

Grey Sauble Conservation Authority
R.R. #4, 237897 Inglis Falls Road
Owen Sound, Ontario N4K 5N6 (519) 376-3076; ext. 221
v.coleman@greysauble.on.ca

The next regular meeting of the Grey Sauble Conservation Authority Board of Directors is scheduled for Wednesday, March 22nd, 2023, at 1:15 p.m. The regular meeting will occur in a hybrid format, both in person at the GSCA Administrative Centre and via the Webex web-based application. Please notify Valerie Coleman if you are unable to attend.

Directors

Sue Carleton (Chair)
Greig, Scott (Vice Chair)
Bell, Tony
Day, Tobin
Dubyk, Nadia
Farmer, Jon
Kirkland, Jay
Mackey, Scott
Maxwell, Alex
Shaw, Jennifer
Uhrig, Robert

Honourary Members

Betty Adair

Oosting, Lara, MNRF Peterborough
Allison, Tracy, MNRF Owen Sound
Byers, Rick, MPP Bruce Grey Owen Sound
Ruff, Alex, MP Bruce Grey Owen Sound
Dowdall, Terry, MP Simcoe-Grey
Saunderson, Brian, MPP Simcoe-Grey

Member Municipalities

Municipality of Arran-Elderslie, Town of the Blue Mountains, Township of Chatsworth, Township of Georgian Bluffs, Municipality of Grey Highlands, Municipality of Meaford, City of Owen Sound, Town of South Bruce Peninsula

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https://www.youtube.com/channel/UCy_ie5dXG8aFYDYGe8tV9Yg/videos.

Please note that this is a Notice of Meeting only for your information.

The Sun Times
Bayshore Broadcasting
The Meaford Independent
The Bounce
The Wiarton Echo
The Advance
The Post
The Thornbury Paper
The Hub Owen Sound
Blue Mountains Review
South Grey News
Collingwood Today

Member Municipalities

Municipality of Arran-Elderslie, Town of the Blue Mountains, Township of Chatsworth, Township of Georgian Bluffs, Municipality of Grey Highlands, Municipality of Meaford, City of Owen Sound, Town of South Bruce Peninsula

AGENDA

Grey Sauble Conservation Authority
Full Authority Meeting
Wednesday, March 22, 2023, at 1:15 p.m.

1. Call to Order

We acknowledge with respect, the history, spirituality, and culture of the Anishinabek: The People of the Three Fires known as Ojibway, Odawa, and Pottawatomi Nation, who have inhabited this land from time immemorial. And further give thanks to the Chippewa of Saugeen, and the Chippewa of Nawash, now known as the Saugeen Ojibway Nation, as the traditional keepers of this land. We also recognize, the Metis whose ancestors shared this land and these waters. May we all, as Treaty People, live with respect on this land, and live-in peace and friendship with all its diverse peoples.

2. Disclosure of Pecuniary Interest

3. Call for Additional Agenda Items

4. Adoption of the Agenda

5. Approval of Minutes

- i. Full Authority – December 21, 2022 – Resolution – Attachment #1

6. Business Out of Minutes – None at this time.

7. Consent Agenda

- i. Environmental Planning – Section 28 Permits – February 2023 – Attachment #2
- ii. Administration – Receipts & Expenses – February 2023 – Attachment #3
- iii. Correspondence – None at this time.
- iv. Conservation Ontario – None at this time.
- v. Minutes – GSC Foundation – January 18, 2023– Attachment #4
- vi. Media – Attachment #5

8. Business Items

- i. Board Orientation
 - a. IT Policy – Information – Attachment # 6 (20 min)
- ii. Administration
 - a. Agricultural Advisory Committee – Terms of Reference Update - Resolution – Attachment # 7 (10 min)

- iii. Water Management
 - a. Watershed Health Check & Report Card – Information - Attachment # 8 & 9 (20 min)
- iv. Environmental Planning
 - a. 2022 Planning Department Update – Information – Attachment # 10 (15 min)
- v. Operations
 - a. 2022 Parking Revenue Update – Information – Attachment # 11 (15 min)
 - b. Hibou 50th Anniversary Report – Resolution – Attachment # 12 (15 in)
- vi. Conservation Lands – Nothing at this time.
- vii. Forestry
 - a. Stewardship Project Update – Information – Attachment # 13 (15 min)
- viii. Communication/Public Relations – Nothing at this time.
- ix. Education
 - a. Day Camp Update – Information – Attachment #14 (20 min)
- x. GIS/IT – Nothing at this time.
- xi. DWSP/RMO Report – Nothing at this time.

9. CAO's Report

10. Chair's Report

11. Resolution to Move into Closed Session

“THAT the GSCA Board of Directors now move into ‘Closed Session’ to consider:

- i. Minutes of the Closed Session of the Regular Board of Directors meeting held on February 22, 2023; and,
- ii. To discuss three separate items of commercial significance, such as but not limited to a proposed or pending acquisition of real property for Authority purposes, internal reserve bid amounts, leases and property sales (GSCA Administrative By-Law Section 4 (xvi)(g));
- iii. To discuss a Human Resources item – closed as it relates to personal matters about an identifiable individual including Authority directors or Authority employees (GSCA Administrative By-Law, Section 4(xvi)(b)).

12. Resolution that the Board of Directors has resumed Open Session

13. Resolution Approving the Closed Session Minutes of February 22, 2023

14. Reporting out of Closed Session

15. Adjournment

Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-028

MOVED BY: _____

SECONDED BY: _____

THAT the Grey Sauble Conservation Authority Board of Directors approve the agenda of March 22, 2023.



**GREY SAUBLE CONSERVATION AUTHORITY
MINUTES**
Annual General Meeting & Full Authority Board of Directors
Wednesday, February 22, 2023, at 1:00 p.m.

The Grey Sauble Conservation Authority (GSCA) Board of Directors' meeting was held in a hybrid format of in-person at the Grey Sauble Conservation Authority Administrative Office and virtually via the meeting application, WebEx.

1. Call to Order

Chair Scott Greig called the meeting to order at 1:00 p.m., welcomed all those present in person and virtually, and welcomed past Board Members and Guests.

Directors Present In-Person: Chair Scott Greig, Jon Farmer, Scott Mackey, Robert Uhrig, Tony Bell, Tobin Day, Sue Carleton, Nadia Dubyk, Alex Maxwell, Jay Kirkland, Jennifer Shaw

Directors Present Virtually: None

Regrets: None

Staff Present: CAO, Tim Lanthier; Administrative Assistant, Valerie Coleman; Manager of Information Services, Gloria Dangerfield; Manager of Financial and Human Resource Services, Alison Armstrong; Manager of Conservation Lands, Rebecca Anthony; Water Resources Coordinator, John Bittorf; Forestry Coordinator, Mike Fry; Forestry Technician, Cam Bennett; DSWP Coordinator, Carl Seider; Manager of Environmental Planning, MacLean Plewes; Operations Manager, Morgan Barrie

Guests In-Person: Marion Koepke, Andrea Matrosovs, Randy Scherzer, Don Sankey, Dick Hibma, Cathy Little, Barbara Dobreen, Jennifer Stephens, Nancy McGee, Bob Knapp

Guest Virtual: MP Alex Ruff

2. Disclosure of Pecuniary Interest

The Directors were reminded to disclose any pecuniary interest that may arise during the course of the meeting. No disclosures of pecuniary interest were expressed at the time.

