



---

## Severn Sound Environmental Association 2019 4<sup>th</sup> Quarter (Oct. 1 – Dec. 31) Report/Update

---

### Staffing/HR

*Administration, Staffing, Training and Volunteers*

#### Staffing

- THANK YOU to Cody Avery, Drinking Water Source Protection Assistant for all your hard work!

#### Volunteers

- Thank you to all of the volunteer citizen scientists on Farlain Lake that submitted water level observations and volunteers from across the watershed that submitted ice observations!

#### Training

- Property Entry, Risk Management Official/Risk Management Inspector refresh training (provided free from Ministry of Environment, Conservation and Parks)



*SSEA Board of Directors Meeting*

---

### Education, Engagement, Outreach

*Presentations, Articles, Media, School Involvement and Events*

#### Presentations

- 'SSEA 101' for Métis Nation of Ontario
- Township of Severn re: MacLean Lake Water Quality
- Township of Oro-Medonte re: Bass Lake Water Quality
- Georgian Bay Public Science Forum re: lower food web in Severn Sound
- Horseshoe Valley Ratepayers & Property Owners Association re: Severn Sound Watershed & Association Orientation
- Latonell Conservation Symposium, "Working With Farmers to Protect Municipal Drinking Water in Tiny Township, Severn Sound" and "Managing Invasive Species: Lessons from the Field"
- Simcoe & District Maple Syrup Producers Association- "Invasive Species Monitoring, Identification and Control"
- Source Protection Committee: "Prohibition of Commercial Fertilizer Application in the Lafontaine / Georgian Sands Area"



*Perfect weather on the last open water sampling run*

## Articles/Publications/News

- Interviews with: Midland Mirror on [Climate Change in Severn Sound](#)
- Contributed article to Simcoe.com on [TD FEF Grant for Shorewatch Program](#)

## Media

- @SSEA\_SSRAP Twitter activity for 3<sup>rd</sup> quarter: 41 tweets, 811 page visits, and 294 Followers
- Tweets Awards Reception highlights, invasive species, SSEA sampling activities, Drinking Water Source Protection, Tree Distribution program, and links to resources
- Web Site Activity: 2,032 users visited [www.severnsound.ca](http://www.severnsound.ca)
- “Did you know?” online video series, in collaboration with Southern Georgian Bay Chamber of Commerce
  - 10 SSEA informational videos uploaded, including [citizen science Ice Spotter Program](#), [movement of invasive species on firewood](#), and [holiday decorating using native species](#) posted to YouTube and Facebook, over 5,000 combined views



*Behind the scenes:  
“Did you know?” video series*

## Events/Meetings/Conferences

- Displays at: SSEA Partner Reception, Township of Georgian Bay Honeybee Festival
- Staff attended: SMDHU Climate Change Exchange 4th Quarter meeting, Huronia Community Foundation Giving for a Cause event, Global Lake Ecological Observatory Network conference, State of the Bay Science Workshop, Georgian College GIS Day, Dufferin Simcoe Land Stewardship Network meeting, Midland Technical Review Committee meeting, North Simcoe Volunteer Administrators network meeting, Municipal Septic Re-inspection Programs webinar, North Simcoe Soil & Crop Improvement Association AGM
- Agricultural roundtable discussion with Minister of Agriculture, Food and Rural Affairs PA MPP Pettapiece and Simcoe North MPP Dunlop
- Annual SSEA Partners Reception/Awards – November 7, Heights of Horseshoe
  - THANK YOU to event sponsors Mosey & Mosey, Fred Hook Ltd, and First for Safety, and to door prize donors Woodland Creations, Ego’s Farm Market and the Ontario Federation of Agriculture
- Climate Action Briefing to Township of Severn Mayor for meeting with Lieutenant Governor of Ontario



*Annual SSEA Partners Reception*

### School Involvement

- Contributed case studies for use in Applied Environmental Math course in Georgian College Environmental Technology Program

## Tree Planting

---

### *Planting and Distribution*

#### Community Tree Planting & Tree Seedling Distribution

- In planning stages for spring 2020
  - Conducting field visits and confirming sites for Community Tree Plant projects
  - Promotion of Tree Distribution program (with municipal assistance), seedling orders being accepted

