addition to undertaking projects, they have been instrumental in our efforts to engage the community in meaningful consultation. In 2013-2014, the Committee coordinated efforts to restore a stretch of Talfourd Creek adjacent to the Community Centre in Bear Park. The main goal of the project was to bring the creek back into the lives of the community. By restoring the creek, it is hoped that a new appreciation of the creek is fostered, therefore returning the creek to the people.

Conservation Lands

The St. Clair Region Conservation Authority and its Foundation own more than 2,100 hectares of land including beaches along Lake Huron, campgrounds, day use parks, wetlands and forests. A wide range of recreation activities are available on these lands including swimming, boating, hiking, bird watching, camping, fishing and hunting.

Camping

Our three campgrounds were busy in 2014 with many successful events and activities for campers. Some of these events included Canada Day Fireworks, Elvis Day, Geocaching, Fish Fries, Pig Roasts, and live entertainment. Our campgrounds are very fortunate to have a group of dedicated volunteers who assist staff in delivering many events and activities throughout the camping season.

Campgrounds exceeded \$1 million in gross revenue. With 522 serviced campsites and 407 seasonal campers, these three campgrounds provided a significant contribution to the local economies while providing employment opportunities for over 22 contract and seasonal staff.



Bonduelle Supports Conservation

The Strathroy Conservation Area received a helping hand thanks to the efforts of Bonduelle employees and a donation of \$10,000. The project began with a clean-up of the park and trail area followed by the construction of trails, benches and picnic areas including a wheel chair accessible picnic table.

Through this project, 400 metres of new trail were constructed along the lake, four picnic tables on cement pads (including one wheel chair accessible table) were constructed, and two park benches were installed along the new lake trail.



Butch Siebenmorgen, Strathroy Plant Manager, for Bonduelle presents Kevan Baker, Director of Lands for the St. Clair Region Conservation Authority with a donation to support improvements at the Strathroy Conservation Area.

Take a Hike

Hiking is becoming a very popular pastime. The Conservation Authority has been very active in making improvements to its network of over 40 km of trails throughout the region. The St. Clair Region Conservation Foundation and other donors have helped provide funds for the purchase of materials for boardwalks and bridges and for gravel to help improve accessibility to the trails. For more information on trails, visit our website at www.scrca.on.ca and select the hiking button.



Conservation Area Development Summary

Lorne C. Henderson Conservation Area

Township of Enniskillen

145 serviced sites with 118 seasonal campers

- reservoir weir reconstructed
- trails upgraded and two boardwalks installed to provide greater accessibility
- phone system upgraded

Warwick Conservation Area

Township of Warwick

232 serviced sites with 189 seasonal campers

- 300 metre bike cross trail constructed
- new trail constructed and existing trails upgraded
- new siding installed on pool support buildings

A. W. Campbell Conservation Area

Township of Brooke-Alvinston and Municipality of Southwest Middlesex

145 serviced sites with 100 seasonal campers

- bike cross trail constructed
- WIFI system upgraded
- pool washroom building upgraded

Strathroy Conservation Area

Municipality of Strathroy-Caradoc

- main trail bridge enlarged to accommodate an eroding streambank
- new trail constructed and picnic tables and benches installed through a donation from Bonduelle Foods

C.J. McEwen Conservation Area

Town of Plympton-Wyoming

- renovations to washroom building completed

Wawanosh Wetlands Conservation Area

City of Sarnia

- new property identification sign installed
- eight new picnic tables constructed



Grasses Planted to Protect Dune

On a cold, windy November day, SCRCA staff planted over 1,000 native dune grass plugs in C.J. McEwen Conservation Area. The dune rehabilitation project was supported with funding from the Ministry of Environment and Climate Change. Dune grass roots help secure sand on the beach and reduce erosion by wind and water.