3. Call for Additional Agenda Items

Nothing at this time.

4. Adoption of Agenda

Motion No.:
FA-23-001

Moved By: Tony Bell
Seconded By: Scott Mackey

THAT the Grey Sauble Conservation Authority Board of Directors approve the agenda of February 22, 2023.

Carried

5. Remarks from the Chair

Chair Greig expressed how great it was to have the GSCA AGM in person once again. Asked Members and guests to reflect on the passing of Elwood Moore and gave a brief history of who Elwood was and his long contribution to the GSCA, his community, and the environment.

“Let us sit for this term committed to advancing conservation endeavors and results and to better inform and educate residents on the benefits of protecting our natural resources for today’s generation, tomorrow’s generations and beyond.”

It was noted that the GSCA celebrated Elwood’s 100th birthday with a commemorative bench in the Inglis Falls Arboretum and that despite the weather Elwood was able to join and share a few words.

Chair Greig remarked on the difficulties and pressures that Conservation Authorities and Municipalities have experienced in the last few years.

“It has certainly been my pleasure the last two years to represent the Authority, pulling together as one and continuing to punch well above its weight for our comparable size of Authorities in Ontario.”

6. Greetings from Guests

MP Alex Ruff brought greetings from his office and wished to have been able to attend in person. MP Ruff gave thanks to the Board, Elwood Moore, and the GSCA.

Deputy CAO, Randy Scherzer, brought greetings from Grey County, and looks forward to continuing to work with GSCA staff and Board.

Deputy Mayor Barbara Dobreen, Saugeen Valley CA Board Chair, and, Jennifer Stephens, SVCA General Manager, brought greetings from Saugeen Valley CA, remarked on how strongly GSCA and SVCA have continued to move forward on their mutual mission and vision. Looking forward to continuing working with the GSCA and Board.

Board Chair Don Sankey brought greetings on behalf of the Grey Sauble Conservation Foundation (GSCF) and gave a brief introduction of the work that the GSCF does in the community and for GSCA.

Board Chair Bob Knapp brought greetings on behalf of the Friends of Hibou (FoH) and gave a brief introduction of the FoH group and the work they do on behalf of the GSCA. 2023 marks the 50th Anniversary of the Hibou Conservation Area and will be marked with a celebratory concert.

Past Board Chair, Cathy Little brought greetings as past Board Chair and Friends of Kimberly Forest, mentioned that it was refreshing to see so many new Board Members and expressed that they will find it a rewarding experience.

Mayor Andrea Matrosovs brought greetings on behalf of the Town of the Blue Mountains and as past Vice Chair. Expressed the rewarding experience of being part of and contributing to the GSCA.

7. Board Appointments

i. Election of Officers

a. Appointment of Chair Pro Tem

Chair Greig asked for Dick Hibma to be appointed as Chair Pro Tem and vacated the Chair's position.

Motion No.:
FA-23-002

Moved By: Robert Uhrig
Seconded By: Nadia Dubyk

THAT Dick Hibma be appointed as Chair Pro Tem for the 2023 election of officers.

Carried

b. Review of Voting Procedures

Chair Pro Tem, Dick Hibma, acknowledged the privilege and thanked the Board for having him serve as Chair Pro Tem. Mr. Hibma gave a brief review of the voting procedures for electing the Chair and Vice Chair.

c. Appointment of Scrutineers

Motion No.:
FA-23-003

Moved By: Jon Farmer
Seconded By: Jennifer Shaw

THAT Don Sankey and Randy Scherzer be appointed scrutineers.

Carried

Chair Pro Tem, Dick Hibma, called three (3) times for nominations from the floor for the position of Chair for 2023.

1. Member Scott Mackey nominated Sue Carleton for the position of Chair for 2023.
2. No nominations.
3. No nominations.

d. Election of 2023 Chair

Motion No.:
FA-23-004

Moved By: Nadia Dubyk
Seconded By: Scott Greig

THAT nominations for the election of Chair for 2023 close.

Carried

Member Sue Carleton accepted her nomination of Chair for 2023 and thanked Member Scott Mackey for nominating her.

Chair Pro Tem, Dick Hibma, declared Sue Carleton as Chair for 2023 by acclamation.

e. Election of 2023 Vice Chair

Chair Pro Tem, Dick Hibma, called three (3) times for nominations from the floor for the position of Vice Chair for 2023.

1. Member Scott Mackey nominated Scott Greig for the position of Vice Chair for 2023.
2. No nominations.
3. No nominations.

| | | |
|--|---|--|
| Motion No.: FA-23-005 | Moved By: Seconded By: | Jay Kirkland Robert Uhrig |
|--|---|--|

THAT nominations for the election of Vice Chair for 2023 close.

Carried

Member Scott Greig accepted his nomination of Vice Chair for 2023 and thanked Member Scott Mackey for nominating him.

Chair Pro Tem, Dick Hibma, declared Scott Greig as Chair for 2023 by acclamation.

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| Motion No.: FA-23-006 | Moved By: Seconded By: | Jon Farmer Tony Bell |
|--|---|---------------------------------------|

THAT the Grey Sauble Conservation Authority Board of Directors has elected and/or appointed for the year 2023 GSCA Officers as follows:

Chair: Sue Carleton

Vice Chair: Scott Greig

Carried

ii. Remarks by 2023 Chair Elect and 2023 Vice Chair Elect

“I would like to start off by thanking those who nominated me, and to all of you who believe that I have the skillset needed to be the Chair. I attended my first Grey Sauble Conservation Authority meeting six years ago, at a meeting similar to this one with Dick Hibma being elected as the Chair. At the time, Dick had been Chair for a number of years and looked to be willing to carry on for many more years. Even then I can remember thinking to myself this was not a position I thought I would ever want to do. And I thought that because I knew very little about the conservation authority at the time and what they did. I know fractionally more now but the difference is that I know firmly believe in what our Conservation Authority does. I see the value given to our municipalities and our communities. I think it is important that we support all conservation authorities to make use our lands are properly cared for, to ensure future generations have green spaces to visit, trails to walk on, species to appreciate, and so much more.” – Chair, Sue Carleton

Chair Carleton gave thanks to staff, fellow Board Members, volunteers and partners.

Vice Chair Scott Greig expressed that he has always enjoyed his time working with the GSCA and looks forward to continuing to work with the Board and staff to meet the pressures and challenges in the coming year.

iii. Appointments

A Member asked if Members are required to serve on a minimum number of committees. The CAO answered that Members are not required to serve on a minimum number of committees, just that committees have a specified number of members.

