



Annual Report 2020



A Message from Our Chair

The last year has been one of the most challenging and unprecedented years in our history. The 2020 COVID-19 pandemic required significant alterations to the daily operations of the St. Clair Region Conservation Authority (SCRCA) to ensure the health and safety of our communities, staff, and Board of Directors. Meetings were held online, events were cancelled, and where possible, staff completed their duties from home. I want to thank our staff and Board for their resilience and perseverance during these difficult times.

If one positive could be drawn from the past year, it is the renewed connection and need by our communities for safe outdoor spaces to enjoy. The mental and

physical health benefits of spending time in nature have been thoroughly documented in research. Traffic at our 15 Conservation Areas increased significantly throughout the pandemic. The SCRCA was able to keep these areas open to the public thanks to the cooperation of our visitors in following COVID-19 quidelines.

Our staff showed tremendous innovation and creativity to maintain our services and connect with our watershed communities. Over 56,000 tree seedlings were planted throughout the St. Clair Region, freshwater mussels were studied along a 4 km stretch of the Sydenham River, and over 12,000 teachers, students, and parents accessed our conservation education department's virtual field trips to the Lorne C. Henderson Conservation Area.

Our accomplishments would not have been possible without the support, patience, and understanding of our local communities and partners. As we enter 2021, the SCRCA will continue to provide watershed services in new and creative ways to work towards reaching our vision of a healthy and sustainable natural environment in the St. Clair Region.

Ja Vaas

Joe Faas Chair, Board of Directors

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.

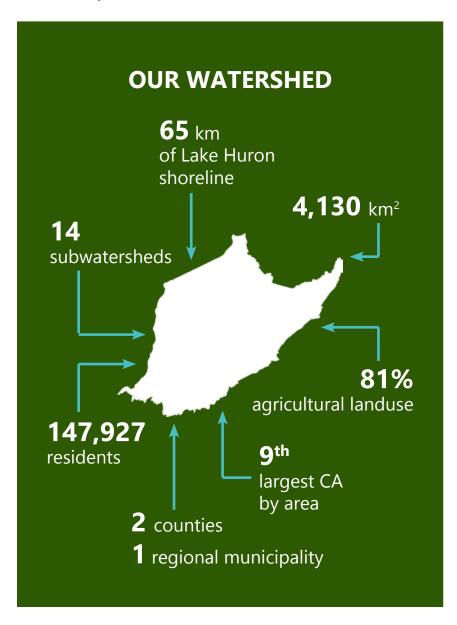
Our Goals

- 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.

About Us

The St. Clair Region Conservation Authority (SCRCA) is one of Ontario's 36 Conservation Authorities (CA) responsible for the conservation, restoration, and management of natural resources within its watershed. The St. Clair Region includes the Sydenham River watershed and smaller watersheds that drain directly into southern Lake Huron, the St. Clair River, and northeastern Lake St. Clair.

Our programs aim to: 1) reduce the risk to life and property from flooding and erosion; 2) improve water quality; 3) promote habitat creation and stewardship; 4) provide outdoor recreation opportunities; 5) increase environmental awareness and literacy; and 6) monitor and protect our most vulnerable species. We achieve this in cooperation and partnership with our member municipalities, government agencies, Indigenous communities, community groups, local landowners, and businesses.



Board of Directors

The SCRCA is governed by a Board of Directors appointed by the 17 member municipalities we serve.

Township of Adelaide Metcalfe
Betty Ann MacKinnon

Municipality of Brooke-Alvinston
Frank Nemcek

Municipality of Chatham-Kent Joe Faas Aaron Hall

Township of Dawn-EuphemiaAlan Broad

Township of Enniskillen/
Village of Oil Springs

Kevin Marriott

Municipality of Lambton Shores
Lorie Scott

Municipality of Middlesex Centre
Dan McMillan

Town of Petrolia
Brad Loosley

Town of Plympton-Wyoming
Ron Schenk (Jan - May)

Ron Schenk (Jan - May) Netty McEwen (Jun - Dec)

Village of Point Edward
Larry Gordon

City of Sarnia

Andy Bruziewicz Terry Burrell Mike Stark

Municipality of Southwest
Middlesex/Village of Newbury

Mark McGill

Township of St. Clair

Pat Brown Steve Miller

Municipality of Strathroy-Caradoc

John Brennan Frank Kennes

Township of Warwick
Jerry Westgate



Flood Operations

11 stream gauges, 5 snow sampling sites, real-time meteorological data, and ice conditions monitored to determine flood risk.