Conservation Areas	Camping			swimming pool	beach	picnic shelter	play ground	trails	natural area no facilities	phone (519)
	serviced lots	seasonal and overnight	group							
A. W. Campbell	✓	✓	✓	✓		✓	✓	✓		847-5357
Warwick	✓	✓	✓	✓		✓	✓	✓		849-6770
L. C. Henderson	✓	✓	✓	✓		✓	✓	✓		882-2280
Coldstream	✓		✓			✓	✓	✓		666-0190
Shetland	✓	✓	✓			✓	✓			692-5148
Wawanosh Wetlands						✓		✓		245-3710
Highland Glen					✓	✓				245-3710
C.J. McEwen					✓					245-3710
Clark Wright								✓		245-3710
Bridgeview						✓	✓	✓		882-2350
Strathroy								✓		245-3710
Esli G. Dodge						✓	✓	✓		786-2335
Crothers						✓	✓	✓		360-1998
Tony Stranak						✓	✓	✓		360-1998
McKeough Floodway								✓		892-3824
Management Areas										
Sinclair									✓	245-3710
Huff Woodlot									✓	245-3710
Perch Creek								✓		245-3710
Moore								✓		245-3710
Marthaville								✓		245-3710
Harrison Woodlot									✓	245-3710
Bates Lands									✓	245-3710
Gawne									✓	245-3710
Maples Woodlot									✓	245-3710
Reid Property									✓	245-3710
Cuddy Woods								✓	✓	245-3710
Stirling Wetlands									✓	245-3710
Keith McLean									✓	245-3710



Management of Lambton County Forests

Based on the Conservation Authority's experience in managing natural areas, The County of Lambton has contracted out the management of a number of its properties to the Conservation Authority.

- Lambton County Heritage Forest
- Perch Creek Habitat Management Area
- Marthaville Habitat Management Area
- Bowen's Creek Habitat Management Area
- Moore Landfill Buffer Lands
- Szabo Forest
- Meadowview Villa Forest

In 2014, work focused on maintaining the trails and completing an inventory, mark and tender on a thinning operation. In addition, tree planting, as recommended in the approved management plans, occurred at the Bowen's Creek Management Area, trail work and tree planting was undertaken at Perch Creek, and a new sign was installed at the Marthaville Management Area.



W. Darcy McKeough Floodway

The W. Darcy McKeough Floodway, located 12 km north of Wallaceburg, was built to protect the community of Wallaceburg and portions of the former Townships of Chatham and Sombra from severe flooding. Since 1984, the McKeough Floodway has been operated six times. In 2014, a number of maintenance and repair items were completed on the Floodway:

- inspection of concrete outlet structure to determine preferred repair method
- repair of a culvert draining into floodway is underway - several other culverts are showing signs of failure
- monitoring of slump erosion on the floodway
- continued to deal with vandalism by attempting to restrict unauthorized access by ATVs
- weed control in channel bottom and side slopes

McKeough Upstream Lands

Property Management Plans for 11 agricultural rental parcels in the McKeough Upstream Lands have been completed with recommendations and management actions for these properties. Property Management Plans are designed to highlight the property description, historical use, farming practices, forest management, soil and water management, species at risk management, and other key features of the property while addressing environmental risks through best management practices such as riparian planting along watercourses and installing erosion control structures.

Work is continuing to enhance agricultural lands owned by the Conservation Authority. Over the last two years, 11 acres of buffers have been planted and 2 wetlands totalling 14 acres were created on marginal lands. Two erosion control projects were completed to reduce the amount of sediment entering the north branch of the Sydenham River. Grants from Wildlife Habitat Canada, Ducks Unlimited, Ministry of Natural Resources and Forestry, and the Ontario Land Trust Assistance Program have helped fund these initiatives.

Keith McLean Conservation Lands

Mr. Keith McLean left his 130 hectare property to the St. Clair Region Conservation Foundation when he passed away in 2012. The estate was settled and the property transferred to the Foundation in 2014. The Foundation has entered into a management agreement with the Conservation Authority to manage the lands on their behalf.

One of the requests of Mr. McLean was that a property overseer live on site to ensure the property is maintained and the public welcome to explore the property. The house was renovated and a couple were hired in 2014. The Conservation Authority is currently expanding upon a Management Plan that will include habitat improvements and the development of a trail.

Union Gas donated funds through its Helping Hands In Action Program to buy 30 Carolinian Trees for the Keith McLean Conservation Lands. About 15 Union Gas employees also came out to plant the trees and to tour the Keith McLean Conservation Lands.



Conservation Foundation

Foundation Board of Directors

Duncan Skinner, President
Lyn Goddard, Vice President
Norm Giffen, Treasurer
Steve Arnold
Bill Bilton

Ken Brooks
Ralph Coe
Ottavio Colosimo
Rex Crawford
John Simmons

Local Business Supports Conservation Education

The Foundation continued its efforts in 2014 to seek corporate support for Conservation Education. We wish to sincerely thank the following organizations for their support of conservation education this year.

