

Severn Sound Environmental Association



Township of Springwater
Budget Deputation 2025
Julie Cayley, Executive Director

Orr Lake



Severn Sound Environmental Association (SSEA)

What is it?

- 1987 - Severn Sound identified as Great Lakes Area of Concern (AOC)
- 1997 - SSEA Founded
- 2003 - Severn Sound Delisted as AOC
- 2009 - SSEA Joint Municipal Service Board Established (*Municipal Act s.202*)
 - ED reports to Board representing 8 Municipal members
- Source Protection Authority (Ont. *Clean Water Act*, 2006)

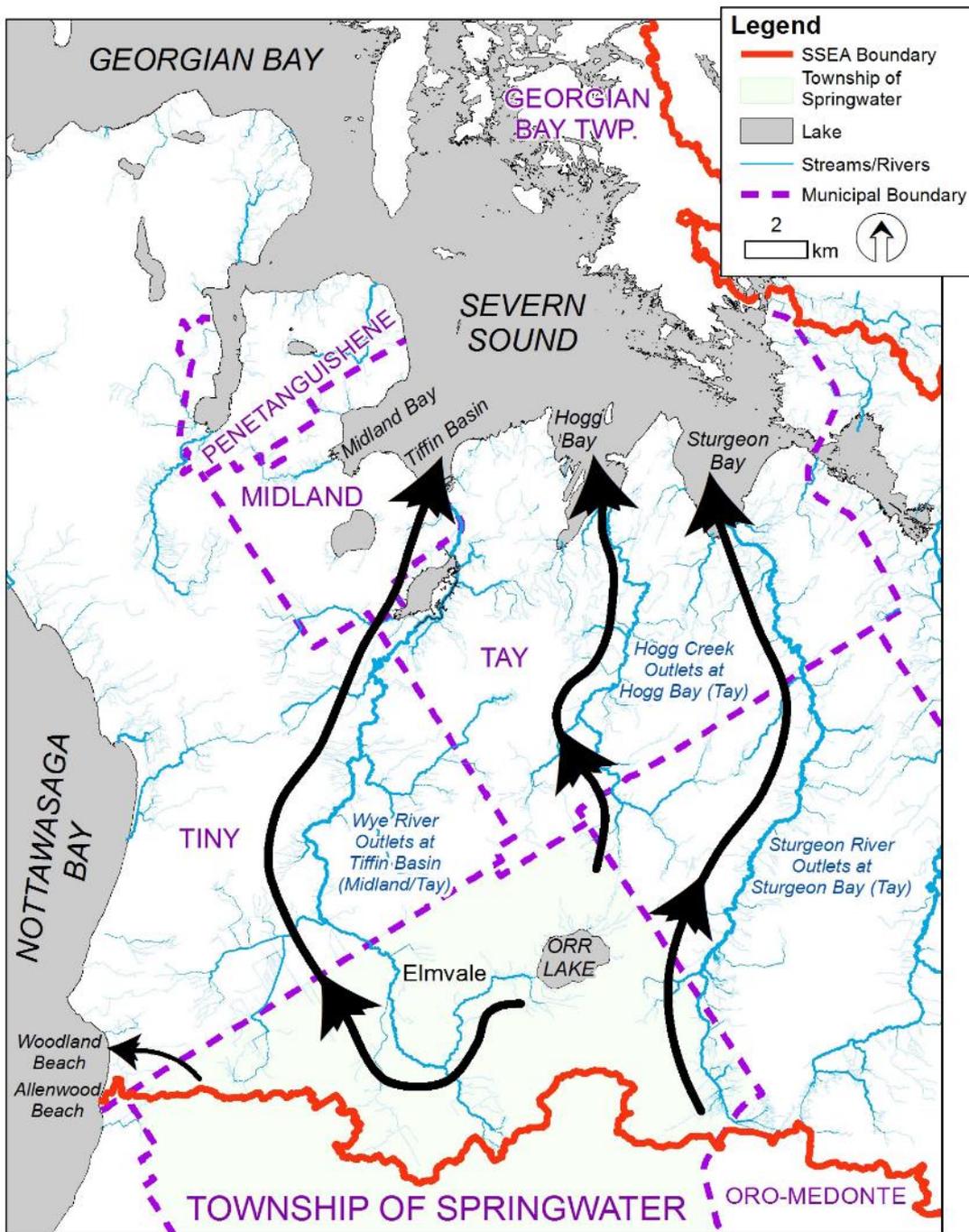


Follows established plans of action as outlined in the SSEA Letter of Agreement:

Guidance/Foundational Documents:

- SSEA Strategic Plan (2024-2029 in prep)
- Severn Sound Sustainability Plan (to 2050)
- Drinking Water Source Protection - Ontario Clean water and Safe Drinking Water Acts





Watersheds in Springwater Township

2024 Monitoring Highlights up to Oct 1

Algae Response & Monitoring

- 4 sites (Orr lake), 8 response events
 - Water quality, track algae trends & assisting MECP & SMDHU

