



2018-2019 BIENNIAL REPORT

**SAULT STE. MARIE REGION
CONSERVATION AUTHORITY**







The Sault Ste. Marie Region Conservation Authority was established in 1963 by our member municipalities. Our watershed encompasses a 552 square kilometre area which includes the St. Marys River watershed and a number of smaller watersheds draining the northern shore of Lake Superior.

**SAULT STE. MARIE REGION
CONSERVATION AUTHORITY**

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The Sault Ste. Marie Region Conservation Authority is one of 36 Conservation Authorities across Ontario.



+ CONTENT

- 06 Message from the Chair and General Manager**
- 07 Board of Directors**
- 08 We Have 50+ Years of Experience**
- 09 Core Programs**
- 10 Water Management**
- 12 Planning & Permits**
- 14 Operations & Maintenance**
- 16 Source Water Protection**
- 18 Water Monitoring Program**
- 20 Natural Spaces—Explore the Outdoors**
- 22 Education Reimagined**
- 24 Community Partnerships**
- 26 Budget Summary**

MESSAGE FROM THE CHAIR AND GENERAL MANAGER

On behalf of the Board of Directors and staff of the Sault Ste. Marie Region Conservation Authority (SSMRCA) we are pleased to present our 2018-2019 Biennial Report. This report outlines the works undertaken at the SSMRCA.

The SSMRCA developed and adopted a new Administrative By-law in 2018 as required by an amendment to the Conservation Authorities Act, Bill 139 the Building Better Communities and Conserving Watersheds Act. The new by-law improves SSMRCA governance by clearly defining the roles and responsibilities of Board members and the General Manager.

On World Water Day March 22, 2018, the SSMRCA debuted the first Watershed Report Card for the Sault Ste. Marie Region. Watershed Report Cards involve a five-year reporting period which provide a "CHECK UP" on the overall state of a watershed. Conservation Authorities across Ontario have prepared similar reports using a standardized grading system to report on: Groundwater Quality, Surface Water Quality and Forest Conditions with a set of indicators for each category.

Two important Memorandum of Understanding agreements were signed in 2018 and 2019 with Algoma University and Sault College. Both agreements formalized the use of our conservation areas for research and educational activities that take place year-round. Information received from the studies and projects will add to the local science knowledge of our area and could assist with future decision making and planning.

The 2018-2019 Field Operations activities included vegetation removal in the Bennett-West

Davignon Channel, vegetation and sediment removal in the East Davignon Channel, as well as culvert repair, vegetation and sediment removal at the Clark Creek Channel. A large erosion repair project was also completed on the northern section of the West Davignon channel.

The Children's Source Water Festival was reimagined and renamed the Children's Environmental Education (CEE) program. The new platform offered an in-school visit to elementary classrooms from the ADSB and HSCDSB around the city during the 2018-2019 school year.

As one of Canada's 40 Heritage Rivers, the St. Marys River was part of a story map project in 2018. Funding for the project was received by the SSMRCA as a participating River Manager. Each story map displays a river's natural, cultural, and recreational values with text, photos, videos and external links.

There was a significant change in staff in 2018-2019. A nearly 50% reduction in provincial funding resulted in the decrease of our staff capacity from eight full time positions down to five. Two of the former full-time staff transitioned to part-time/seasonal.

2019 saw General Manager (GM) Rhonda Bateman depart the SSMRCA for the Lower Trent Conservation Authority, and Corrina Barrett was selected as the new GM at the SSMRCA.

Corrina Barrett, General Manager
Marchy Bruni, SSMRCA Board Chair

BOARD OF DIRECTORS

2018

CITY OF SAULT STE. MARIE

Councillor Marchy Bruni, Chair
 Councillor Joe Krmpotich, Vice-Chair
 Councillor Judy Hupponen
 Citizen Appointee Ozzie Grandinetti

TOWNSHIP OF PRINCE

Councillor Enzo Palumbo

2019

CITY OF SAULT STE. MARIE

Councillor Marchy Bruni, Chair
 Councillor Donna Hilsinger
 Councillor Corey Gardi
 Councillor Rick Niro

TOWNSHIP OF PRINCE

Councillor Enzo Palumbo, Vice Chair



Our Board at a glance

Locally the SSMRCA operates under the direction of a Conservation Authority Board which is currently comprised of five municipal representatives, four from the City of Sault Ste. Marie and one from Prince Township. Collectively, Board Members provide direction and lead the Conservation Authority

Each year at the Annual General Meeting, the Board membership elects a Chair and Vice-Chair to serve for the coming year.

