

Severn Sound Environmental Association

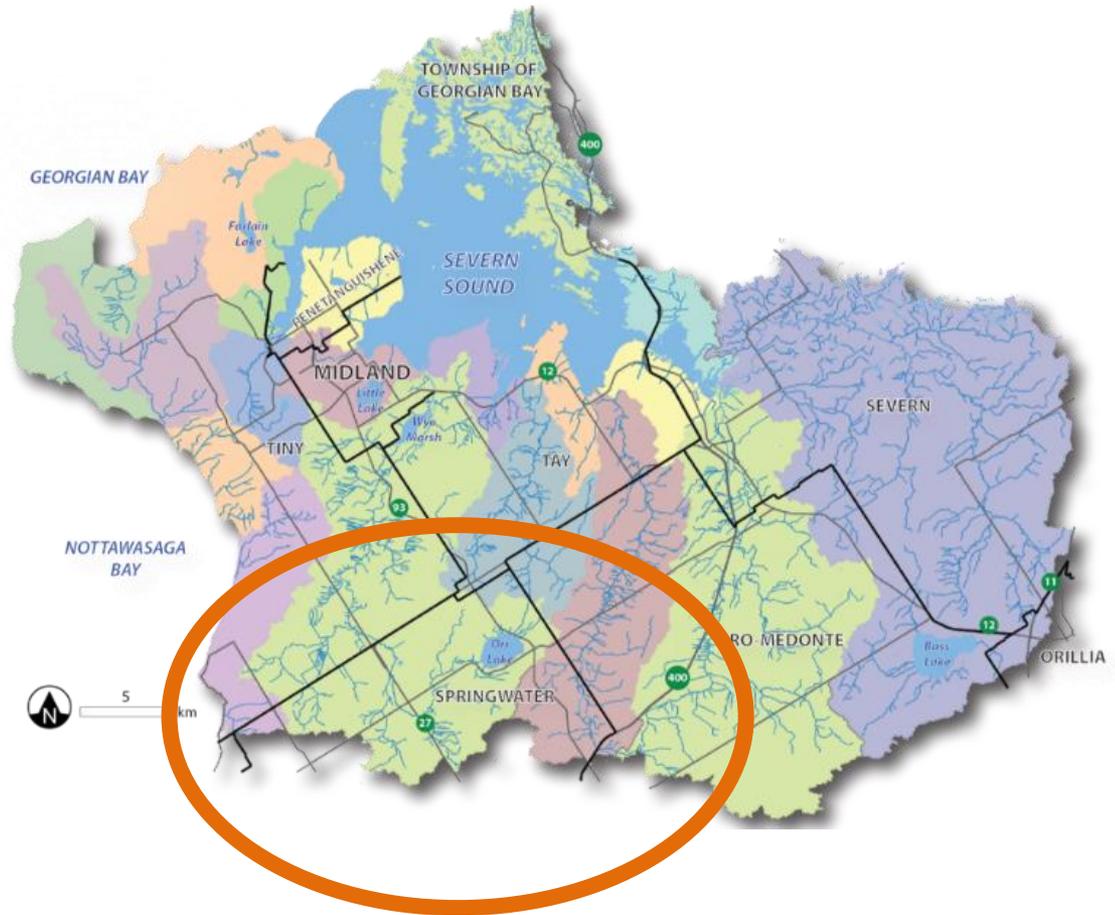


Township of Springwater
Budget Deputation 2024
Julie Cayley, Executive Director



What is the Severn Sound Environmental Association (SSEA)?