Climate Monitoring

- 2 Weather stations (Midland & Lafontaine), access to SCFA stations including Elmvale
 - Monitor changes, report crop heat units & monthly rainfall

Stream Sampling (PWQMN)

- 1 site (Wye River), 9 sampling events
 - Oversee water quality trends & changes in ecosystem health

Stream Temperature

- 5 sites, (Wye R., Headwaters of Sturgeon R.) 10 events
 - Track warming trends & assess fish habitat



Blue green algae bloom identified on North side, Orr Lake

2024 Monitoring Highlights up to Oct 1

Stream Benthos

- 1 site on Sturgeon River
 - Assess early signs of stressors & community changes quality

Groundwater Monitoring (PGMN & SSEA wells)

- 2 sites, continuous water levels & temperature, 1 site sampled biennial (chemistry and metals)
 - Collect & assess baseline data and quality/quantity

Citizen Science Monitoring Programs

- Shore Watch, Stream Watch, Ice Spotters, Water Level Watch, Invasive Species Spotters
 - Report findings to SSEA & assist with the collection of water quality information



Stream benthic sampling
Sturgeon River



Measuring water level
at PGMN well

Environmental – CONCERNS

Orr Lake Water Quality

- Low oxygen under ice found in 2023, increasing total phosphorus trend & toxic algae blooms

Climate

- Changes in rainfall events & regional air temperature
 - Causing changes in water quality, algae growth, dissolved oxygen, & aquatic habitat

Stream Monitoring (PWQMN, & Stormwater Proj.)

- Stormwater proj. (2023) found impacts from SW/WW effluent
 - Higher Cl, TP & TSS during snowmelt & rain events
- PWQMN data shows decreasing total phosphorus but increasing biologically available phosphorus; increasing chloride and nitrogen



Winter water quality sampling Orr Lake



Sediment rich stormwater entering Wye River during rainfall event, Elmvale

2024 Stewardship

Highlights up to Oct 1

Restore the Shore

- 2 site visits & Naturalization Plans developed; native plants & seed to be provided
 - Engage & support landowners on shoreline naturalization, protecting water quality & ecological health

BEE Parks and Project SSEED

- Huronia Centennial Elementary School– planning stages
 - Technical, site-specific guidance that supports planning & implementing naturalization on municipal land & at schools; Native plants & seed to be provided



Orr Lake Park – Invasive Buckthorn removal

Invasive Species (IS)

- IS monitoring – 11 sites; IS management - 1 event at 1 site; responded to 5 municipal staff & resident inquires
 - Monitors, manages and educates the public about IS, which are a pervasive and dynamic risk to ecological, economic and human health (~\$3.6 billion/year in economic impact)

Tree Programs

- 9 tree distribution participants, 300 seedlings planted (5810 since 2010)
 - Enhances forest cover, which helps combat climate change, supports biodiversity & ecosystem health, and provides social, economic, and aesthetic benefits

2024 Education and Outreach

Highlights up to Oct 1

Community events

- Facilitated or participated in 5 community events
 - Increasing awareness and helping to create an engaged and informed community

Environmental issue response

- Respond to municipal staff and resident inquires
 - Providing expert knowledge, staff training, efficient responses, community engagement, and supporting environmental stewardship.

Invasive Species (IS)

- Township specific annual IS report (2023) - Severn Sound watershed portion
 - Summary of IS information including monitoring of IS on municipal properties & priority IS detected, vulnerable areas, & recommended actions for the upcoming year to be led by SSEA



Springwater 30 year Celebration

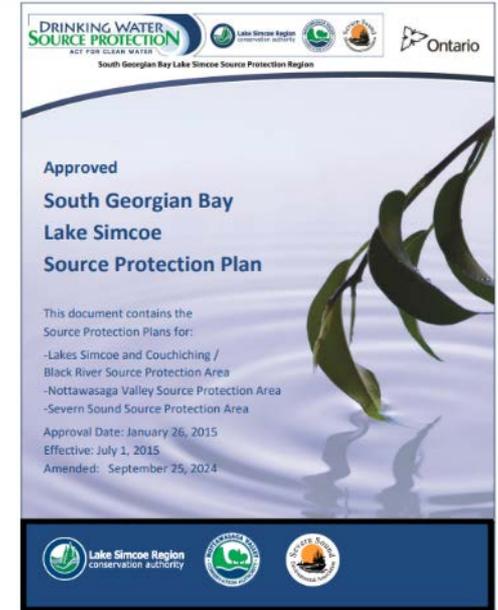
Protecting Municipal Drinking Water at the Source

Highlights up to Oct 1

Drinking Water Source Protection

Source Protection Authority

- SSEA is the *Source Protection Authority* - Ontario Regulation 284/07 under the Ontario Clean Water Act
- Done on a watershed basis
- Responsible for keeping the science behind the program up to date, assisting with annual reporting, and education and outreach
- In 2024 focused on the consultation periods required for incorporating the proposed Cassell Drive water system into the Source Protection Plan and Assessment Reports