## Fish and Wildlife Habitat / Natural Heritage

---

### *Natural Heritage Assessments, Invasive Species, Wetlands, Habitat and Stewardship*

#### Invasive Species

- Conducted an invasive species identification field tour and invasive species removal demonstrations for the Simcoe & District Maple Syrup Producers Association
- Recycled dried phragmites stems to create 'bee hotels' as an activity for participants of the Georgian Bay Honey Bee Festival
- Completed input and analysis of 2019 invasive species monitoring data and drafted municipal invasive species reports



*Bee hotel station at SSEA booth at the Honey Bee Festival*



*Field Tour: Spotting Invasive Gypsy Moths*

### Habitat and Stewardship

- Completion of a multi-year, multi-partner habitat rehabilitation project on Copeland Creek, including signage, removal of box culvert and stabilization of banks to restore natural channel profile and free-flowing conditions in Copeland Creek and protect trail infrastructure
  - Approximately \$177.36K project cost
  - Secured \$150.5K in grants from The W. Garfield Weston Foundation through Swim Drink Fish, Dufferin Simcoe Land Stewardship Network, and the Georgian Bay Métis Council/Bruce Power, in addition to \$26.86K plus in-kind contributions from Township of Tiny and in-kind contributions from RJ Burnside & Associates and the North Simcoe Anglers and Hunters Conservation Club



*Copeland Creek Project Cheque Presentation:  
Georgian Bay Métis Council/Bruce Power*

## Land Use Planning

---

### *Input and Review*

#### Plan Input

- Submitted comments to the Province regarding Provincial Policy Statement Review, and proposed amendments to the *Aggregate Resources Act*
- Commented on Environmental Registry posting on use of environmental penalty monies
- Provided feedback into Midland Development Charges Review
- Commented on 12 proposals, applications, reports or Environmental Impact Studies

## Drinking Water Source Protection

---

### *Drinking Water Source Protection, Risk Management Services*

#### Drinking Water Source Protection

- Attended 4 meetings/teleconferences
- Continued to support municipalities in updating Assessment Reports for new or changing water systems
- Commented on changes to the Directors Technical Rules
- Involved in Source Protection Committee member replacement, at a local municipal level and regionally for public and economic members

#### Risk Management

- Commented on 13 development applications, answered 5 inquiries, issued 4 *Clean Water Act* S.59 Notices to Proceed, attended 1 pre-consultation meeting, and conducted 23 site visits

## Monitoring Programs

*Field/data collection: Open Water, Inland Lakes, PGMN, PWQMN/Tributaries, Stream Temperature, Stream Invertebrates and Climate*

### Open Water

- Concluded water quality sampling (water temperature, dissolved oxygen, conductivity, nutrients, general water chemistry, metals, algae and zooplankton) at 14 sites in Severn Sound: 12 runs completed, plus additional sampling in Honey Harbour area
- Completed water quality sampling at the raw water intake at the Tay Area water intake

### Inland Lakes

- Concluded biweekly water quality sampling on Little Lake in Midland (12 runs completed), along with water level monitoring
- Concluded biweekly water quality sampling Lake Couchiching: 9 runs completed
- Water quality sampling parameters include: temperature, dissolved oxygen, conductivity, nutrients, general water chemistry, algae and zooplankton

### Provincial Water Quality Monitoring Network (PWQMN)

- 3 runs completed at 14 sampling locations in 8 streams (Lafontaine and Copeland Creeks; Wye, Sturgeon, Hogg, Coldwater, North and Severn Rivers), measured water temperature, dissolved oxygen, pH, turbidity, conductivity, water chemistry and metals

### Provincial Groundwater Monitoring Network (PGMN)

- Collected samples at 6 well sites
- Recorded water levels for all 10 well sites across the watershed

### Stream Temperature

- Interpretation of water temperature data is nearing completion

### Climate

- Compilation of monthly Georgian Bay water level and regional climate data
- Removal and data download complete for the 4 rain gauges recording precipitation at Huronia Airport, Midland Sewage Treatment Plant, Pine Grove (Penetanguishene) and Balm Beach
- Removal and data download complete for the 3 air temperature loggers at Huronia Airport and the Midland Sewage Treatment Plant