Board Members are responsible for taking an active role in guiding the activities of the SSMRCA. Municipal representatives keep their local municipal councils apprised of the programs and projects of the Authority and act as the liaison between the Conservation Authority and the municipality. Each board member is entitled to one vote.

Ideally, the Board Members represent the interest of all people served by the Authority. They are aware of conflicts of interest, they honour confidentiality, approach all Board issues with an open mind, are prepared to make the best decision for the whole organization, live up to the trust of those who appointed them or those they serve, and focus their efforts on the vision, mission, goals and objectives of the Conservation Authority.

WE HAVE 50+ YEARS OF EXPERIENCE

HEALTHY WATERSHEDS, HEALTHY COMMUNITIES SAFEGUARDING OUR WATERSHED

Located in Northeastern Ontario, the Sault Ste. Marie Region Conservation Authority (SSMRCA) is one of Ontario's 36 conservation authorities, with over 50 years of experience in integrated watershed management.

OUR STORY SO FAR

In the 1930's, growing concern about deforestation and urban development were causing flooding, soil erosion, degraded water quality and destruction of fisheries. These widespread environmental problems led to the passage of the Conservation Authorities Act in 1946. The Act allowed for the creation of a new kind of agency one based on watersheds.

The purpose of this Act is to provide for the organization and delivery of programs and services that further the conservation, restoration, development and management of natural resources in watersheds in Ontario.

Of primary importance are the programs and services related to the protection of people and property from the dangers natural hazards associated with flooding, erosion, dynamic beaches, slopes, unstable soils, and wetlands.

In 1963, the Sault Ste. Marie Region Conservation Authority was established by the City of Sault Ste. Marie, Korah Township, Tarentorus Township and Prince Township. Our programs strive to balance human, environmental and economic needs of our watershed.

Core programs



Water Risk Management

Flooding is the leading cause of public emergency in Ontario. Conservation Authorities are the first line of defence in preventing and reducing the impacts of flooding.



Flood Warning

The SSMRCA monitors weather and flood conditions and issues flood messages to municipal emergency management officials and the media for public safety.



Permits and Planning

The SSMRCA is an approval authority for development on hazard lands affected by flooding, slopes and in environmentally sensitive areas like wetlands, shorelines and watercourses.



Water Management

Flood risk, mitigation and management is the foundation of our business. The SSMRCA owns, operates and maintains five Flood Control Channels, one Dam and Reservoir.



Source Water Protection

The Source Water Protection program was developed through the Clean Water Act, 2006 to protect municipal drinking water sources locally for Sault Ste. Marie.



Ontario Regulation 176/06

The SSMRCA regulates planning and development within the floodplain and other identified "hazardous lands". We provide landowners and agents with the knowledge to make informed building decisions that protect people and property from flooding and erosion.

You may require a permit if...

Typical activities that may be regulated include, but are not limited to:

- Construction, modification or reconstruction of a building or structure;
- Breakwalls, groynes, gabions, docks, dredging;
- Stairs, decks, gazebos;
- In-ground and above-ground pools;
- Temporary or permanent placement of fill, grading.

WATER MANAGEMENT



Protecting People & Property

Floods have always been part of nature. They can happen just about anywhere, at any time.

The impacts of flooding can be severe. Loss of life, property devastation, long-term social, emotional and economic disruption emphasize the need for effective flood and erosion management on a watershed basis.

Our staff work daily to monitor and identify potential flood risks. A network of stream

gauges, precipitation stations, meteorological data, reports from the surface water monitoring centre, and snow surveys are used to observe and model local flooding potential.

In the event of possible flooding, we issue Watershed Condition Statements in varying levels to our municipalities, emergency response agencies and local media.

AN ESSENTIAL RESPONSIBILITY

FLOOD FORECASTING & FLOOD WARNING

For up-to-date flood information, watershed residents and businesses can visit the SSMRCA website at www.ssmrca.ca, or connect with us on Twitter and Facebook.