31 flood events in 2020 resulting in **69** bulletins being issued.

WATER CONDITIONS STATEMENTS

SHORELINE CONDITIONS STATEMENT

38
FLOOD
WATCH
BULLETINS

FLOOD WARNING BULLETINS

Erosion Control Projects

\$55,411 secured through provincial Water & Erosion Control Infrastructure (WECI) fund to support shoreline protection projects in the City of Sarnia.

Shoreline protection projects in 2020 focused on the Lake Huron shoreline in Brights Grove and along the St. Clair River shoreline in the community of Courtright. These projects were funded by the federal Disaster Mitigation and Adaptation Fund, the City of Sarnia, and the Township of St. Clair.



Groundwater Monitoring

9 wells monitored for water levels.

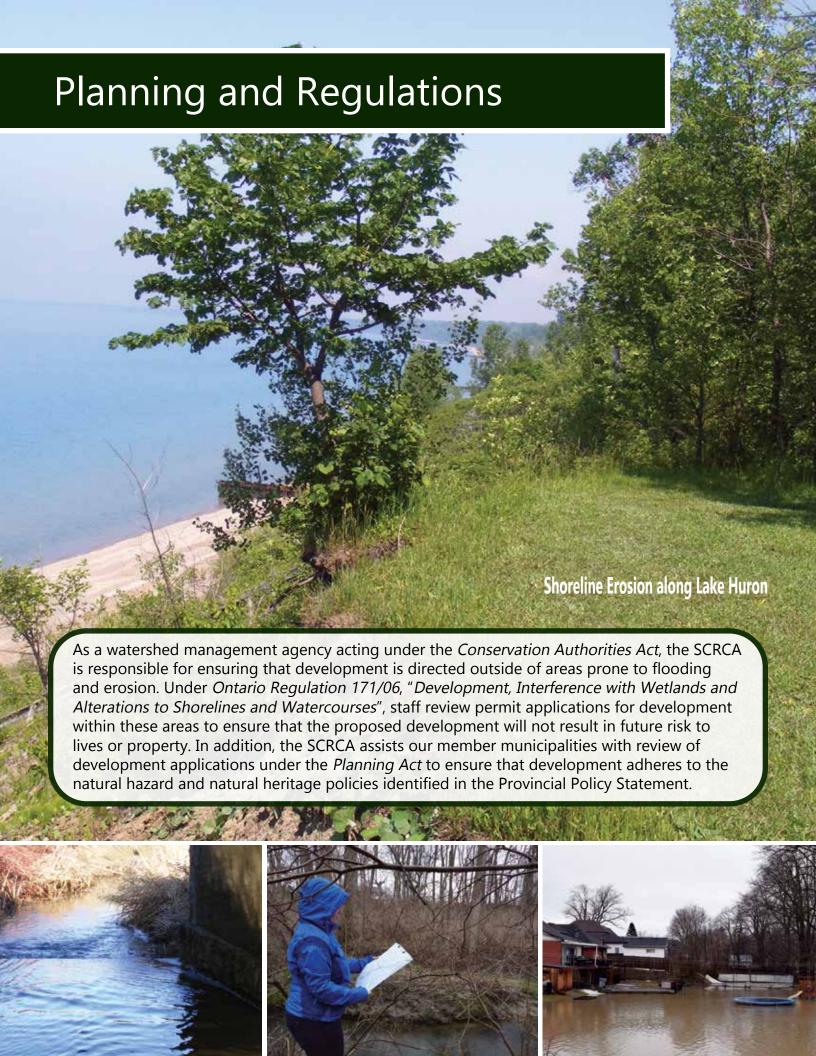
8 wells monitored for water quality.

Drinking Water Source Protection

Residents living in the SCRCA watershed are protected from significant drinking water threats through the administration of the Thames-Sydenham and Region Source Water Protection Plan. The SCRCA houses a Risk Management Official/Inspector who works with local communities to ensure risks to drinking water are mitigated. All initially assessed existing threats identified in 2016 have been addressed with

on-going inspections and assessments occurring regularly.

The W. Darcy McKeough Floodway is the largest flood diversion project in Ontario. When operated, it helps reduce the threat of flooding in the Town of Wallaceburg by diverting the North Branch of the Sydenham River towards the St. Clair River. Extreme rain events and strong winds led to the dam being operated twice in 2020 — once on January 13th and again on March 29th, 2020.