- 1987 - Severn Sound identified as Great Lakes Area of Concern (AOC)
- 1997 - SSEA Founded by watershed Municipalities
- 2003 - Severn Sound Delisted as AOC
- 2009 - SSEA Joint Municipal Service Board Established (*Municipal Act s.202*) – environmental arm of 8 member Municipalities
- Source Protection Authority (Ont. *Clean Water Act*, 2006)



Field Monitoring Highlights - 2023

Lake Monitoring (Orr Lake)

- Winter sampling
- In-house capability for **blue green algae bloom** identification; supported MECP/HU during Orr L bloom

Climate Monitoring

- Weather stations - SSEA weather stations (Midland & Lafontaine), access to SCFA stations including Elmvale
- Rain gauge (Ingram Sdrd)

Tributary Monitoring

- Wye R, Sturgeon R, Hogg Ck (chemistry, temperature, benthic invertebrate)

Stormwater Monitoring

- Piloting the Inclusion of Wastewater and Stormwater Effluents into Existing Watershed Monitoring Program (MECP funded)

Citizen Science Monitoring Programs

- Ice Spotters, Shore Watch, Stream Watch, Invasive Species Spotters



Blue green algae bloom identified on Orr Lake



Flow monitoring at stormwater site on Wye R



Winter sampling on Orr Lake

Water Quality – CONCERNS

Orr Lake Water Quality

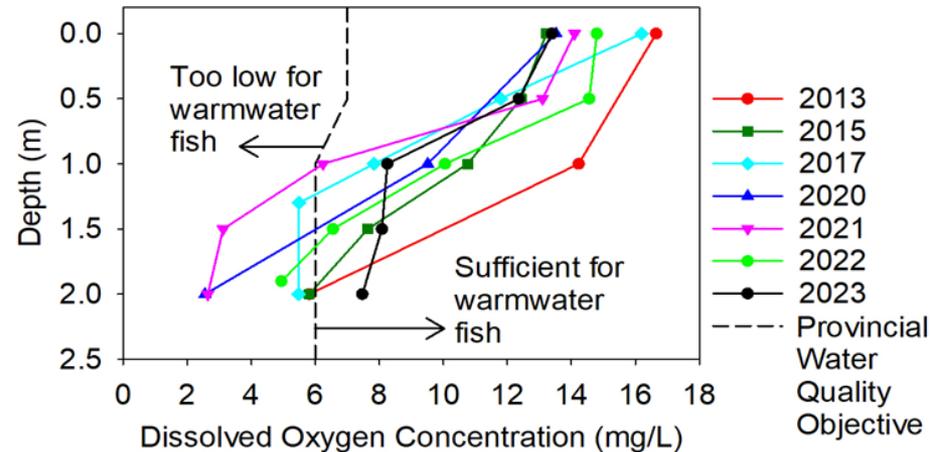
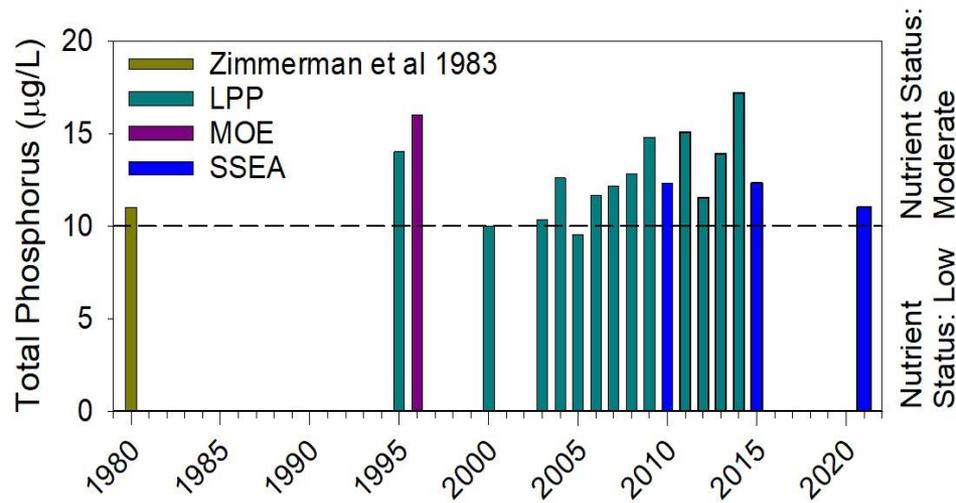
- Low oxygen under ice, 2023 algae blooms, increasing total phosphorus trend