**SAULT STE. MARIE REGION
CONSERVATION AUTHORITY**

Current Watershed Conditions



During 2018-2019 we issued 23 Flood Messages to our residents and municipalities:

Water Safety Statements

6

Indicates that high flows, unsafe banks, melting ice or other factors could be dangerous to people and pets. Flooding is not expected.

Flood Outlook Statements

12

Early notice of the potential for flooding based on heavy rain, snow melt, high wind or other conditions.

Flood Watch Statements

3

Flooding is possible in specific watercourses or municipalities. Municipalities, emergency services and individual landowners in flood-prone areas should prepare.

Flood Warning Statements

2

Flooding is imminent or occurring. A flood warning is a notice that flooding is imminent or occurring within specific watercourses and municipalities. They may be updated depending upon such things as: temperatures, precipitation and runoff conditions.

PLANNING & PERMITS BY THE NUMBERS

We administer Ontario Regulation 176/06 to regulate development and activities in specific areas to reduce the threat of loss of life and property damage from natural hazards such as erosion and to minimize the potential of flooding.



If a property is located in a regulated area such as a river or stream valley, Lake Superior or St. Marys River shoreline, near watercourses, or wetlands a permit may be required from the SSMRCA for development, construction, filling, excavation, shoreline alterations and interference with wetlands.

**189****Permits Approved****0****Permits Denied****74****Complaints Investigated****PERMIT SUMMARY****413****Responses to Solicitor Requests****152****Site Plans Reviewed****996****Maps Produced****PLANNING SUMMARY****40****Zoning Requests****147****Committee of Adjustment Comments****162****Other Planning Comments Provided in 2018-2019**

With over 50 years of experience in watershed-based resource management, our mandate includes a variety of roles in land use planning and development. Our responsibilities include ensuring development is not at risk from natural hazards such as flooding or erosion while balancing the human, environmental and economic needs of our community.

OPERATIONS & MAINTENANCE

PREVENTING AND REDUCING FLOODING

Flooding is the leading cause of public emergency in Ontario. Conservation Authorities are the first line of defence in preventing and reducing the impacts of flooding.

Protecting Lives and Properties

Operating one dam and five flood control channels

Our flood control structures include the Fort Creek dam, reservoir and Clark Creek, East Davignon channel, Central Creek and the Bennett West Davignon channels. These channels are responsible for conducting water flows from rainfalls and snowmelt away from neighbourhoods safely to the St. Marys River.

These flood control channels protect lives and properties in areas throughout the City of Sault Ste. Marie that would have experienced flooding decades ago. This protection covers residential, commercial and industrial properties.

Our maintenance program involves year-round monitoring of streamflow levels and flows. To maintain water levels in the flood control channels, debris removal is essential to allow the water to flow freely without obstruction.

Natural debris such as woody vegetation and silt can cause decreased flows. Unnatural or man-made debris such as tires, bikes and mattresses are frequently found in the channels. Dumping in the channels is illegal and puts lives at risk.





“Our Flood Control Structures are responsible for directing water flows away from residential, commercial and industrial properties safely to the St. Marys River.”

Grass cutting occurs throughout the summer to discourage woody growth and to allow access to the channels. This results in pedestrian trails along the channels that are used by many residents of Sault Ste. Marie.

A large portion of our maintenance includes the removal of large vegetative growth within our channels. The SSMRCA has prioritized its channels for large vegetative removals. In 2016 our focus was on the Fort Creek channel and dam. In 2017 the work was focused on the West Davignon

Channel above Wallace Terrace to below Allen's Side Road.

This maintenance included remediation of the streambed to allow natural flows into the small dam structure that feeds the Bennett Creek at Brookfield.

SOURCE WATER PROTECTION

WATER IS LIFE. PROTECT YOURS.

The Drinking Water Source Protection program at the SSMRCA has been successful in fulfilling its mandate under the Clean Water Act, 2006 (CWA) to develop a Source Protection Plan to protect municipal drinking water sources for the City of Sault Ste. Marie.