Planning Activity 2020

Inquiries	118
Active Files	145
Application Types (Note: Active files may have multiple applications)	242
Minor Variances Severances Site Plan Subdivision/Condominium Zoning By-law Official Plan	18 57 20 42 65 40
Files with Natural Heritage	34%

Regulations Activity 2020

Legal Inquiries	41
Permits Issued under Ontario Regulation 171/06	182
Inquiries under Ontario Regulation 171/06	388
Compliance/Enforcement Matters under Ontario Regulation 171/06	118
Hearings	0

Drainage Act and Section 28 Regulations Team (DART) Protocol Activity 2020

Total Drainage Projects Reviewed	159
Standard Compliance Requirements (SCRs) Issued	102

Erosion is a natural process that impacts the shorelines of all the Great Lakes. Recent record high water levels for Lake Huron has led to significant impacts to both private and municipally-owned reaches of shoreline, resulting in the need for repair or installation of new shoreline protection structures. The SCRCA issues permits for shoreline protection to ensure that works are properly designed and structurally sound, can withstand coastal processes, and do not result in flooding or erosion on properties upstream or downstream. The SCRCA recognizes that landowners may need to complete interim emergency works to temporarily stabilize the shoreline to protect their property while proper coastal engineering and permit review is undertaken. Landowners requiring emergency stabilization on their property should contact the SCRCA to acquire emergency work authorization prior to construction.



Water Quality Monitoring

10 water quality samples collected in 2020 and analyzed for nutrients, *Escherichia coli* (*E. coli*), and metals. Provincial water quality lab closures due to COVID-19 significantly impacted SCRCA sample collection.

14 benthic invertebrate monitoring stations throughout the watershed.

Fish Monitoring

83 of the **160** native freshwater species in Ontario are found in the Sydenham River.

8,476 fish detected from **19** sites in 2020 including:

45 different fish species

2 invasive species

3 species at risk

Snake Monitoring

53 hatched snake eggs recorded, in total, from the monitoring of 10 artificial nesting structures for signs of successful reproduction.

The 2020 fish monitoring program focussed on the detection of the invasive Round Goby (pictured right).

Round Goby was found at nine of the ten sites along the Sydenham River. This aggressive invader has spread rapidly from Lake St. Clair to the Head Street Dam in Strathroy. These records will help map the changes in the distribution and range of these non-native fish and assist in prioritizing actions to conserve native fish populations in the St. Clair Region and beyond.

Turtle Head-Starting Program



682 turtle eggs successfully rescued, incubated, hatched, and released, including:

438 Spiny Softshell Turtles

244 Common Snapping Turtles

Mussel Monitoring

1,689 live mussels recorded along a 4 km stretch of the Sydenham River, including:

8 different species at risk

Eighty-nine mussels collected in 2020 were identified as a species at risk including the globally threatened Northern Riffleshell (pictured right), Salamander Mussel, Snuffbox, and Rayed Bean.



Stewardship and Forestry









Environmental Stewardship

\$310,169 in grant funding secured to support 78 projects (April 2019 - December 2020).



10 wetland projects (6 hectares)

1 erosion control project

2 livestock fencing projects

1 grassed waterway

4 tallgrass prairie projects (12.5 hectares)

Tree Planting

50,340 seedlings planted on 28 individual properties (26 hectares) by SCRCA planting crews.

6,120 seedlings and **620** large stock trees supplied to local landowners and two municipalities.

Over **2,500** litres of seed collected from native tree species including oak, hickory, walnut, and maple.

Every fall, SCRCA staff collect seed from native trees throughout the watershed. The seeds grow into trees that will be used in future afforestation projects in our region and ensure the trees produced are genetically adapted to our local growing conditions.

Woodlot Management Services

Managed Forest Tax Incentive Program (MFTIP):

3 new plans, managing **63** hectares of forest

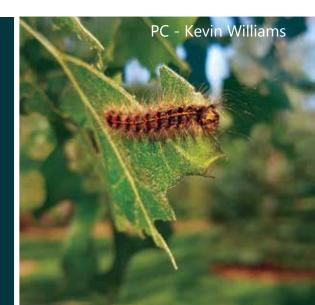
1 renewed plan, managing 19 hectares of forest

Woodlands Conservation Bylaw

Administered by the St. Clair Region Conservation Authority on behalf of the County of Lambton since 2011.