Member asked how much time commitment is required. Vice Chair Greig answered that the time required has not been onerous.

a. Conservation Foundation

- i. Scott Mackey, Nadia Dubyk, Tobin Day, and Scott Greig volunteered.

b. Forestry Committee

- i. Jay Kirkland, Scott Greig, and Scott Mackey volunteered.

c. Arboretum Alliance

- i. Sue Carleton volunteered.

d. Indigenous and GSCA Relationships Committee

- i. Jon Farmer, Tobin Day, Nadia Dubyk, Robert Uhrig, and Jennifer Shaw volunteered.

e. Agricultural Committee

- i. Tony Bell, Alex Maxwell, (Scott Mackey, Jennifer Shaw)
 - Staff to bring forward amended Terms of Reference to the next Board Meeting to expand the number of members for this committee.

f. Building Ad Hoc Committee

- i. Alex Maxwell, Nadia Dubyk, Jay Kirkland, Scott Greig

Motion No.:
FA-23-007

Moved By: Jon Farmer
Seconded By: Robert Uhrig

THAT the Grey Sauble Conservation Authority Board of Directors make the following appointments to the Committees as listed:

Conservation Foundation – Scott Mackey, Nadia Dubyk, Tobin Day, and Scott Greig

Forestry Committee – Jay Kirkland, Scott Greig, and Scott Mackey

Arboretum Alliance – Sue Carleton

Conservation Ontario Council

Voting Reps – Sue Carleton

1st Alternate – Scott Greig

2nd Alternate – Tim Lanthier

Indigenous Relationships Committee – Jon Farmer, Tobin Day, Nadia Dubyk, Robert Uhrig, and Jennifer Shaw

Building Ad Hoc Committee – Alex Maxwell, Nadia Dubyk, Jay Kirkland, and Scott Greig

Agricultural Advisory Committee – Tony Bell and Alex Maxwell

Carried

iv. Appointment of General Counsel

| | | |
|--|---|---|
| Motion No.: FA-23-008 | Moved By: Seconded By: | Scott Greig Jon Farmer |
|--|---|---|

THAT the Grey Sauble Conservation Authority Board of Directors appoint Middlebro' & Stevens LLP as GSCA's General Counsel for the year 2023, with the option to engage the services of other solicitors, as necessary.

Carried

v. 2023 Board of Directors Meeting Schedule

| | | |
|--|---|--|
| Motion No.: FA-23-009 | Moved By: Seconded By: | Scott Greig Jennifer Shaw |
|--|---|--|

THAT the Grey Sauble Conservation Authority Board of Directors approve the 2023 BOD's meeting dates as follows:

February 22nd (AGM); March 22nd; April 26th; May 24th; June 28th; July 26th (optional); August 23rd; September 27th; October 25th; November 22nd; and December 20th.

Carried

The Board of Directors recessed for 15 minutes at 2:13 p.m.

8. Approval of Minutes

| | | |
|--|---|---|
| Motion No.: FA-23-010 | Moved By: Seconded By: | Scott Greig Robert Uhrig |
|--|---|---|

THAT the Grey Sauble Conservation Authority Board of Directors approve the Full Authority minutes of December 21, 2022.

Carried

A Member remarked on a question that had been raised regarding including Member names in comments and questions, the matter had been reviewed and it was concluded that, not including Member's names is the standard practice.

A Member commented that they prefer Member names being included, however; deferred to the will of the Board. Names will not be included.

9. Business Out of Minutes

Nothing at this time.

10. Consent Agenda

Motion No.:
FA-23-011

Moved By: Scott Mackey
Seconded By: Jennifer Shaw

THAT in consideration of the Consent Agenda Items listed on the February 22, 2023, agenda, the Grey Sauble Conservation Authority Board of Directors receives the following items: (i) Environmental Planning – Section 28 Permits – December 2022 & January 2023; (ii) Administration – Receipts & Expenses – December 2022 & January 2023; (v) Minutes – GSC Foundation – December 7, 2023; Friends of Hibou – November 14, 2022; Inglis Falls Arboretum Alliance – September 30, 2022; Beaver River Watershed Initiative – June & September 2022; (vi) Recent Media Articles

Carried

A Member asked with regard to GSCA receipts and expenses, are staff are able to settle accounts prior to approval? The CAO clarified that staff are able to process accounts without Board approval, the purpose of the inclusion of receipts and expenses in the consent agenda is to inform Members.

11. Business Items

i. **Administration**

a. **GSCA 2023 Priority Workplan**

The CAO, Tim Lanthier introduced the GSCA Strategic Plan, its relationship to the organization and to the departmental work plans. It was noted that the workplan does not represent the entirety of the work that staff are doing but rather those items that may be over and above the daily or regular tasks that staff undertake.

A Member asked with regard to the status of Low Impact Development (LID) standards and practices. Mr. Lanthier replied that staff does not do a lot of work around LIDs due to not having an engineer on staff. Staff have explored LIDs and encourage their use wherever possible. It was noted that in the end the decision lies with municipalities and not conservation authorities.

A Member noted that the workplan does not specify anything around seeking opportunities for generating revenue and asked if GSCA staff are considering any future revenue generating activities and/or services. Mr. Lanthier clarified that staff are actively seeking revenue generating items, however, the staff cannot commit to a specific dollar amount for the purposes of the workplan, making it difficult to measure.

Motion No.:
FA-23-014

Moved By: Tobin Day
Seconded By: Nadia Dubyk

WHEREAS the General Membership of the Authority has approved a Strategic Plan for the operations of the Authority;

AND WHEREAS The Chief Administrative Officer of the Authority is responsible for developing short and long-term goals of the Authority to support the Strategic Plan;

THAT the Grey Sauble Conservation Authority Board of Directors accept and approve the 2023 Priority Workplan as presented.

Carried

b. Draft 2023 Budget – For Approval

The CAO, Tim Lanthier, presented the 2023 draft budget to the Board. At the December 22nd, 2022, Board of Directors meeting, the Board received and reviewed the budget and gave direction for staff to circulate the draft budget for the minimum required 30 days along with an invitation for staff to visit councils for information presentations and to field questions. Mr. Lanthier spoke to those Municipal Councils that requested a presentation.

Mr. Lanthier explained that there would be four separate motions as required by the Conservation Authorities Act, the purpose of each of the four motions, and how the votes are weighted.

A Member asked with regard to why more Municipalities did not accept the invitations. Mr. Lanthier answered that it is not unusual for municipalities to not reach out for a presentation.

A Member asked if there was any feedback from the municipalities with regard to the budget and levy.

Mr. Lanthier answered that the Municipality of Arran-Elderslie and the Township of Chatsworth had both passed motions of support for the budget. Some members of The Town of the Blue Mountains council expressed concern over the portion that their municipality pays versus the other participating municipalities. Mr. Lanthier explained how the process of apportionment works based on modified current value assessments as laid out in the Conservation Authorities Act and provided to GSCA by the Ministry.

A Member noted that the current budget incorporates a higher percentage of user pay revenue versus levy.

A Member asked with regard to the voting procedure and if there would be a clearer method. Mr. Lanthier clarified that the Budget vote is the only item that uses this voting format.