Sarnia-Lambton Environmental Association

The Sarnia-Lambton Environmental Association (SLEA) donated \$30,000 to support two in-class education programs dealing with the use of benthic invertebrates to measure river quality and the importance of our groundwater resources. Over the last 18 years, SLEA has donated \$484,000 to conservation education.

Enbridge

Enbridge is in the second year of a three-year commitment of \$10,000 per year to support an Alternative Energy Program. This program is taught both in the classroom and at the Lorne C. Henderson Conservation Area.

TD Friends of the Environment Foundation

A \$2,000 donation was made to construct a boardwalk and erect a sign promoting the values of wetlands. These new features at the Lorne C. Henderson Conservation Area will assist students while undertaking pond studies.



Memorial Forests

The St. Clair Region Conservation Foundation launched the memorial forest program in 1987 with the purpose of raising funds to reforest lands within our region. To date, 13,400 trees have been dedicated covering 45 different sites. Through the program, the Foundation arranges for the dedication of trees which have been planted from donations received directly from members of the community. In addition to these trees, the Foundation receives donations from the McKenzie and Blundy Funeral Home, Sarnia; Eric F. Nicholls Funeral Home, Wallaceburg; and the Denning Brothers Funeral Home, Strathroy and have established separate memorial forests to recognize this contribution to the environment.

Through the Foundation, trees can be dedicated at any of the Authority's Conservation Areas. In 2014, 521 trees were dedicated and more than 1,000 people attended dedication ceremonies held at the various memorial forests.

President's Award

Mr. Nick Prigioniero was awarded the 2014 President's Award for his generous donation of 2.8 hectares of forest and provincially significant wetland to the Conservation Authority in 2013. This land abuts the Strathroy Conservation Area. This parcel includes rare plants which are now protected as part of a Conservation Area. The President's Award recognizes outstanding individuals and organizations that support the work of the Conservation Authority through donations.



Duncan Skinner, President of the St. Clair Region Conservation Foundation (right) presents Mr. Prigioniero with the 2014 President's Award.

Foundation Supports 2014 Projects

- \$7,500 - support addition to the workshop at the Clark Wright Conservation Area
- \$5,000 - support a 3-D Mapping Project that will improve the quality of the Conservation Authority's mapping resources
- \$3,000 - tree planting
- \$15,000 - purchase of equipment for benthic and water quality monitoring



Foundation Land Donations

The Foundation accepts land donations that further the objectives of the St. Clair Region Conservation Authority by preserving important natural areas. To date, the Foundation has received 16 land donations totalling 455 hectares. The Conservation Authority manages these lands on behalf of the Foundation.

- **Bates Conservation Lands**, Municipality of Chatham-Kent, 29 ha, qualified as an Ecological Gift through Environment Canada
- **Clark Wright Conservation Area**, Municipality of Strathroy-Caradoc, 20 ha
- **Cochrane Property**, Enniskillen Township, 1 ha
- **Cuddy Woods**, Municipality of Adelaide-Metcalf, 7 ha
- **Evoy Woodlot**, Township of Enniskillen, 36 ha (irrevocable trust agreement)
- **Fraser Property**, Municipality of Lambton Shores, 1 ha
- **Gawne Property**, Township of Dawn-Euphemia, 40 ha
- **Harrison Woodlot**, The Township of Middlesex Centre, 8 ha
- **Huff Property**, Municipality of Chatham-Kent, 12 ha qualified as an Ecological Gift through Environment Canada
- **Keith McLean Conservation Lands**, Municipality of Chatham-Kent, 130 ha
- **Maples Woodlot**, Town of Plympton-Wyoming, 3 ha
- **Murray Property**, Municipality of Lambton Shores, 1 ha
- **Reid Conservation Area**, Township of St. Clair, 69 ha, qualified as an Ecological Gift through Environment Canada
- **Sinclair Property**, Township of Dawn-Euphemia, 80 ha
- **Stirling Wetlands**, Municipality of Chatham-Kent, 12 ha
- **Western Land Company Property**, Municipality of Strathroy-Caradoc, 6 ha

Conservation Scholarships Awarded

The Conservation Scholarship program rewards graduating high school students continuing their post-secondary studies in a conservation-related field based on their academic achievement and their demonstrated interest and involvement with the environment. In total, \$3,000 was awarded across the St. Clair region this year.