Gypsy moths are invasive insects that arrived in Ontario from Asia and Europe. During the larval life stage, gypsy moth caterpillars feed on the foliage of trees. During periods of high infestations, the caterpillars can severely defoliate host trees which can threaten tree health and increase vulnerability to future infestations. In 2020, large gypsy moth infestations were observed in Lambton Shores, Sarnia, Plympton-Wyoming, and throughout the Lambton Heritage Forest and Pinery Provincial Park. In cooperation with Lambton County, the SCRCA has supported community education efforts to help residents recognize and remove egg masses, collect and dispose of live caterpillars, and become informed on treatment options.





Conservation Areas



Research has shown that spending time in nature has many positive impacts on both mental and physical health. The SCRCA owns and maintains properties throughout the watershed that provide numerous recreational opportunities including hiking, camping, fishing, and bird watching. Our team maintains and continuously strives to improve these areas for the enjoyment of our visitors.

In light of the COVID-19 pandemic, several measures were implemented to ensure the health and safety of our guests and staff including cancelled campground events, limited amenities, enhanced cleaning and sanitizing, and reduced transient campsite availability. SCRCA staff organized safe and family-friendly activities to engage our visitors during the 2020 season including photo contests, scavenger hunts, and a family fishing derby.

Conservation Lands

15 Conservation Areas covering **620** hectares.

Manage **7** natural areas for Lambton County.

Over **40** kilometers of hiking trails.

Campgrounds

3 regional campgrounds with over **500** sites.

420 seasonal campsites.

\$929,000 gross revenue in 2020.

In 2020, the Sydenham Field Naturalists held two volunteer events to remove invasive Phragmites from Peers Wetland. Funding support provided by Enbridge allowed for the purchase of hip waders and cane cutters, among other supplies. Thanks to the hard work and dedication of volunteers, approximately 75 m² of the wetland was cleared of Phragmites.

Special Projects

Healthy Lake Huron

To improve water quality and promote clean beaches along the southeast shores of Lake Huron, the Healthy Lake Huron (HLH) program was launched in 2011. Since then, the SCRCA has partnered with all levels of government, local health units, other conservation authorities, and community groups to retain nutrients on the land and reduce the risk of harmful algal blooms between Sarnia and Tobermory. In 2020, the HLH team ran a social media campaign called #PieceofthePuzzle to connect Lake Huron communities with the lake and highlight



the role we play to keep Lake Huron healthy. Over 180 social media posts/tweets reached more than 85,000 people and highlighted the on-going efforts and future actions needed to maintain and improve water quality in this local Great Lake.

Sydenham River Watershed Phosphorus Management Plan

Through funding provided by Environment and Climate Change Canada, the SCRCA is coordinating the development of a phosphorus management plan for the Sydenham River watershed to reduce the loading of this nutrient to waterways, which contributes to degraded local water quality and algal blooms in Lake Erie. The objective of this program is to work with local stakeholders to identify sources of phosphorus, determine best-value solutions, and implement an outreach strategy. Meetings have been held with the Point Source and Non-Point Source Working Groups, Indigenous Engagement Committee, Advisory Committee, and Water Quality Technical Team since 2019. Feedback from these committees have directed on-going research and are being incorporated into the draft Management Plan.

St. Clair River Area of Concern

The St. Clair River was identified as an Area of Concern (AOC) in 1987 due to a lengthy history of urban and industrial development. For over 30 years, the local community, Indigenous Peoples, and government have been working together to improve the water quality and aquatic habitat of this water body and remove it from the list of Great Lakes AOCs. Continued action was guided through 2020 by the 2017-2022 Work Plan, which identifies the remaining remedial actions to address each Beneficial Use Impairment. The SCRCA continues to lead the project work to develop an engineering and design plan for managing contaminated sediment in three priority areas of the St. Clair River, with the field work component completed in 2020. Funding for this project is being provided by Environment and Climate Change Canada, the Ontario Ministry of the Environment, Conservation and Parks, and Dow Canada.

Lambton County Phragmites Partnership and West Nile Virus Control Program

Through funding provided by Lambton County, the SCRCA has assumed the coordinator role for the Lambton County Phragmites Partnership. The objective of this program is to increase local awareness of the threat of invasive Phragmites and support local organizations and municipalities in implementing eradication measures to reduce its spread. In addition, the SCRCA was contracted by Lambton County to treat catch basins in partnership with Lambton Public Health as part of their West Nile Virus Control Program. In 2020, 16,500 catch basins were treated three times with a larval growth regulator throughout the County and Aamjiwnaang First Nation to prevent mosquito larvae from developing into adult insects.