Climate

- Long term regional air temperature increases
 - Significance re: water quality, algae growth, dissolved oxygen, stress on fish

Tributary (Stream) Monitoring

- Decreasing total phosphorus but increasing biologically available phosphorus; increasing chloride and nitrogen



Stewardship, Invasive Species (IS) & DWSP Program Highlights - 2023

- 300+ native seedlings distributed to Springwater participants (spring 2023)
- More than 5,500 seedlings distributed to date in Springwater
- Provided Township with native tree species information for Springwater area
- Successfully secured funding under Federal 2 Billion Trees program
- *Invasive Species program*
 - SSEA staff experts available for Township staff & residents inquiries
 - Municipal Working Group, Annual Springwater specific IS Report
 - “Invasive Species Spotters” citizen science opportunities
 - Resources - factsheets & videos at www.severnsound.ca
- Provided Township with information on pollinators and No Mow May
- *Drinking Water Source Protection (DWSP)*
 - SSEA is your Source Protection Authority (Clean Water Act 2006)



Tree Planting & Seedling Distribution

Township of Springwater Budget Deputation 2024



Pollinator: Monarch Butterfly



Sustainable Severn Sound Highlights - 2023

Partners for Climate Protection (PCP) is a program offered by the Federation of Canadian Municipalities (FCM) and ICLEI.

Springwater joined the program in 2022. The project is a collaborative between the 8 SSEA members: **Midland, Penetanguishene, Tay, Tiny, Severn, Oro-Medonte, Georgian Bay, and Springwater.**

We are nearing completing the baseline for Springwater – Milestone 1



Snapshot of the PCP Process

**MILESTONE 1:
CREATING AN
INVENTORY**



**MILESTONE 2:
SETTING
A TARGET**



**MILESTONE 3:
DEVELOPING
A PLAN**



**MILESTONE 5:
MONITORING
THE IMPACT**



**ADVANCING THE
COMMITMENT**



**MILESTONE 4:
IMPLEMENTING
A PLAN**



The Model: Partners for Climate Protection (PCP) Program Framework

- + 1. Create a Baseline Emissions Inventory and Forecast
- + 2. Set Emissions Reductions Targets
- + 3. Develop a local action plan
- + 4. Implement the Local Action Plan
- + 5. Monitor progress and reporting results