The implementation of the majority of the Source Protection Plan is the responsibility of the City of Sault Ste. Marie through the Risk Management Office. The office includes a Risk Management Official, located in the Civic Centre and a Risk Management Inspector housed at the SSMRCA.

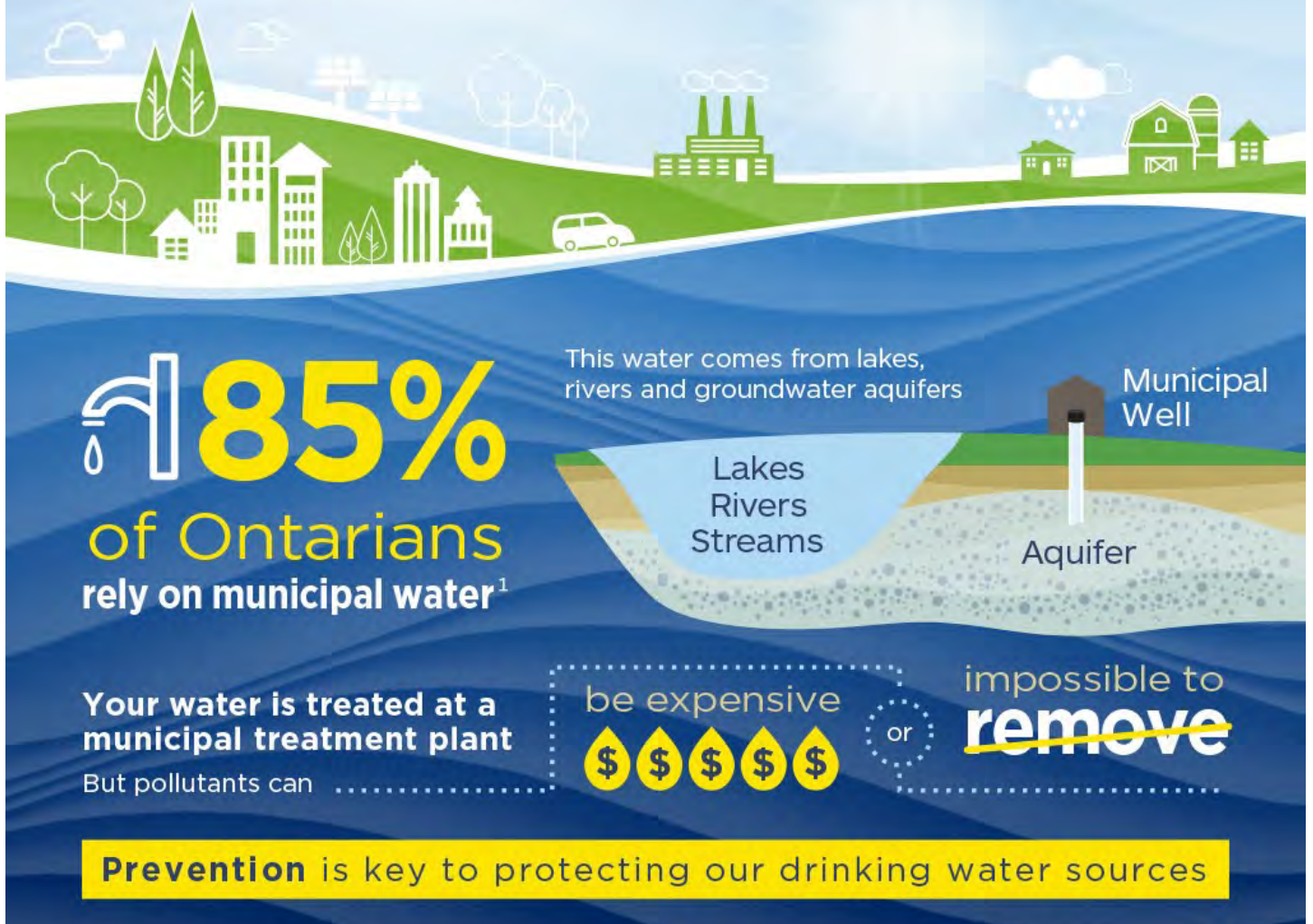
The Source Protection Committee, which oversaw the development of the Source Protection Plan, held three meetings in 2018. The meetings focused on the requirement under Section 36 of the CWA to develop a workplan to review the current Plan and outline potential changes. The workplan was submitted to the Ministry of Environment, Conservation and Parks in November. In 2019 three meetings were held to orient three new committee members and new

committee chair. These meetings focused on discussion of changes to the Source Protection Plan as identified in the approved workplan that was submitted in November 2018.