Education

The 2020 COVID-19 pandemic drastically altered the way educators were able to connect to their students. Spring school closures had teachers shifting to online platforms to reach their students and September restrictions resulted in cancelled field trips and limited access to school properties. Despite these challenges, the SCRCA education team eagerly created innovative and exciting new program opportunities to support teachers and keep students connected to nature. Their suite of virtual and school-yard programs were not only successful, but welcomed by educators, parents, and students throughout the watershed.

3,946 students participated in traditional conservation education programs between January and March 2020 prior to school closures due to COVID-19.

 $\bf 9$ Virtual Field Trips created that reached over $\bf 12,000$ students, teachers and parents.

3,168 students engaged through new fall program options including the "Nature in Your Neighbourhood" school-yard program, "Live-streaming with a Naturalist", and "Family Field Trips" to the Lorne C. Henderson Conservation Area.

Over \$83,000 in funding provided by 6 different organizations and government agencies to reduce or eliminate costs to schools and students and support education program upgrades.

Communications

Social Media 2020:

Facebook

1,763 Followers

1,704 Page Likes

259 Posts



Twitter

295 Tweets

227 Retweets

699 Followers

5,473 Engagements (clicks, retweets, replies, follows, and likes)

Media Relations:

19 media releases

497 news article mentions

In response to the spring school closures caused by the COVID-19 pandemic, the SCRCA education team focused on virtually recreating their conservation education field trips to keep students connected to nature and support teachers as they transitioned to online learning. The "Virtual Field Trips" covered a range of grade-specific, curriculum-connected environmental concepts such as biodiversity and wetland ecosystems and were accessed by teachers, parents, and students throughout Ontario, across Canada, and by educators teaching abroad.



GIS and IT



Our Geographic Information System (GIS) and Information Technology (IT) experts provide essential support services to all SCRCA departments and programs. In addition to maintaining important technological infrastructure (i.e., computers, servers), our GIS and IT staff create, update, and manipulate geographic data into a form that other departments and programs can easily comprehend and utilize. Our GIS/IT staff also researches and investigates new and exciting technologies to improve efficiencies within the Authority.

2020 Highlights

- Updated riparian and natural heritage analysis and mapping for the St. Clair River Area of Concern.
- Provided mapping and data support to the Sydenham River Watershed Phosphorus Management plan that is currently under development.
- Arranged Virtual Private Networks (VPN) and remote access to enable staff to work remotely during the COVID-19 pandemic.
- Provided mapping and GPS survey assistance to support the development of new floodplain mapping and mussel monitoring transect delineation.
- Successfully implemented Microsoft Teams to allow staff to communicate and collaborate on projects efficiently while working away from the office.

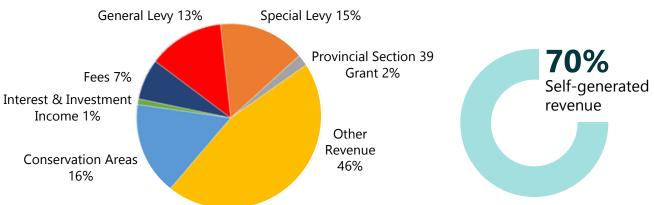
The SCRCA GIS team analyzes data and creates maps and other products that help staff prioritize stewardship and rehabilitation efforts to improve habitat and water quality health. A riparian analysis (pictured left) was completed in support of the St. Clair River Area of Concern program in 2020. The analysis identified the status of riparian vegetation within 5 metres and 30 metres of watercourses draining into the St. Clair River. The project also quantified the length of each watercourse that had riparian vegetation on one side, both sides, or no riparian vegetation at all.

Administration

The administration and finance team at the St. Clair Region Conservation Authority plays an integral role in fostering a positive and safe workplace for all Authority employees and managing the Authority budget. Our team continuously updates and improves SCRCA policies to achieve business excellence and sustainability while maintaining a positive corporate atmosphere.







Over **\$1.7 million** in funding provided to the SCRCA by 21 organizations and government agencies (2020-2021 fiscal year).