FEDERATION
OF CANADIAN
MUNICIPALITIES

FÉDÉRATION
CANADIENNE DES
MUNICIPALITÉS

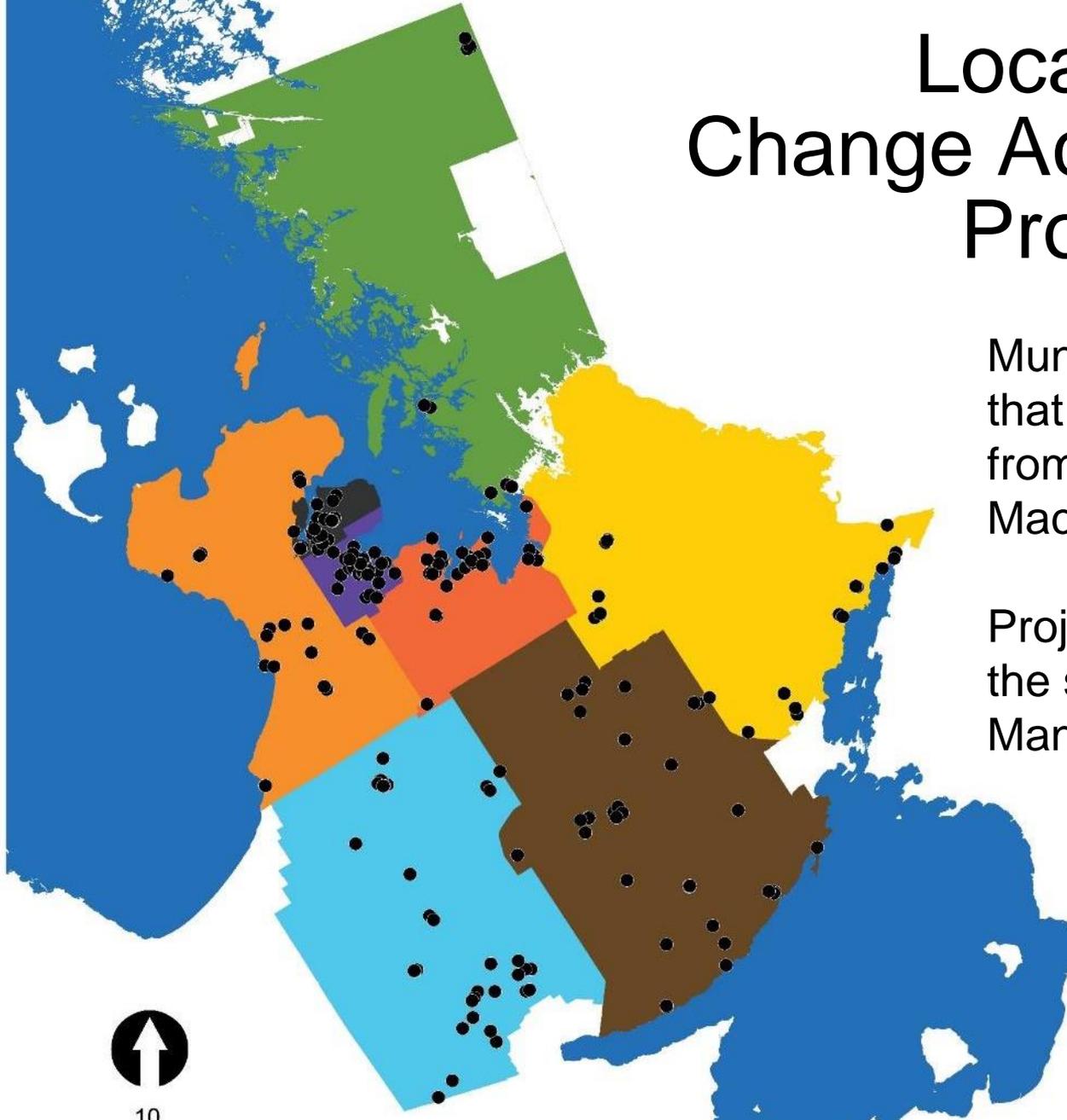
I.C.L.E.I Local Governments for Sustainability



Local Climate Change Action Plan Project Area

Municipal facilities that we're tracking – from Minesing to MacTier!