The Source Protection Plan developed for the Sault Ste. Marie Region Source Protection Area specifically applies to municipal residential drinking water sources such as groundwater wells (Well Head Protection Areas) and surface water intakes (Intake Protection Zones). The full text of the current approved Source Protection Plan is available at: ssmrca.ca/source-water-protection/resources/reports

In the Know About H₂O

Protecting municipal drinking water at its source



Drinking Water Source Protection is the first step in a multi-barrier approach to protecting the sources of drinking water before they become contaminated. The focus of Source Protection is on prevention. Preventing contamination is a much more effective and proactive way of ensuring clean drinking water and in turn avoiding serious health issues.

The local Source Protection Committee with guidance from the Ministry of the Environment, Conservation and Parks developed the Sault Ste. Marie Region Source Protection Plan.

WATER MONITORING PROGRAM

QUALITY AND QUANTITY



PROVINCIAL WATER QUALITY MONITORING NETWORK

During May through to October each year the Sault Ste. Marie Region Conservation Authority takes water samples at five designated locations on a monthly basis as part of the Provincial Surface Water Quality Monitoring Network (PWQMN).

The surface water chemistry is monitored for a standard set of water quality indicators which

include: trace metals and other general chemistry parameters. Other quality related data types are measured in the field, such as temperature, conductivity and dissolved oxygen. Samples are also sent to the Ministry of the Environment, Conservation and Parks or private laboratories for things such as nitrates, phosphorous and E. coli. The resulting information assists in

determining long-term surface water quality trends. It is also used in detecting water quality impairments and evaluating conservation efforts.

PWQMN information is one of the main sources of surface water information that is required in Source Water Protection Planning.



PROVINCIAL GROUNDWATER MONITORING NETWORK

The Sault Ste. Marie Region Conservation Authority in partnership with the Ministry of the Environment, Conservation and Parks maintains twelve Provincial Groundwater Monitoring Network wells in the local watershed. The wells record water levels on an automated hourly basis with monitoring equipment that provides valuable information.

Since 2005, water samples have been collected and analysed for water chemistry parameters.

Data from these wells is also being used to make decisions about Permits To-Take Water, Source Water Protection Planning and Climate Change Impacts. The data is also used as a low water response indicator for drought. Results from water quality sampling are used by Public Health Units about parameters that may exceed Ontario Drinking Water Standards in an aquifer within their jurisdiction.



NATURAL SPACES

EXPLORE THE OUTDOORS



Hiawatha Highlands Conservation Area

Forested areas like Hiawatha Highlands help to moderate temperatures and mitigate the effects of climate change, they act as erosion protection and prevention and provide essential wildlife habitat, shade, and wind reduction, and enrich forestry biodiversity.

Fort Creek Conservation Area

Known as a park land area in the middle of our city, Fort Creek offers residents increased protection from the flooding of the past. Home to a earthen Dam and water reservoir, this area diverts flood waters away from residential and commercial properties and channels it safely into the St. Marys River.

Marks Bay Conservation Area

The St. Marys River is an important staging area and corridor for birds migrating to and from their breeding and wintering areas.

Mark's Bay is also home to a rare species of plant, known as the skunk cabbage. This remarkable plant is usually the first to bloom in the spring.

Step Into Nature

CONSERVATION AREAS PLAY AN IMPORTANT ENVIRONMENTAL, SOCIAL, EDUCATIONAL, RECREATIONAL AND ECONOMIC ROLE IN OUR COMMUNITY.



4,216 acres of recreational area

Providing areas for healthy, active lifestyles such as hiking, regular and off-road cycling, skiing, snowshoeing, canoeing, picnicking, geocaching, and dog walking. The possibilities are endless. We challenge you to unplug, and recharge by spending time in nature.



3,675 acres of forested areas

To ensure the diversity of the forested areas is maintained for future generations, the SSMRCA has an approved Managed Forest Plan. The plan is an ecosystem-based approach that guides forestry activities, forest management, wildlife habitat, recreation and education.