Motion No.:
FA-23-014

Moved By: Jon Farmer
Seconded By: Jay Kirkland

WHEREAS the Conservation Authorities Act provides that an Authority shall have the power to determine the portion of total benefit afforded to each municipality in establishing the annual levy, the Grey Sauble Conservation Authority resolves as follows, subject to such regulations under the Act:

- i) That all participating municipalities be designated as benefiting for all projects included in the 2023 Operating Budget including administration and maintenance and the 2023 Capital Budget unless otherwise specified in the budget;**
 - ii) That the Authority's share of the cost of the program and projects included in the 2023 Budget shall be raised from all participating municipalities as part of the General Levy, unless otherwise specified in the Budget;**
 - iii) That the 2023 General Levy be apportioned to the participating municipalities in the proportion that the modified current value assessment of the whole is under the jurisdiction of the Authority, unless otherwise provided in the levy for a project;**
 - iv) That the appropriate Authority officials be directed to advise the participating municipalities pursuant to the Conservation Authorities Act and the regulations made thereunder; to levy the said municipalities the amount of General Levy set forth in the 2023 Operating Budget, to levy the said municipalities the amount of**
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the General Levy set forth in the 2023 Capital Budget and in the approved projects of the Authority, and any special levy attributable to any project which has been deemed to be of specific benefit to any particular municipality.

Carried

Motion No.:
FA-23-015

Moved By: Jon Farmer
Seconded By: Jennifer Shaw

THAT the Grey Sauble Conservation Authority adopt a matching levy for the year 2023 of \$37,056.00 as required by Ontario Regulations 139/96 and 231/97.

Carried

| Director | Yay | Nay | Absent |
|---------------|-----|-----|--------|
| Alex Maxwell | X | | |
| Jon Farmer | X | | |
| Robert Uhrig | X | | |
| Tobin Day | X | | |
| Jay Kirkland | X | | |
| Tony Bell | X | | |
| Nadia Dubyuk | X | | |
| Jennifer Shaw | X | | |
| Scott Mackey | X | | |
| Sue Carleton | X | | |
| Scott Greig | X | | |

Motion No.:
FA-23-016

Moved By: Scott Greig
Seconded By: Jay Kirkland

THAT the Grey Sauble Conservation Authority adopt a non-matching levy for the year 2023 of \$1,603,569.00 as required by Ontario Regulations 139/96 and 231/97.

Carried

| Director | Yay | Nay | Absent |
|---------------|-----|-----|--------|
| Alex Maxwell | X | | |
| Jon Farmer | X | | |
| Robert Uhrig | X | | |
| Tobin Day | X | | |
| Jay Kirkland | X | | |
| Tony Bell | X | | |
| Nadia Dubyuk | X | | |
| Jennifer Shaw | X | | |
| Scott Mackey | X | | |
| Sue Carleton | X | | |
| Scott Greig | X | | |

Motion No.:
FA-23-017

Moved By: **Scott Mackey**
Seconded By: **Nadia Dubyk**

THAT the Grey Sauble Conservation Authority adopt the budget as presented for the year 2023 in the amount of \$3,982,929.00.

Carried

| Director | Yay | Nay | Absent |
|-----------------|------------|------------|---------------|
| Alex Maxwell | X | | |
| Jon Farmer | X | | |
| Robert Uhrig | X | | |
| Tobin Day | X | | |
| Jay Kirkland | X | | |
| Tony Bell | X | | |
| Nadia Dubyuk | X | | |
| Jennifer Shaw | X | | |
| Scott Mackey | X | | |
| Sue Carleton | X | | |
| Scott Greig | X | | |

c. Q4 Investment Portfolio Update

The Manager of Financial and Human Resources, Alison Armstrong, gave a brief overview of the GSCA's investment history and strategy. It was noted that 2022 was a difficult year for GSCA's investment portfolio and marks only the second year that GSCA's portfolio had experienced a loss. The Portfolio Manager will be making a presentation to the Board within the second Quarter of the year.

A Member asked if any profit of investments have been budgeted for and ear marked for something. Alison answered that the proceeds of investment are not budgeted for and that GSCA's investments are reserve funds. Ms. Armstrong gave a brief overview of the reserve funds and their uses.

A Member questioned the fees of managing the portfolio and if the Board should reevaluate its investment strategy.

There was discussion around investment options, risks of moving investments, and process required to significantly change GSCA's investment strategy. It was stressed that 2022 was a difficult year for investments all around.

A Member asked if there was a timeline for when the Authority intends to access these funds? Ms. Armstrong answered that it would depend on the timeline of the building renovation. A portion of the investment funds are intended to be used for the renovation of the Administrative Center.

A Member asked what the rationale was for going to the private marketplace for revenue generation. A Member clarified that it had been a decision to have funds working to generate interest instead of sitting in a bank account doing nothing.

A Member asked if GSCA has an investment policy. Ms. Armstrong responded that GSCA does have an investment policy that is reviewed with the Investment Manager. Ms. Armstrong will make the policy available.

A Member asked if the investment strategy reflects the values, mission, and vision of the authority and what was the time horizon at the time at the time of purchase. Based on the investment survey, it was determined that GSCA was seeking long term investment options. Additionally, a portion of the initial amount was retained in a bank account for faster access if needed without drawing down the portfolio. In 2021, an additional \$200,000 was moved to the portfolio and 50% of the portfolio was redistributed to Environmental, Social and Governance (ESG) funds.

A Member asked how the Authority has budgeted to have the funds to be invested. Mr. Lanthier explained that in some cases, investments into the reserves had been budgeted for to cover future costs and repairs. In other cases, revenue and/or expenses differed from the budget and surplus has been set aside for future needs.

Motion No.:
FA-23-018

Moved By: Jon Farmer
Seconded By: Alex Maxwell

THAT the Grey Sauble Conservation Authority receive the Q4 Investment Update, as presented.

Carried

d. Q4 Budget and Reserves Report Back

The CAO spoke to the Q4 Budget wrap up and Reserves Continuity spreadsheet.

At the end of 2022 the budget as a whole was balanced. There were substantially less draw downs of reserves and more was transferred to reserves than budgeted. Mr. Lanthier outlined the proposed amounts that were moved into and out of reserve transfers.

A Member asked with regard to parking fees and where they go. Mr. Lanthier explained that they go into the Lands reserve used for Lands based assets and projects.

A Member asked if the funds raised at a specific property used for that specific property or do they get used for properties in general. Mr. Lanthier clarified that any funds raised at a specific property are used to support the general land base.

A Member asked how close GSCA is to meeting Asset Management Year 1 goals. It was noted that this may be necessary for future funding opportunities. Mr. Lanthier explained that the Asset Management plan was renewed in 2022 and a finance plan will be forthcoming.

A Member asked with regard to parking fees and if the previous Board was satisfied with the present parking fees. Mr. Lanthier clarified that GSCA has increased parking fees recently and that it was the Levy amount that has decreased.

Mr. Lanthier noted that due to staff's efforts in investigating visitor numbers and parking revenues, measures were put in place to increase parking compliance. These included increased staff presence at parks and a revamped Member's Pass program.

A Member asked if staff advertise passes for Holiday gifts. Staff responded that the Authority staff put out social media advertising in late October promoting the next year's pass.

Motion No.:
FA-23-019

Moved By: Jon Farmer
Seconded By: Tobin Day

WHEREAS the Board of Directors approved the GSCA 2022 Operating and Capital Budget on January 27, 2021, by motion FA-21-019,

AND WHEREAS, the 2022 Year-End actuals deviate from the approved budget,

THAT, the Board of Directors approve any previously unapproved transfers of funds to or from reserves or surplus as detailed in Report 003-2023.