A.W. Campbell Memorial Scholarship: two \$1,000 awards
Devan Spradbrow, St. Clair Secondary School
Erich Maxfield, St. Clair Secondary School

Tony Stranak Conservation Scholarship: one \$500 award
Lindsey Boere, Holy Cross Catholic Secondary School

Mary Jo Arnold Conservation Scholarship: one \$500 award
Emily Marchand, Lambton-Kent Composite School

The scholarships are made possible through trust funds established by the St. Clair Region Conservation Foundation and its donors.

Bingo Supports Conservation

Thanks to the many Foundation volunteers who assisted with our bingo program in Sarnia, the Foundation was able to support several conservation programs in 2014. A total of \$12,500 was provided to support conservation education, trails, visitor services, and tree planting throughout Lambton County.

Ecological Gifts

Three of the properties have qualified as an Ecological Gift through Environment Canada. Canada's Ecological Gifts Program provides a way for Canadians with ecologically sensitive land to protect nature and leave a legacy for future generations. Made possible by the terms of the Income Tax Act of Canada, it offers significant tax benefits to landowners who donate land or a partial interest in land to a qualified recipient. Recipients, such as the Conservation Foundation, ensure that the land's biodiversity and environmental heritage are conserved in perpetuity.

Finance and Administration

The Conservation Authority had a successful year in program development and financial management. On an ongoing basis, Authority staff work to find funds to undertake the proposed projects and to take advantage of funding opportunities that arise over the year. Efforts to find alternative sources of funds have helped the SCRCA maintain the second lowest municipal levy level amongst the 36 Conservation Authorities at only 17.4 % of total budget.

Employment Programs

The St. Clair Region Conservation Authority actively seeks opportunities to provide employment for local youth and those who are seeking to gain valuable work experience. In 2014, the SCRCA was successful in obtaining grants to hire 16 people which assisted in a variety of conservation programs.

Job Creation Partnership: contribution agreement for \$136,000 with the Ministry of Training, Colleges and Universities to provide employment training for seven people for 26 to 42 weeks

Summer Job Service: \$3,600 provincial grant to provide a wage subsidy for six summer students

Summer Experience: \$6,000 provincial grant to employ two students

Staff Retirements

Two staff retired in 2014. Claude Lafrance, St. Clair River RAP Coordinator, retired in December after taking on this role in 2010. Claude's experience from the Ministry of the Environment and Climate Change helped to propel the St. Clair River RAP process forward.

Diane Brodie, Payroll and Accounting Clerk retired after 30 years with the Conservation Authority. Diane's remarkable dedication to our organization is very greatly appreciated and will be missed.

We wish the very best to Claude and Diane as they embark on a new chapter in their lives.

Administration Office

Muriel Andreae, Manager of Biology
Lisa Atkinson, GIS/Photogrammetry Technician
Kevan Baker, Director of Lands
Rick Battson, Director of Communications
Diane Brodie, Payroll and Accounting Clerk (January - December)
Erin Carroll, Aquatic Biologist
Stephen Clark, Water Resources Specialist
Dallas Cundick, Environmental Planner/Regulations Officer
Melissa Deisley, Regulations Officer
Marlene Dorrestyn, Administrative Assistant
Chris Durand, IT/GIS Coordinator
Patricia Hayman, Director of Planning
Sarah Kellestine, Payroll and Accounting Clerk (December)
Claude Lafrance, St. Clair River RAP Coordinator (January - November)
Heather Long, Receptionist/Administration Clerk
Brian McDougall, General Manager
Tim Payne, Forest Management Specialist
Tracy Prince, Director of Finance
Girish Sankar, Manager of Water Resources
Alison Seidler, GIS Specialist
Jeff Sharp, Conservation Services Technician
Steve Shaw, Manager of Conservation Services
Kelli Smith, Biological Technician
Sara Storey, Data Entry Clerk
Donna Strang, St. Clair River AOC Research Assistant (January - November), RAP Coordinator (December)
Jessica Van Zwol, Healthy Watershed Specialist

Drinking Water Source Protection

John Campbell, Source Water Protection Database Specialist
Michelle Fletcher, Source Protection Policy Advisor
Deb Kirk, Administrative Assistant