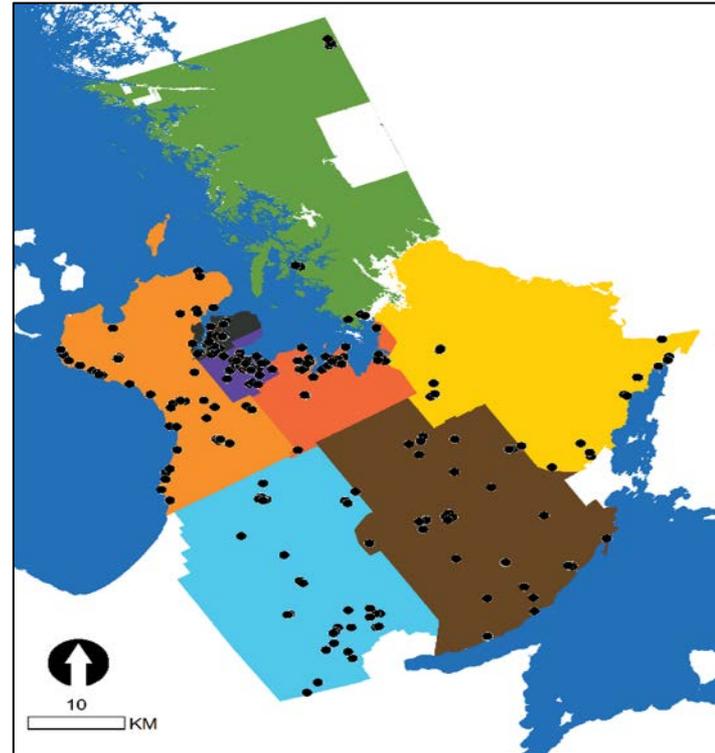


Sustainable Severn Sound

Highlights up to Oct 1

Sustainable Severn Sound (*provided by municipal boundary)

- Local Climate Change Action Plan development
 - Achieved Milestone 1 – Baseline Inventory – September 2024
 - Working with staff and council to achieve Milestone 2 – Establishing a Reduction Target
 - Developing the Local Climate Change Action Plan will achieve Milestone 3.
 - Hosted 2 open-house events, attended Elmvale farmer's market to promote the community survey
- Organized a municipal climate adaptation workshop for Nov 2024
- Tap into funding opportunities – **Enbridge \$10k**
- Municipal Climate Plan implementation & support to the Federation of Canadian Municipalities (FCM) Partners for Climate Protection (PCP) program



SSS project area. Dots represent municipal facilities. Springwater shown in light blue

Value-added Examples

- Provide educational material for municipal mailouts
- Collaborate on grants
- Provide advice on municipal operations that impact the environment
- Provide educational material/attend municipal events
- High Value Data
 - Allows Twp to make evidence-based, informed resource management decisions
 - Background info for land use planning reviews, infrastructure related reviews (ESRs, Class EAs)
 - Climate adaptation planning and risk analysis
 - Protect public health - blue green algae bloom monitoring
 - Communicate to the public the health of the watershed



SSEA staff assessing public beach area for BG algae, Orr Lake

2025 SSEA Work Plan - Highlights

Monitoring

- Recommend Shifting to annual Monitoring of Orr Lake
- Climate & Water Quality (Open Water, Streams, Benthos, Temp Monitoring)
- Near real time weather station data on www.Severnsound.ca
- Invasive Species Program (Identification, Detection, Monitoring)

Fish & Wildlife Habitat/Natural Heritage – Stewardship

- Public & Municipal Habitat/Stewardship looking to continue Restore the Shore, BEE parks, Project SSEED
- Tree Planting & Distribution
- Habitat Assessment, Plan Input & Review (Township Requests)
- Invasive Species Management Training



Restore the Shore site visit, Orr Lake

2025 SSEA Work Plan - Highlights

Drinking Water Source Protection

- Source Protection Authority

Climate Action – Sustainable Severn Sound

Finalize draft Local Climate Change Action plan with staff, council, and the community (Achieve Milestone 3 of PCP Program)

- SSEA Municipal Climate Leadership Committee (Meet, Share Success Stories)
- Review and advance climate and energy funding opportunities

Education & Outreach

- Events, Media, Presentations, Social Media, Info Sheets, Webinars, Videos

Available to Township staff & Council for inquiries, expert advice & support.



Sustainable Severn Sound display at the Elmvale Farmers Market

SSEA 2025 Request – Springwater

2025 Total Budget Request: \$113,637

Operations Core Municipal Funding

- **\$98,972**

Orr Lake Water Quality Monitoring Survey

- **\$1,751**

Tree Distribution Program

- **\$0** (In-kind time from Township)

Sustainable Severn Sound project

Technical GHG data analysis, climate plan support, PCP Associate Member services, enhanced communications, building climate resilience

- **\$12,914**



Thank you!

Severn Sound Environmental Association

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**SSEA...Keeping Severn Sound healthy...for
the next generation and beyond**

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