1,594 acres of wetlands

Wetlands contain wild fisheries that provide food for waterfowl, shorebirds and raptors, they also store flood water, improve water quality, and recharge groundwater supplies for drinking water.

Shore Ridges Conservation Area

Having the capacity to store flood waters during rain events and spring melt, wetlands have the ability to hold back flood waters and slowing release them reducing the severity of flooding and erosion.

Did you know that the Shore Ridges Conservation Area contains a designated provincially significant wetland (PSW).

Gros Cap Conservation Area

Located off Marshall Drive in Prince Township, Gros Cap conservation area is used by locals for accessing the Voyageur Trail. This conservation area is considered backcountry with a wide variety of vegetation and mixed forest.

DID YOU KNOW?

**Being in nature
calms your mind and
reduces stress.**

#HealthyHikes

EDUCATION REIMAGINED

CEE

Children's Environmental Education



Beginning in 2018 the Children's Source Water Festival transitioned into a mobile education program that visited classrooms around Sault Ste. Marie.

The Children's Environmental Education program or CEE was made available to schools in both the Algoma District School Board and the Huron Superior Catholic

District School Board.

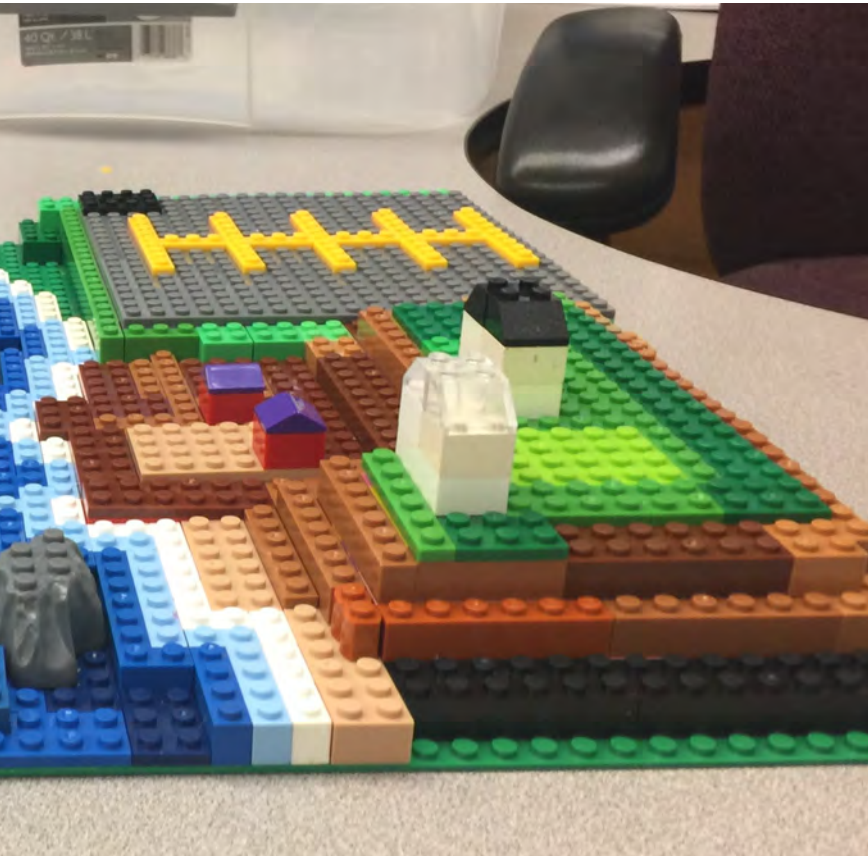
Several different program streams based on Ontario curriculum were offered. In total between September of 2018 and June of 2019, 24 classrooms were visited. Teachers from Grade 1 to 8 provided comments and evaluations that the program was an outstanding success.

All the Water in the World

71% of the earth is covered with water, but how much of that water can we use for drinking, cleaning or food production? The answer is ... 1%, which is not frozen in glacier, accessible, not salt water and is clean and safe to use.

One in Ten

Take your cup and shake it up. How many times will your city flood in ten years? That's what students were challenged to find out with this game. If flooding was left to chance how many times would they pick a flood out of a cup with nine other blanks.