\$4.30 per \$100K of Assessment Value

Municipal Levy

Each year, SCRCA staff actively seek additional funding opportunities and sources of revenue to support conservation in our region thereby reducing costs to our member municipalities. As a result, the SCRCA holds the lowest municipal levy as a percentage of budget in Ontario (13%).

In 2020, our programs and services cost \$7.21 per person in the SCRCA watershed.



*unaudited

Conservation Foundation

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 that support several initiatives including conservation education; tree planting; the protection of wetlands, soils and forests; and upgrades to conservation area facilities and amenities.



Authority Support

Over \$75,500 provided by the Foundation to support 2020 Conservation Authority programs.

Foundation Lands

17 properties totalling 461 hectares.

Conservation Scholarships

3 scholarships presented to graduating high school students pursuing post-secondary studies in a conservation-related field.

A.W. Campbell Memorial Scholarship - \$1,000 awardBrady Grubb, Lambton Kent Composite School

Tony Stranak Conservation Scholarship - \$500 award Trevor McBrayne, Lambton Kent Composite School

Mary Jo Arnold Conservation Scholarship - \$500 award Gracie Goodhill, North Lambton Secondary School



Memorial Forest Programs

79 trees planted at 13 different locations through the Foundation's Memorial Forest Program.



For over 20 years, the Foundation has partnered with Denning's Funeral Home to establish the Denning's Memorial Forest Program. Through this program, Denning's makes donations on behalf of families they serve which support tree planting efforts and conservation education. In 2020, a donation of \$16,110 was made to the Foundation to support these programs.

Our Staff

Administration Office

Kandyce Affleck, Conservation Lands Clerk (Nov - Dec)

Laura Biancolin, Planner (Jul - Dec)

Donna Blue, Manager of Communications

Erin Carroll, Director of Biology

Brooke Ciuman, Drainage Clerk (Sept - Dec)

Stephen Clark, Risk Management Official/Inspector

Brett Conners, COOP Student, Water Quality (Feb - Apr)

Dallas Cundick, Manager of Planning (Jan - Feb)

Emily De Cloet, Water Resources Specialist

Melissa Deisley, Regulations Coordinator

Nicole Drumm, Special Projects Technician

Chris Durand, Manager of IT/GIS

Ashley Fletcher, Administrative Assistant/Board Coordinator

Jordan Fuller, Planning and Regulations Data Integrity

Technician (Oct - Dec)

Michelle Gallant, Regulations Officer (Jan - Aug)

Justin Greenside, Field Service Technician

Nicholas Hagerty, Survey Technician (Jan - Aug)

Sarah Hodgkiss, Planning Ecologist

Sarah Hume, Payroll and Accounting Clerk

Anastassia Lagounova, Stewardship Outreach Technician

(Jan - Mar)

Brian McDougall, General Manager

Mike Moroney, Project Manager

Erica Ogden, Planner (Jan - Mar)

Craig Paterson, Watershed Monitoring

Tim Payne, Manager of Forestry

Natasha Pozega, St. Clair River RAP Coordinator (Sept - Dec)

Tracy Prince, Director of Finance

Girish Sankar, Director of Water Resources

Cassie Sauer, Planning and Regulations Clerk (Sept - Dec)

Alison Seidler, GIS Specialist

Jeff Sharp, Conservation Services Specialist

Steve Shaw, Manager of Conservation Services

Kelli Smith, Watershed Biologist

Sam Sommerville, Conservation Services Technician (May), Fish and Wildlife Technician (Jun - Dec) Celia Terry, GIS Data Migration Technician (Oct - Dec) Jessica Van Zwol, Healthy Watershed Specialist Janice Vegh, Planning and Regulations Document Archivist

(Oct - Dec) Jeff Vlasman, Regulations Officer (Sept - Dec)

Meagan Weber, Planning and Regulations Clerk Greg Wilcox, Manager of Conservation Areas

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

Myra Spiller, Conservation Education/Community Partnership Technician (Nov - Dec)

Warwick Conservation Area

Glenn Baxter, Superintendent Jessy VanderVaart, Assistant Superintendent

McLean Conservation Lands

Scott O'Brien, Superintendent

Staff Retirements

Michelle Gallant, Regulations Officer at the SCRCA, retired in August after two years with the Authority. Sharon Nethercott, Conservation Education Coordinator, retired in December after an amazing 33 year career. We wish Michelle and Sharon all the best in their next chapters.



Sharon Nethercott 33 Years with SCRCA



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