Field Offices

McKeough Floodway

Shane White, Superintendent

A.W. Campbell Conservation Area

Mike Tizzard, Superintendent

Don Skinner, Assistant Superintendent

Lorne C. Henderson Conservation Area

Terry Barrie, Superintendent

Mark Bakelaar, Assistant Superintendent

Sharon Nethercott, Conservation Education Coordinator

Melissa Gill, Conservation Education/Community Partnership Technician

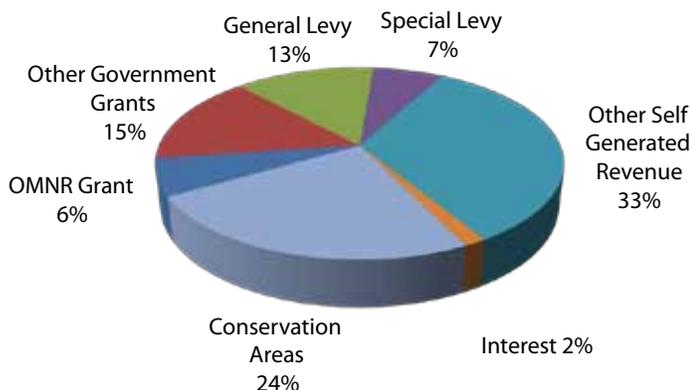
Warwick Conservation Area

Bill Turner, Superintendent

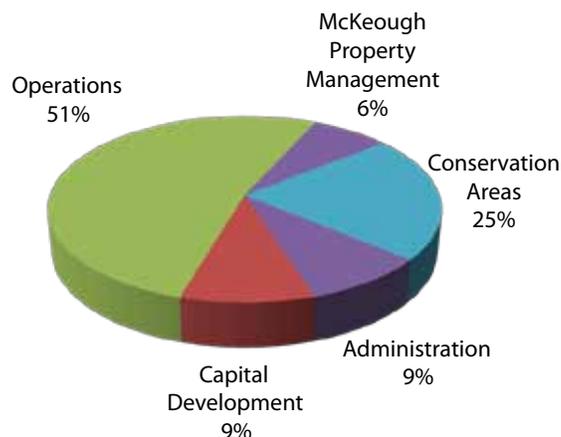
Glenn Baxter, Assistant Superintendent

2014 Revenue and Expenditures

Revenue - \$4,991,435



Expenditures - \$4,924,641



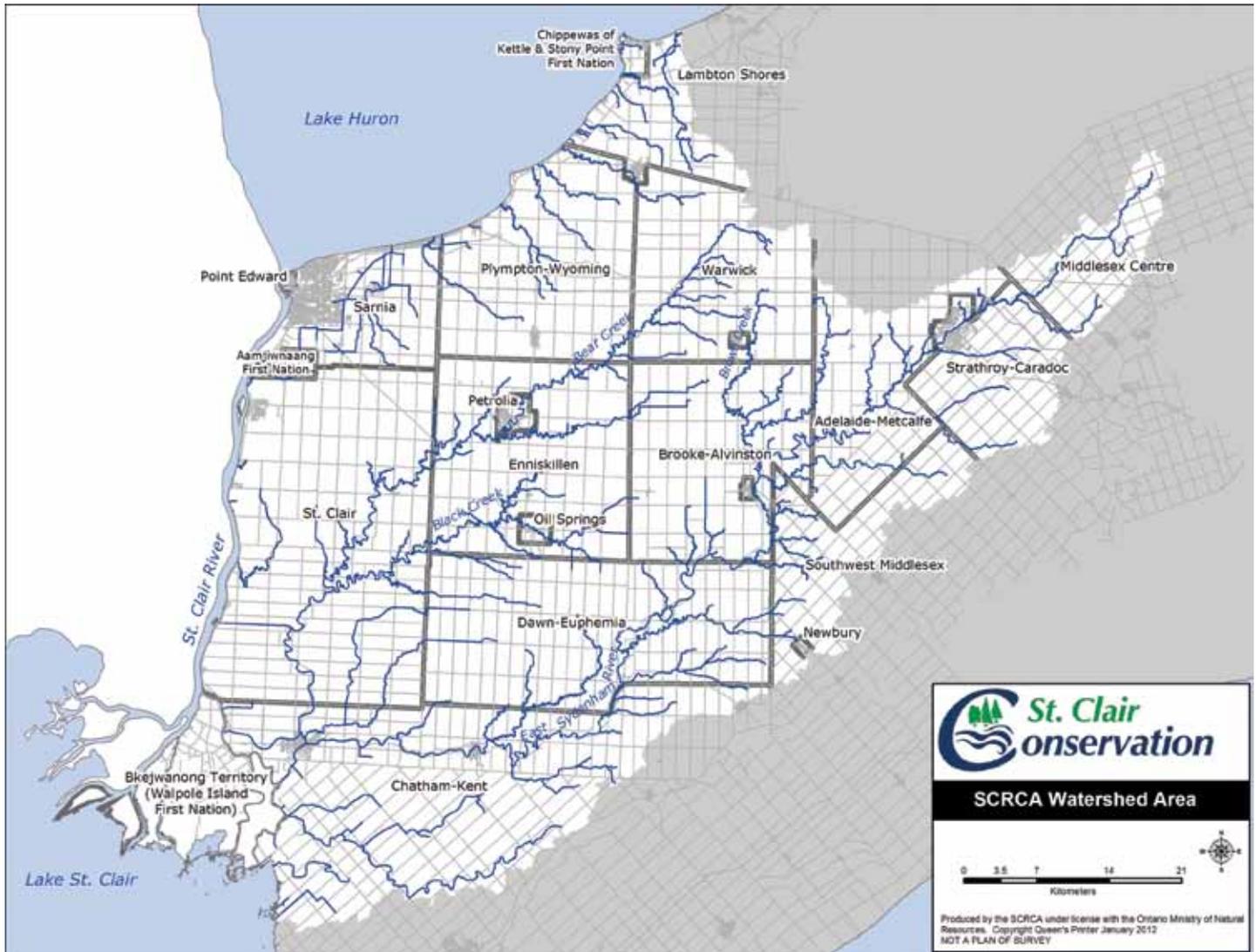
Supporting Conservation

Each year the Conservation Authority actively seeks additional grants to bring funds into the region to support conservation. We thank the many organizations that provided grants totalling more than \$1.7 million to support conservation programs.

Species at Risk (MNR) Reptiles at Risk Habitat Stewardship Program	\$43,000
Habitat Stewardship Program for Species at Risk (EC)	\$81,000
Water and Erosion Control Infrastructure (MNR)	\$524,000
St. Clair River AOC (MOE/EC)	\$130,000
Habitat Programs (MNR/COA) Phragmites Control Buffers	\$22,000
Drinking Water Source Protection (MOE)	\$100,000
Great Lakes Sustainability Fund (EC) Fish Habitat Enhancement (50,000) Bowen's Creek (39,500) Cathcart Erosion Control (103,000) GIS (25,000)	\$218,000
Canada-Ontario Agreement (MOE/MNR) Cathcart Park, LAWSS	\$90,000