Lego Flood Control

Students become the engineers to design and build flood control structures to control the flow of water all with just Legos.

- How do you slow down the water?
- Does the model work the way they want it to?
- How could it work better or differently?

Rolling Thru the Watershed

Donning velcro vests, students imagined themselves as water droplets rolling through the watershed. Seeing what gets stuck to water on its journey through the watershed. Students worked as detectives to find out where the different materials would be found in a real watershed.

Alien Invasion

It's an Invasion! Invasive Species are taking over the wetland. Students were challenged to find the classmate with the same native plant id card as yours before their card was taken by an Alien. The race is on to see who can survive.

COMMUNITY PARTNERSHIPS

ACADEMIA, SCIENCE AND RECREATION

The SSMRCA is fortunate to own lands that are environmentally diverse and can be used for education, research and practical application of natural resource management principles.

Together, with community partners the SSMRCA continues to support education, research and the advancement of conservation and sustainability in the local watershed.

The SSMRCA actively encourages partnerships with local post-secondary institutions. Students and teachers are encouraged to utilize our properties for teaching opportunities and research projects.

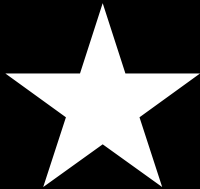
A Memorandum of Understanding (MOU) was signed with Algoma University in 2018 to allow further collaboration and research opportunities.

In 2019, Sault College and the Sault Ste. Marie Region Conservation Authority (SSMRCA) joined together to sign a MOU to support both student learning and collaboration opportunities between the two organizations.

The Invasive Species Centre partners with the SSMRCA for education, outreach, training opportunities and funding proposals and Algoma Public Health has been conducting passive tick surveillance surveys in the Hiawatha Highlands. The SSMRCA encourages science-based research in the St. Marys River watershed.

Other partnerships also exist with organizations and activity based user groups such as the Soo Finnish Nordic Ski Club, Sault Cycling Club and Sault Trailblazers. Signed agreements allow for access to and responsibility for trail maintenance for skiing, snow shoeing, biking and snowmobile trails.

THE ADVANTAGES OF COMMUNITY PARTNERSHIPS



LOCAL CHAMPIONS



INCREASED AUDIENCE AND STAKEHOLDERS



ADDITIONAL KNOWLEDGE BASE

01 Clarifying Our Role Within the Community

02 Expand Existing Collaborations

03 Bridging Gaps

04 Joint Leverage for Funding

05 Encourage Science-Based Research

06 Provide New Perspectives

There are many diverse activity-based user groups that utilize our conservation areas. The Sault Archer Club, Algoma Rod and Gun Club, Sault Naturalists and the Voyageur Trail Association are included, just to name a few. Scouts Canada and Girl Guides are frequent and welcome guests at conservation areas as well.

Partnering for events allows the SSMRCA to participate in activities that it might not otherwise

be able to due to cost or capacity issues. These collaborative events include conducting tree planting with volunteer groups through the TD Tree Days, the removal of terrestrial invasive species such as garlic mustard with the Invasive Species Centre, or clean-ups at conservation areas such as Fort Creek and Mark's Bay with Clean North.

BUDGET SUMMARY

REVENUES & EXPENSES

The Sault Ste. Marie Region Conservation Authority (SSMRCA) contributes to the local environment thanks to the funding support of our two member municipalities, Government Grants from the Ministry of Natural Resources and Forestry, Ministry of the Environment Conservation and Parks, and Self-Generated Revenue.

Municipal levies allow the SSMRCA to provide programs and services that promote watershed management, sustainability, and the protection of people and property.

The General Manager & Secretary-Treasurer, directs the administration and finances of the SSMRCA with the Board of Directors.

The complete audited financial reports are presented to the Board of Directors annually at an open public meeting.