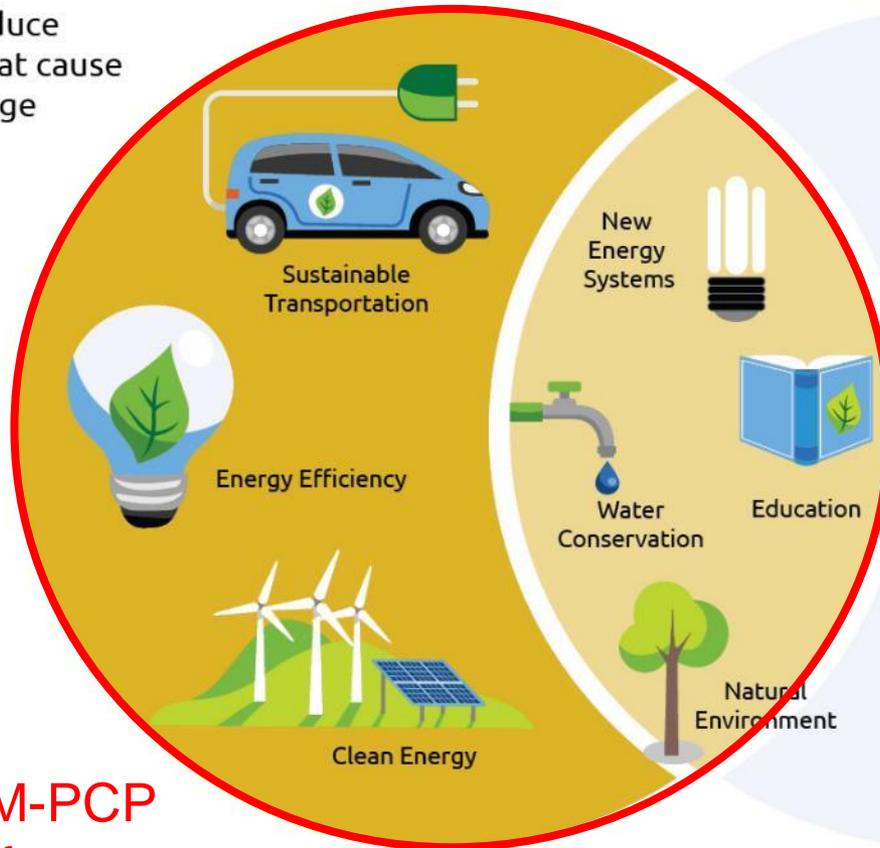
Project area is near the size of Manitoulin Island



Mitigation vs. Adaptation

Mitigation

Action to reduce emissions that cause climate change



Adaptation

Action to manage the risks of climate change impacts



Disaster Management & Business Continuity



Infrastructure Upgrades



Flood Protection

*The FCM-PCP program focuses on Mitigation



Electric Vehicle Charging Stations

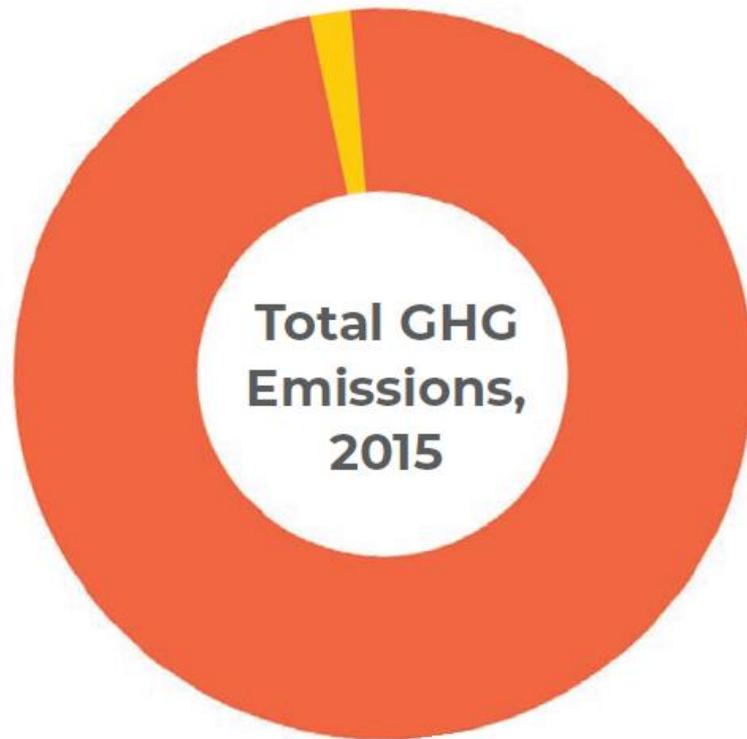


- We are working with Springwater staff to identify funding for charging infrastructure
- Current 50% cost-share program **ZEVIP** – from NRCAN & new opportunities just released!
- Chargers needed for municipal fleet
- Chargers needed for community EVs



What the other baselines found:

Corporate vs Community Energy Use - 2015



1% CORPORATE
99% COMMUNITY

Corporate/Municipal:

- Fleet
- Buildings (Arena, Libraries, Townhalls, Firehalls, PW),
- Water/Wastewater (Treatment plants, pump stations),
- Streetlights & waste