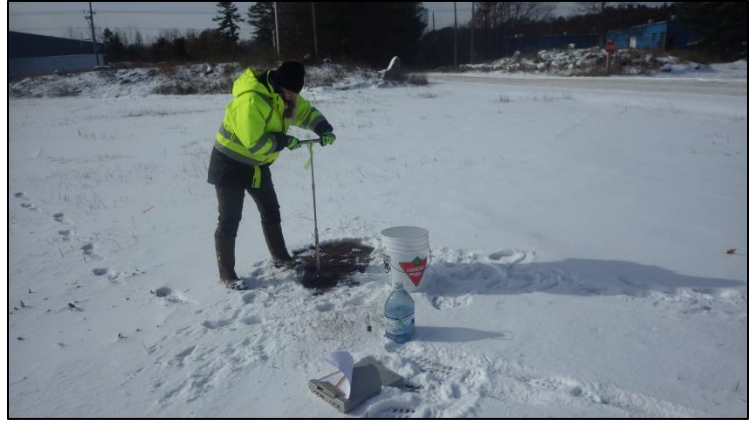
*Water sampling on the Wye River*



*Well Sampling at the Pinegrove site*

### Citizen Science

- Water Level Watchers volunteers from Farlain Lake submitted 11 water level observations from a static water gauge
- Continuing partnership with Copeland Forest Friends Association on stream data collection
- Continuing partnership with Water Rangers on trial of new water quality testing strips using bottom water samples from North and South Bays
- Added 3 volunteers to SSEA citizen science programs (Ice Spotters)



*Soil sampling at Fuller Pit snow disposal site*

### Additional Sampling

- Completed fall soil sampling at Penetanguishene snow disposal site
- Algae sampling and identification from MacLean Lake and Lake St. George in response to reports of blue-green algae blooms

## **Data Analysis and Reporting**

---

*Statistics, Data Management & Analysis, Stream Invertebrate ID, and GIS/Mapping*

### Reporting

- Fuller Pit Snow Disposal Site-Spring and Fall Soil Sampling data report (Penetanguishene)
- Updated summary displays for: water quality for Severn Sound open water and inland lakes, Georgian Bay water levels

### Statistics/Data Management & Analysis

- Analysis of sodium and chloride data for Severn Sound, inland lakes and PGMN well for reporting to Simcoe Muskoka District Health Unit
- 2019 ice-on data compilation
- Water level/climate data download and compilation

### Stream Invertebrate Identification

- 119 samples identified from the Coldwater River, Hogg Creek, Wye River and Baxter Lake watersheds
- A total of 11,170 bugs identified

## **Partnerships**

---

*New/Updated NGO partners and MOU's*

### NGO Partners

- Water Rangers – continuing to partner on citizen science water testing program

### Other Partners

- Métis Nation of Ontario

## Financial

---

*Donations, Grants, Budget, Invoicing and Revenue (fee for service)*

### Grants

- Funding from County of Simcoe Tree Planting Program will cover 100% of seedling costs for spring 2020 Community Tree Planting projects
- Subsidy of \$0.25 per tree from Forests Ontario has been approved for 2020 Tree Seedling Distribution program
- Funding applications submitted to: *Eastern Georgian Bay Initiative*, for Wye River invasive phragmites removal; Fisheries and Oceans Canada *Habitat Stewardship Program* for a Lake Sturgeon habitat improvement project

### Budget

- 2020 SSEA + SSS budget request letters sent to all municipal partners
- 2020 budget pre-meetings and deputations made to: Townships of Oro-Medonte, Tay, Springwater and Towns of Midland and Penetanguishene

### Cost Recovery

- Fuller Pit Snow Disposal Site Soil Sampling Project (Penetanguishene)
- Farlain Lake Water Level Gauge Installation (Tiny, Farlain Lake Community Association)
- Victoria Harbour Drinking Water Intake Monitoring (Tay)



*SSEA 2019 Festive Selfie Card*

**Thank you from Team SSEA**

- Julie Cayley - Executive Director
- Lex McPhail - IT Manager/GIS Applications Specialist
- Paula Madill - Ecosystem Technologist
- Michelle Hudolin - Wetlands & Habitat Biologist
- Aisha Chiandet - Water Scientist
- Melissa Carruthers – Risk Mgmt. Official./Risk Mgmt. Inspector
- Judy Limoges –Treasurer (p/t)
- Robert Canning – Invasive Species Program Coordinator
- Nikole Priestman – Watershed Health Field Technician
- Laurie Barron – Corporate Services Coordinator (p/t)
- Cody Avery- Drinking Water Source Protection Assistant

*Disclaimer: TWITTER, TWEET, RETWEET and the Twitter logo are trademarks of Twitter, Inc. or its affiliates*