Carried

ii. Water Management

Nothing at this time.

iii. Environmental Planning

Nothing at this time.

iv. Operations

Nothing at this time.

v. Conservation Lands

Nothing at this time.

vi. Forestry

a. Forestry Fee Schedule Update

The Forestry Coordinator, Mike Fry, presented the 2023 Forestry Fee Schedule. It was noted that, historically the Forestry Department has relied entirely on self-generated revenue, with any shortfall being covered by the Forestry Reserve. Staff review the forestry fee schedule annually, comparing to neighbouring conservation authorities, and with a focus on providing services at an affordable rate, while still covering costs. Mr. Fry explained briefly how the fee schedule works for larger properties.

A Member asked what the process is in selecting what trees are being planted. Mr. Fry explained that part of the equation is what is available from the nurseries.

A Member asked what the increase in fees will amount to in terms of revenue. Mr. Fry stated that for forest management, the increase in revenue will be nominal.

Motion No.:
FA-23-020

Moved By: Tony Bell
Seconded By: Nadia Dubyk

WHEREAS, the GSCA Forestry department provides forest management services to private landowners throughout GSCA's jurisdiction;

AND WHEREAS, the fee schedule is reviewed on an annual basis to ensure fees are consistent and appropriate;

THAT, the GSCA Board of Directors approve the updated Forestry Fee Schedule as presented in Appendix A and Appendix B.

Carried

b. Forestry Tender Results – Rocklyn Creek

Forestry Technician, Cam Bennett presented the results of the Rocklyn Creek Forestry Tender. Mr. Bennett gave a brief overview of the tender process.

Two bids were received with Tri-Bridges Firewood providing the highest bid.

Staff recommended awarding the tender to Tri-Bridges for their bid of \$18,860.00.

Motion No.:
FA-23-021

Moved By: Jon Farmer
Seconded By: Jennifer Shaw

WHEREAS Grey Sauble Conservation Authority (GSCA) owns and manages over 11,300 hectares (28,000 acres) of land comprised of 207 individual properties organized into 79 groupings;

AND WHEREAS, GSCA manages nearly 5,260 hectares (13,000 acres) of forested area to offset the operating expenses of the Forestry department and GSCA;

THAT the Grey Sauble Conservation Authority Board of Directors award the following forestry tender:

Plantation Thinning Harvest tender (GSC-23-01) for Rocklyn Creek Management Area – Compartments 136 and 137 – to Tri-Bridges Firewood for their total bid of \$18,860.00, subject to signing the agreement.

Carried

c. Forestry Tender Results – Rob Roy

Forestry Technician, Cam Bennett presented the results of the Rob Roy Forestry Tender. Two bids were received with Complete Woodlot Management providing the highest bid.

Staff recommended awarding the tender to Complete Woodlot Management for their bid of \$20,150.00.

A Member asked how often a bush would be harvested. Mr. Bennett answered that the forest management plan stipulates a 15-year cycle.

Motion No.:
FA-23-022

Moved By: Scott Mackey
Seconded By: Tony Bell

WHEREAS Grey Sauble Conservation Authority (GSCA) owns and manages over 11,300 hectares (28,000 acres) of land comprised of 207 individual properties organized into 79 groupings;

AND WHEREAS, GSCA manages nearly 5,260 hectares (13,000 acres) of forested area to offset the operating expenses of the Forestry department and GSCA;

THAT the Grey Sauble Conservation Authority Board of Directors award the following forestry tender:

Sawlog and Fuelwood tender (GSC-23-02) for Rob Roy Management Area – Compartment 85 – to Complete Woodlot Management for their total bid of \$20,150, subject to signing the agreement.

Carried

vii. Communications/Public Relations

Nothing at this time.

viii. Education

a. Day Camp Fee Update

Information Services Manager, Gloria Dangerfield, presented the recommended updates to GSCA Day Camp fees. Ms. Dangerfield gave a brief overview of GSCA's Day Camp and recent challenges in staffing. Staff have been investigating options to ensure that staffing needs can met while still providing a high level of service. Staff recommended reducing the maximum number of campers and increasing the weekly fee.

A Member asked if staff considered increasing the staff wages to attract more staff and be able to maintain camper maximum. Ms. Dangerfield explained that the wage had been increased in 2022 and GSCA still experienced difficulties in attracting and maintaining staff.

Staff are concerned about ensuring a safe experience for campers. Ideally, GSCA would hire a full-time education provider to be able to expand the camp.

A Member confirmed that there is a significant shortage of education staff.

A Member asked what the fee structure is based on, cost recovery or revenue generating. Ms. Dangerfield confirmed that the camp is based on a cost recovery basis.

A Member asked what the anticipated response would be if enrolment is down due to the increase in fees. Ms. Dangerfield noted that the minimum necessary would be 16 campers per week.

A Member asked if the GSCA has tried to partner with Non-profits that help subsidize camper fees. Staff have been actively seeking partners and grants, however; not necessarily those that specifically subsize camp fees.

Motion No.:
FA-23-023

Moved By: Tony Bell
Seconded By: Jennifer Shaw

WHEREAS GSCA staff have deemed the hiring of three, instead of the previous four staff, for day camp to be more achievable in 2023 given the current hiring crisis. Given the appropriate staff to camper ratio, the number of campers would be limited to twenty per week.

AND FURTHER WHEREAS, GSCA's goal of running a high-quality camp with programming that offers an immersive, educational experience can be better achieved by limiting camper numbers to a manageable number.

AND FURTHER WHEREAS, running camp with limited numbers requires an increase in fees to cover costs.

THAT, the GSCA Board of Directors agree to changing the weekly camp fee to \$285 per week.

Carried

ix. **GIS/IT**
Nothing at this time.

x. **DWSP**
Nothing at this time.

12. **New Business**

Nothing at this time.

13. **CAO's Report**

The CAO, Tim Lanthier, welcomed all Member's to the Board. Expressed thanks to the staff for their work in 2022 and 2023. Mr. Lanthier extended thanks to past Chair Greig and past Vice Chair Matrosovs for their support and guidance in 2022.

Mr. Lanthier noted that Bill 23 and the recent changes to the CAA have challenged staff in the start of the year. The Planning team have been working with member municipalities and counties to discuss solutions with regards to the added burdens placed on them. Mr. Lanthier extended his thanks to MacLean Plewes and his team for the work that they have been doing.

Mr. Lanthier attended the AGMs of Nottawasaga Valley CA and Saugeen Valley CA. Mr. Lanthier informed the Board of the NVCA and SVCA Board appointments.

Mr. Lanthier made Budget Presentations to the Town of The Blue Mountains and the Municipality of Arran-Elderslie. Additionally, Mr. Lanthier will be attending municipal councils to discuss GSCA's Programs and Services Inventory and the need for Category 3 agreements.

Mr. Lanthier spoke to the recent passing of Elwood Moore, his work in the community and with the Authority.

14. **Chair's Report**

Chair Carleton had nothing to report for this meeting.

15. **Other Business**

Nothing at this time.