Community:

- Transportation,
- Residential,
- Commercial/Institutional,
- Waste
- Industrial



What your baseline might look like:

Emissions by Source



Stationary Energy

74,083tCO₂e



Transportation

112,125tCO₂e



Waste

9,187tCO₂e



Industrial Processes And Product Uses (IPPU)

NE ⓘ



Agriculture, Forestry And Other Land Use (AFOLU)

NE ⓘ



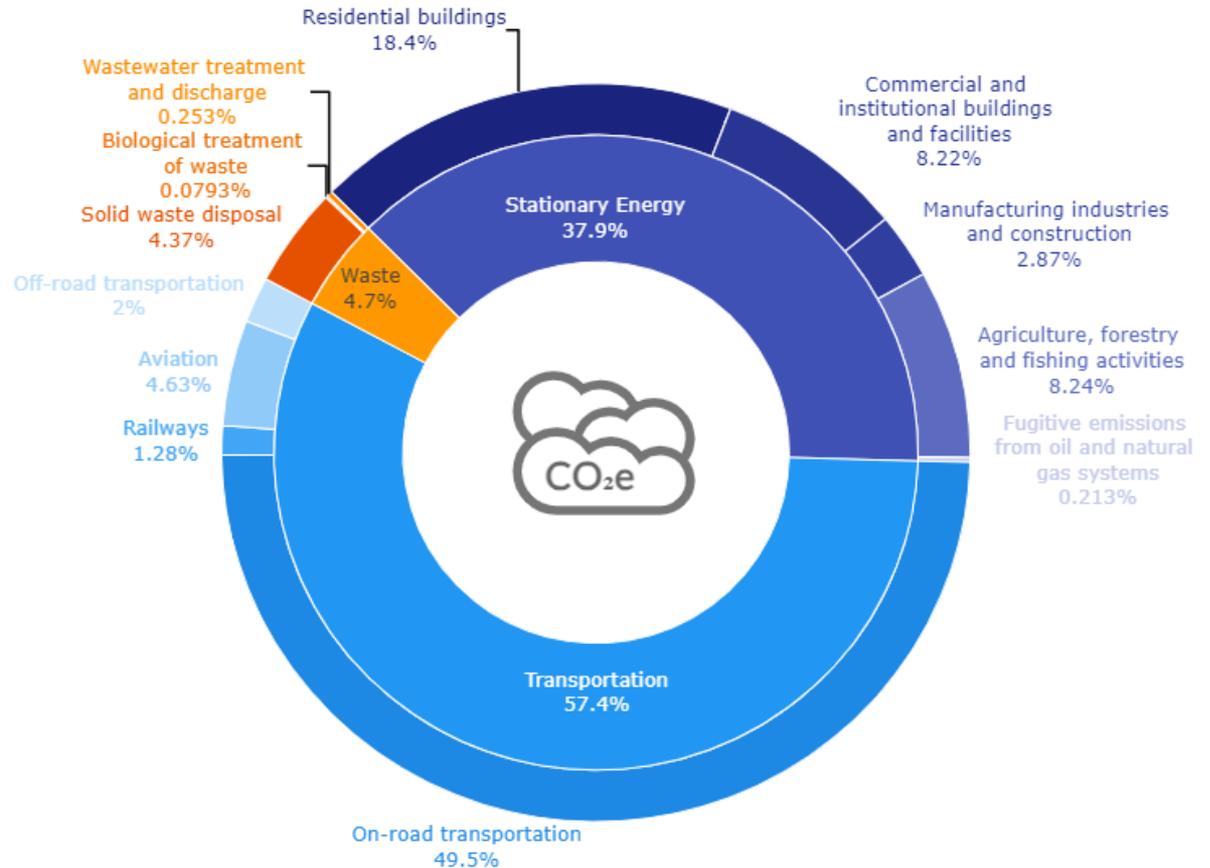
Total Annual Emissions

195,395tCO₂e



Emissions per capita

10.252tCO₂e



Municipal Energy + Emissions Database



Springwater Energy Providers:

*Hydro-One - Electricity

*Enbridge - Natural Gas

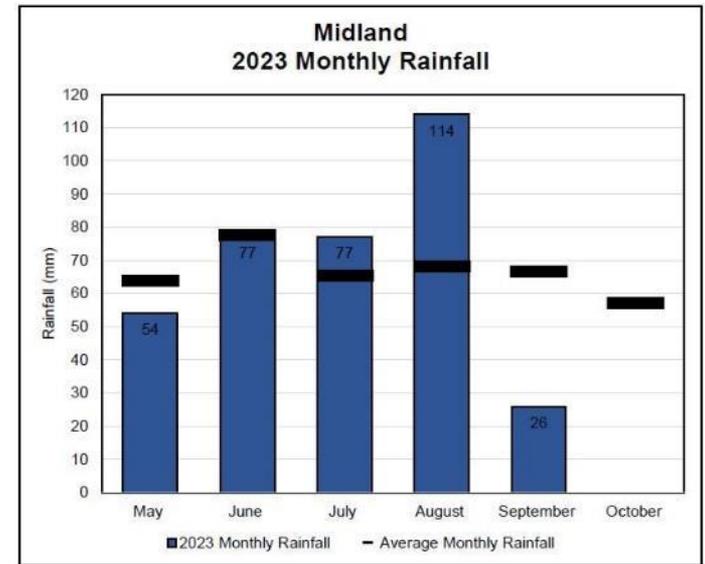
Others: (beyond scope)

- Superior Propane
- McDougall Propane
- Budget Propane
- Mayes-Martin Ltd.

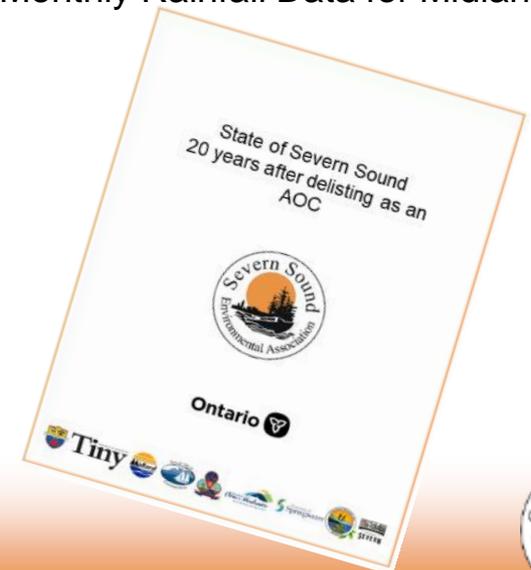


2024 SSEA Work Plan Items

- Implementation of SSEA Renewed Strategic Plan
- Drinking Water Source Protection
- Habitat and stewardship information for public and municipal inquiries
- Tree Planting & Tree Distribution
- Habitat Assessment, Plan Input & Review as requested by the Township
- Environmental Monitoring
 - State of Severn Sound Report (20 years)
 - Reporting for Stormwater project
 - Climate, Water Quality (Orr L under ice, Streams)
 - Weather stations (Midland & Lafontaine & Elmvale)



Monthly Rainfall Data for Midland



2024 SSEA Work Plan Items Cont'd

- Invasive Species Program
 - Identification, detection, monitoring, management training, education – available for Township staff and public training
- Sustainable Severn Sound special project
 - Launch community engagement to receive input towards the development of Springwater's Local Climate Change Action Plan
 - *SSEA Municipal Climate Leadership Committee* - meet and share success stories and funding opportunities
- Education and Outreach
 - Events, media, presentations, social media, info sheets, webinars, videos, etc.



SSEA 2024 Request – Springwater

2024 Total Budget Request: \$107,814

Operations Core Municipal Funding

- **\$95,090**

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

- **\$12,724**



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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