Ontario Great Lakes Guardian Fund Cathcart Park	\$23,000

Wildlife Habitat Canada	\$22,000
Ontario Trillium Foundation Middlesex Stewardship Council Lake Huron Watersheds	\$87,000
Healthy Lake Huron (MOE/OMAFRA/EC)	\$98,000
Ontario Community Environment Fund (MOE)	\$20,000
Trees Ontario	\$79,000
Tree Canada	\$49,000
Ducks Unlimited Canada	\$13,000
Ontario Land Trust Assistance Program Bowen's Creek McKeough Upstream Lands Peers Wetland	\$14,000
Employment Programs Service Canada Employment Ontario Ministry of Training Colleges and Universities	\$146,000
Industry Sarnia-Lambton Environmental Association Enbridge TD Friends of the Environment Foundation OPG Union Gas	\$75,000
Friends of the St. Clair River	\$3,000

EC - Environment Canada
MNR - Ministry of Natural Resources and Forestry
MOE - Ministry of the Environment and Climate Change
OMAF - Ministry of Agriculture, Food and Rural Affairs



Facts and Figures

Watershed Area - 4,100 km²
 Population - 167,000
 Drainage area of the Sydenham River - 2,724 km²

Land owned by Conservation Authority - 1,698 ha
 Land owned by Conservation Foundation - 455 ha
 Land managed by Conservation Authority (not owned) - 543 ha
 Flood Easements - 648 ha

East Branch of the Sydenham River
 total length - 165 kilometres
 total fall - 106 metres

North Branch of the Sydenham River
 total length - 137 kilometres
 total fall - 77 metres

science

sustainability

educate

engagement

vigilance

recovery

partner

healthy

vision

explore

action

protection



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