16. **Resolution to Move into Closed Session**

Motion No.:
FA-23-024

Moved By: Scott Greig
Seconded By: Jennifer Shaw

THAT the Grey Sauble Conservation Authority Board of Directors proceed into closed session at 4:06 pm to discuss matters related to the following:

- i. **Minutes of the Closed Session of the Regular Board of Directors meeting held on December 21, 2022; and,**
 - ii. **2023 CAO Performance Plan – closed as it relates to personal matters about an identifiable individual including Authority directors or Authority employees (GSCA Administrative By-Law, Section 4 (xvii)(b));**
-

AND FURTHER THAT CAO, Tim Lanthier, and Administrative Assistant, Valerie Coleman will be present.

Carried

17. **Resolution that the Board of Directors has resumed Open Session**

Motion No.:
FA-23-025

Moved By: Scott Greig
Seconded By: Jon Farmer

THAT the Grey Sauble Conservation Authority Board of Directors resume open session.

Carried

18. **Resolution Approving the Closed Session Minutes**

Motion No.:
FA-23-026

Moved By: Jennifer Shaw
Seconded By: Scott Mackey

THAT the Grey Sauble Conservation Authority Board of Directors approve the December 21, 2022, Closed Session, presented in the closed session agenda.

Carried

19. **Reporting out of Closed Session**

The Board reviewed and approved both the Closed Session minutes of December 21, 2023.

20. **Next Full Authority Meeting**

Wednesday March 22, 2022

21. **Adjournment**

The meeting was adjourned at 4:35 p.m.

Motion No.:
FA-23-027

Moved By: Jay Kirkland
Seconded By: Scott Greig

THAT this meeting now adjourn.

Carried

Sue Carleton, Chair

Valerie Coleman
Administrative Assistant



Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-029

MOVED BY: _____

SECONDED BY: _____

THAT the Grey Sauble Conservation Authority Board of Directors approve the Full Authority minutes of February 22, 2023.

Permits Issued from February 1, 2023 to February 28, 2023

| Permit #: | Date Applied: | Date Issued: | Lot: | Conc: | Municipality: | Former Municipality: |
|-----------------|---------------|--------------|---|-------|----------------------------|----------------------|
| 22452 | 07-Dec-22 | 02-Feb-23 | | | Municipality of Meaford | Sydenham Township |
| Approved works: | | | Residential Home & Septic | | | |
| | | | Project Location: 136 Ugovsek Crescent | | | |
| | | | <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | | |
| | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Olivia Sroka | | | |
| 23026 | 15-Jan-23 | 02-Feb-23 | | | Municipality of Meaford | Sydenham Township |
| Approved works: | | | Construction of a greenhouse and addition to house | | | |
| | | | Project Location: 597535 COUNTY ROAD 29 | | | |
| | | | <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | | |
| | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input type="checkbox"/> fill Olivia Sroka | | | |
| 22457 | 13-Dec-22 | 07-Feb-23 | Lot 69 | | Town of the Blue Mountains | Collingwood Township |
| Approved works: | | | Grading and alterations associated with the construction of a dwelling. | | | |
| | | | Project Location: 118 Schooners Lane | | | |
| | | | <input type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | | |
| | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | | | |
| 22289 | 14-Jul-22 | 07-Feb-23 | | | Town of the Blue Mountains | Thornbury |
| Approved works: | | | Deck additions and second floor balcony. | | | |
| | | | Project Location: 108 Collens Court | | | |
| | | | <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | | |
| | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input type="checkbox"/> fill Chris Scholz | | | |
| 22430 | 14-Nov-22 | 07-Feb-23 | 72 | | Town of the Blue Mountains | Collingwood Township |
| Approved works: | | | Grading and alterations associated with the construction of a dwelling. | | | |
| | | | Project Location: 124 Schooners Lane | | | |
| | | | <input type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | | |
| | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | | | |
| 22434 | 22-Nov-22 | 07-Feb-23 | 71 | | Town of the Blue Mountains | Collingwood Township |
| Approved works: | | | Grading and alterations associated with the construction of a dwelling. | | | |
| | | | Project Location: 122 Schooners Lane | | | |
| | | | <input type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | | |
| | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | | | |

| Permit #: | Date Applied: | Date Issued: | Lot: | Conc: | Municipality: | Former Municipality: |
|-----------------|---------------|--------------|--|-------|--|----------------------|
| 22382 | 28-Aug-22 | 08-Feb-23 | | | Municipality of Meaford | St Vincent Township |
| Approved works: | | | Dwelling addition and new filter bed for septic system. | | Project Location: 173 Lakeshore Road <input type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: <input checked="" type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | |
| 23001 | 22-Dec-22 | 09-Feb-23 | | | Town of the Blue Mountains | Collingwood Township |
| Approved works: | | | Demolition of existing dwelling and construction of single-family dwelling with a crawl space and attached garage. | | Project Location: 187 Lakewood Drive <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input type="checkbox"/> fill Chris Scholz | |
| 22311 | 14-Jul-22 | 13-Feb-23 | Pt lot 25 | 12 | Township of Georgian Bluffs | Keppel Township |
| Approved works: | | | Residential dwelling and septic system. | | Project Location: CON 12 S PT LOT 25 <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | |
| 22453 | 14-Jul-22 | 14-Feb-23 | 13 | | Town of the Blue Mountains | Collingwood Township |
| Approved works: | | | Construction of a garage and loft. | | Project Location: 129 Cameron Street <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | |
| 23008 | 15-Jan-23 | 16-Feb-23 | 1636-163 | | Municipality of Meaford | Town of Meaford |
| Approved works: | | | Removal of fill stockpiled within Regulated Area and installation of septic system | | Project Location: <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Olivia Sroka | |
| 23009 | 11-Jan-23 | 16-Feb-23 | | | Town of South Bruce Peninsula | Wiarton |
| Approved works: | | | Demolition of existing deck and replacement with partially covered deck | | Project Location: 623 Centennial Crescent <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: <input checked="" type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input type="checkbox"/> fill Jake Bousfield-Baste | |

| Permit #: | Date Applied: | Date Issued: | Lot: | Conc: | Municipality: | Former Municipality: |
|-----------------|---------------|--|-----------|--|--------------------------------|----------------------|
| 22439 | 24-Nov-22 | 22-Feb-23 | PT LOT 2 | CONC 5 N | Municipality of Grey Highlands | Euphrasia Township |
| Approved works: | | Single family dwelling, accessory structure, septic system, pond, and associated site alterations. | | Project Location: 726140 Sideroad 22B | | |
| | | | | <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | |
| | | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | | |
| 22450 | 24-Nov-22 | 23-Feb-23 | PT LT 13 | 6 | Municipality of Grey Highlands | Euphrasia Township |
| Approved works: | | Site alterations and grading associated with a driveway. | | Project Location: 606027 Sideroad 13A | | |
| | | | | <input type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | |
| | | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | | |
| 22226 | 28-May-22 | 23-Feb-23 | PT LOT 4 | CON 12 | Town of the Blue Mountains | Collingwood Township |
| Approved works: | | Decommissioning of existing septic, installation of new septic, addition, deck and in-ground pool | | Project Location: 157 39th Sideroad Thornbury, ON | | |
| | | | | <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | |
| | | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Jake Bousfield-Baste | | |
| GS23-028 | 06-Feb-23 | 27-Feb-23 | | | Town of the Blue Mountains | Collingwood Township |
| Approved works: | | Construction of a dwelling addition, pool, septic system, and associated site alterations. | | Project Location: 166 Marsh Street | | |
| | | | | <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | |
| | | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input checked="" type="checkbox"/> fill Chris Scholz | | |
| 23007 | 12-Jan-23 | 27-Feb-23 | Lot 5 and | Highway 21 | Township of Georgian Bluffs | Keppel Township |
| Approved works: | | Construction of a horse arena | | Project Location: 202045 Highway 21 | | |
| | | | | <input checked="" type="checkbox"/> construct <input type="checkbox"/> alter watercourse <input type="checkbox"/> shoreline Reviewed by: | | |
| | | | | <input type="checkbox"/> alter structure <input type="checkbox"/> alter wetland <input type="checkbox"/> fill Olivia Sroka | | |