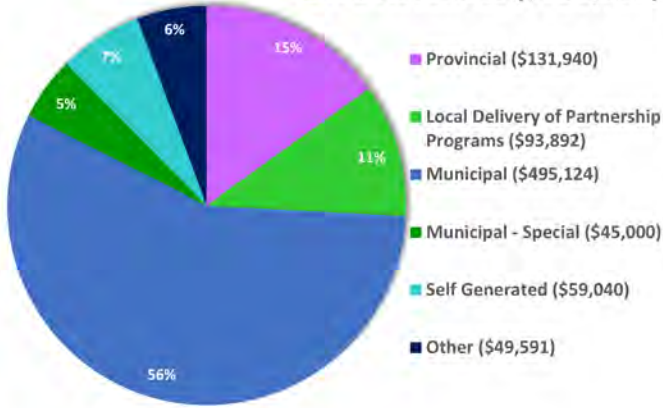
For every household in Sault Ste. Marie, your municipality contributes \$14.75 per year on average to the SSMRCA based on the 2016 census of 34,530 permanent households.

Provincial funding is limited to programs associated with flooding and source water protection planning.

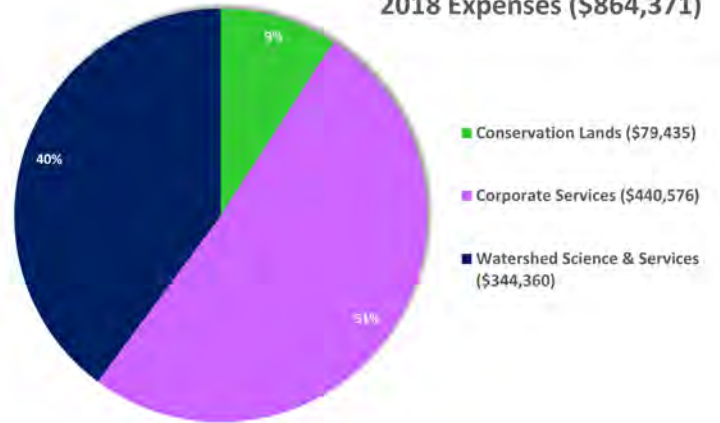
Self generated revenue includes: Conservation Area rentals for weddings, films, or photography; rental of event space; fees for services such as development permits; and Land Use Agreements with local sports groups that use Conservation property for skiing, snow shoeing, fat biking, archery and shooting ranges.

2018

2018 Revenues (\$858,709)

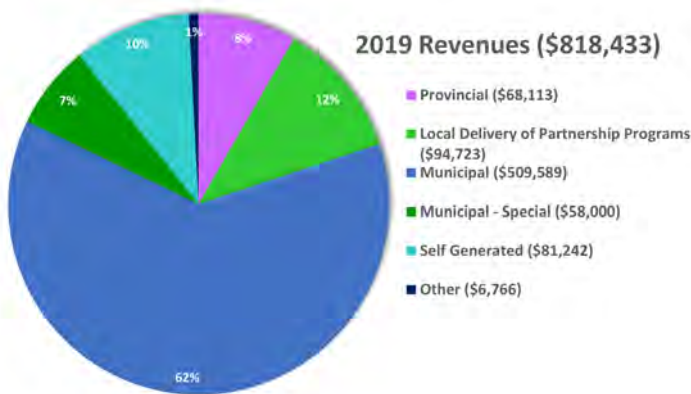


2018 Expenses (\$864,371)

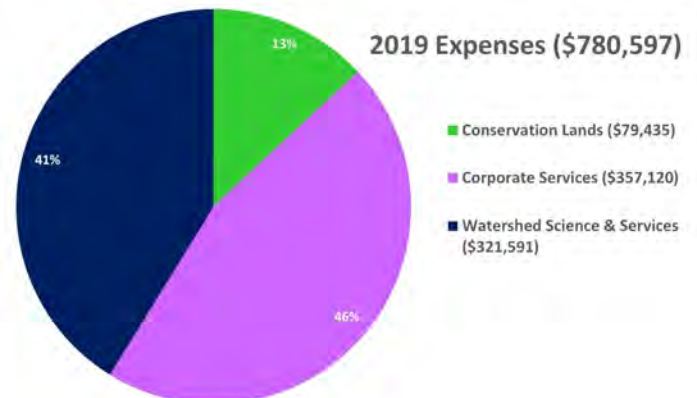


2019

2019 Revenues (\$818,433)



2019 Expenses (\$780,597)



* Full financial statements are available at ssmrca.ca