**Grey Sauble Conservation Authority
Receipt Report
February 1st - 28th, 2023**

| | | |
|------------------------|----|-----------|
| Regulation Permits | \$ | 6,555.00 |
| Planning | \$ | 19,607.00 |
| Land Use Agreements | \$ | 1,785.40 |
| Season Passes | \$ | 4,195.00 |
| Grey County | \$ | 75,006.22 |
| Forestry | \$ | 1,158.25 |
| Timber Sales | \$ | 3,901.00 |
| RMO | \$ | 37,800.00 |
| General GSCA Donations | \$ | 872.83 |
| HST Return | \$ | 6,438.25 |
| BRWI | \$ | 7,500.00 |
| Arboretum Alliance | \$ | 200.00 |

| | | |
|-------------------------------|-----------|-------------------|
| Total Monthly Receipts | \$ | 165,018.95 |
|-------------------------------|-----------|-------------------|

Grey Sauble Conservation Authority
Expense Report
February 1st to 28th, 2023

| | | | | |
|-------|--|----|------------|---------------------------------|
| 12073 | Journey Electric | \$ | 1,391.60 | WECI Project |
| 12074 | Bell Canada | \$ | 87.12 | Tara Stream Gauge Service |
| 12075 | Township of Chatsworth | \$ | 1,391.58 | Property Tax |
| 12076 | City of Owen Sound | \$ | 149.97 | Property Tax |
| 12077 | Coates & Best Ltd. | \$ | 62.91 | Office Supplies |
| 12078 | Sunbelt Rentals | \$ | 179.67 | Safety Salt |
| 12079 | Staples Advantage | \$ | 205.93 | Office Supplies |
| 12080 | Directdial | \$ | 229.39 | Laptop Docking Station |
| 12081 | Township of Georgian Bluffs | \$ | 3,993.00 | Property Tax |
| 12082 | Georgian Tree Service | \$ | 678.00 | Tree Removal |
| 12083 | Ideal Supply Inc | \$ | 282.73 | Administration Centre Lights |
| 12084 | ImageWraps | \$ | 204.82 | Vehicle Graphics |
| 12085 | Kilsyth Auto Service Ltd. | \$ | 528.21 | Vehicle Repair and Maintenance |
| 12086 | MacDonnell Fuels | \$ | 1,452.39 | Furnace Fuel |
| 12087 | Municipality of Meaford | \$ | 4,815.54 | Property Tax & Water Charges |
| 12088 | Middlebro & Stevens LLP | \$ | 849.76 | Lands Legal Fees |
| 12089 | Scott's Industrial & Farm Supplies | \$ | 81.30 | Clendenan Dam Supplies |
| 12090 | Woods, Clemens, Fletcher & Cronin Prof. Corp. | \$ | 230.00 | Planning Fee Refund |
| 12091 | Rogers Wireless | \$ | 202.52 | Monthly Cell Phone Service |
| | Mastercard Payments | \$ | 7,859.93 | See Summary Below |
| | Amilia | \$ | 158.18 | |
| | O-KAY Cleaning | \$ | 988.75 | |
| | Pickfield Law Prof. Corp | \$ | 3,005.80 | Legal Fees |
| | Miller Waste Systems Inc. | \$ | 105.40 | Tipping Fees and Garbage Rental |
| | Square Fees | \$ | 242.46 | |
| | Hydro, Reliance | \$ | 3,129.78 | |
| | Receiver General, EHT, WSIB | \$ | 51,874.50 | |
| | Group Health Benefits | \$ | 11,352.55 | |
| | OMERS | \$ | 27,330.12 | |
| | Monthly Payroll | \$ | 100,044.02 | |

| | |
|-------------------------------|----------------------|
| Total Monthly Expenses | \$ 223,107.92 |
|-------------------------------|----------------------|

Mastercard Summary

| | | |
|------------------------------------|-----------|-----------------|
| Building Services | \$ | 877.27 |
| SOCET Maintenance | \$ | 3,249.77 |
| Flood Forecasting | \$ | 2,129.75 |
| Shop Supplies | \$ | 394.81 |
| Land Policy | \$ | 745.03 |
| Communications | \$ | 463.30 |
| Monthly Mastercard Payments | \$ | 7,859.93 |



GREY SAUBLE CONSERVATION FOUNDATION MINUTES

Foundation Board of Directors

Wednesday, January 18, 2023, at 10:00 a.m.

1. Call to Order

Vice Chair Al Wilcox called the meeting to order at 10:04

Members Present: Don Sankey (Chair) - via Teams, Al Wilcox (Vice-Chair), Dick Hibma (Treasurer), Scott Greig (GSCA Board Representative), Bill Law, Nancy McGee, Nancy Brown, Serenity Morton, Valerie Coleman

Regrets: Marg Gaviller, Anne Stephens

2. Introduction of Guests

Bill Law introduced Lauren Donkersgoed (Ruth). Lauren is interested in joining the Foundation Board. Introduced herself. Works at UTS Consultants.
Board Members introduced themselves.

3. Adoption of Agenda

Moved By: Dick Hibma
Seconded By: Bill Law

“THAT the agenda of the Grey Sauble Conservation Foundation meeting dated January 18, 2023 be approved.”

Carried

4. Approval of Minutes of Board Meeting – November & December 7, 2022

Moved By: Dick Hibma
Seconded By: Nancy McGee

“THAT the minutes of the Grey Sauble Conservation Foundation meeting dated December 7, 2022, be approved as presented.”

Carried

5. Business Arising from Minutes

None at this time.

6. Team Reports

a. Finance/Administration/Financial Statements

Treasurer, Dick Hibma presented the Finance Committee report for November and December.

By-Law # 1 was reviewed and discussed.

Members discussed a trial subscription to Grant Advance for 1 year. Nancy McGee mentioned that one other subscription service was reviewed but that it did not appear to be as thorough as Grant Advance. Al commented that it will be essential to make use of the program and dedicate time to utilizing the service.

Dick spoke to the Community Service Recovery Grant Application. It was noted that there would be the potential to hire a staff member to provide support, fundraising, and recruitment for the Foundation. Discussion around approaching the indigenous communities about hiring an indigenous community member.

Concern raised over the alignment of this grant application with GSCA projects. Serenity commented on GSCA's goal of strengthening relationships with indigenous communities. It was suggested to delay until the November intake.

Discussion was had around the time commitment necessary to pursue grants. It was suggested that a grant committee be struck to be able to respond to grants quickly and liaise with GSCA staff.

The suggestion was made to prepare the application and decide to submit it later.

2023 Draft Budget discussion.

Moved By: Dick Hibma
Seconded By: Scott Greig

“THAT the GSCF Board approve the Financial Reports for November and December 2022, as presented.”

Carried

Moved By: Dick Hibma
Seconded By: Bill Law

“THAT the GSCF Board approve a 1-year subscription with Grant Advance at an anticipated cost of \$2254.35 (tax included) with this cost included in the 2023 budget.”

Carried

Moved By: Dick Hibma
Seconded By: Nancy McKee

“THAT the GSCF Board approve the preparation of an application for grant funding to the Federal Community Services Recovery Fund.”

Carried

Moved By: Dick Hibma
Seconded By: Scott Greig

“THAT the GSCF Board approve the Finance and Administration Committee report for December and January as presented.”

Carried

Moved By: Dick Hibma
Seconded By: Nancy McGee

“THAT the GSCF Board approve the January version 2023 draft budget as presented.”

Carried

b. Memorial Forest

Don spoke to the Memorial Forest program. It was noted that the ceremony would be held on Sunday June 11th. It would be ideal for plans to be finalized by March. With assistance from Nancy Brown the commemorative tree species will be selected.

Don will be working with Mike regarding trees and planting. Volunteers are welcome.

With assistance from GSCA staff, there will be a press release to promote the ceremony.

Discussion around changing the intake dates for Memorial Forest purchases. Dick commented that from a finance perspective the intake dates do not present an impact. Serenity commented that the misalignment with the financial year causes more work. Staff recommendation was that changes be rolled on starting April 1st, 2023. Making the 2024 planting year April 1, 2023 to December 31, 2023 and the 2025 planting year January 1, 2024 to December 31, 2024.

To be discussed as a subsequent meeting.

c. Film Festival

Don spoke to the 2023 Film Festival. The film has been selected, Antarctica from Above. A package will be sent to schools with information on the Earth Day Film Festival and the Earth Day Bruce Calvert Hike.

There will be an evening performance for 2023.

Communications with sponsors has begun.

d. **Arboretum**

Nancy spoke to the signage project under the TD Environment Fund. The IFAA has opted to use Sign Street as the provider of the signs. The IFAA is targeting completion in June, prior to the Memorial Forest Ceremony.

It was noted that four trees require replacement.

7. **Acceptance of Committee Reports**

Moved By: Bill Law
Seconded By: Scott Greig

“THAT the reports of the Finance and Administration Committee, Memorial Forest Committee, and the Earth Film Festival Committees presented at the January 18th, 2023, meeting of the GSCF Board of Directors be received and the items contained therein be approved.”

Carried

8. **Grey Sauble CA Updates**

Serenity

Annual tree sale looks to be moving forward. May be an opportunity to coordinate some fundraising on the day of.

Staff have been receiving quotes for work on the boardwalk that is to be completed in the fall of 2023.

Staff are working on conducting some volunteer training (safety, conduct).

Audit and review dates to be set.

Potential partnership with a trail race organizer that will be in support of the CA.

9. **New Business**

GSCA parking passes – Valerie will make available at end of meeting.

Connections document – with Vicki's help the newest edition of the Connections document has been created.

Work plans – Nancy McGee proposed a working meeting to set the Foundation Work Plan for 2023. To include event dates, meeting dates, needs of GSCA staff.

10. **Correspondence** – Nothing at this time.

11. **Next Board Meeting**

February 23, 2023 @ 10:00 a.m.

12. **Adjournment**

The meeting was adjourned at 12:05 p.m.



MEDIA RELEASES AND ARTICLES

ATTACHMENT # 5

CKNX News Today

March 6, 2023

"Lake Huron Forever supports four Ontario projects"

<https://blackburnnews.com/midwestern-ontario/midwestern-ontario-news/2023/03/06/lake-huron-forever-supports-four-ontario-projects/>

Collingwood Today

March 5, 2023

"Grey County preparing tourism strategy for Beaver Valley"

<https://www.collingwoodtoday.ca/the-blue-mountains-and-grey-highlands/grey-county-preparing-tourism-strategy-for-beaver-valley-6645064>

Collingwood Today

March 3, 2023

"Grey Sauble Conservation Authority board elects new leaders"

<https://www.collingwoodtoday.ca/the-blue-mountains-and-grey-highlands/grey-sauble-conservation-authority-board-elects-new-leaders-6623141>



Grey Sauble Authority Board of Directors

M O T I O N

DATE: **March 22, 2023**

MOTION #: **FA-23-030**

MOVED BY: _____

SECONDED BY: _____

THAT in consideration of the Consent Agenda Items listed on the March 22, 2023, agenda, the Grey Sauble Conservation Authority Board of Directors receives the following items: (i) Environmental Planning – Section 28 Permits – February 2023; (ii) Administration – Receipts & Expenses – February 2023; (v) Minutes – GSC Foundation – January 18, 2023; (vi) Recent Media Articles



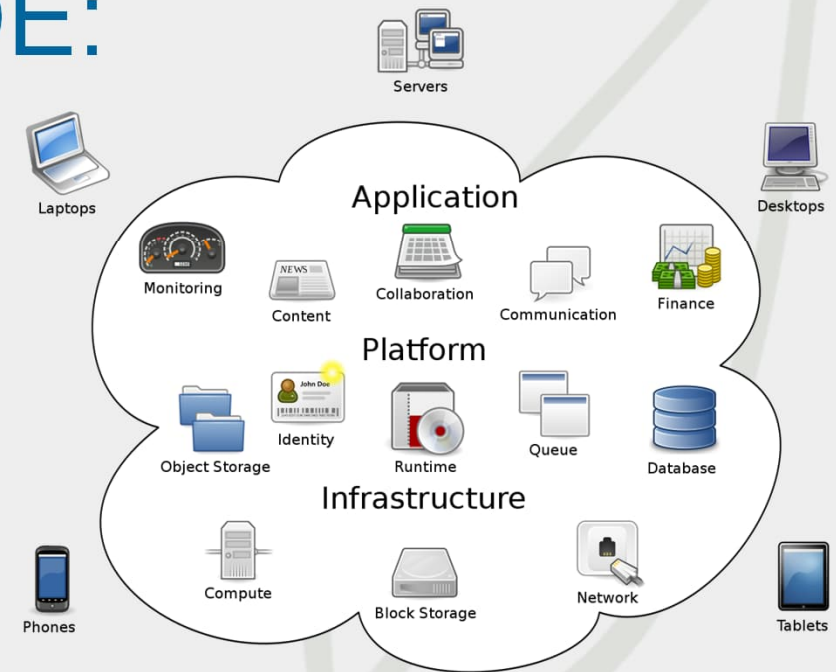
INFORMATION MANAGEMENT & TECHNOLOGY POLICY

GSCA Information Services



IT/IM ASSETS INCLUDE:

- Computers & Mobile Devices
- Computer Logins & Accounts
- Printers & Scanners (other peripheral devices)
- Networks & Infrastructure
- Third-Party Software
- In-House Developed Applications
- Local & Cloud-Based Storage Systems
- Physical & Virtual Servers
- Emails & Applications
- Web collaboration and sharing platforms (ex. SharePoint sites)



INNAPPROPRIATE USE LEADS TO RISK



Data Loss



Data Exposure



Liability



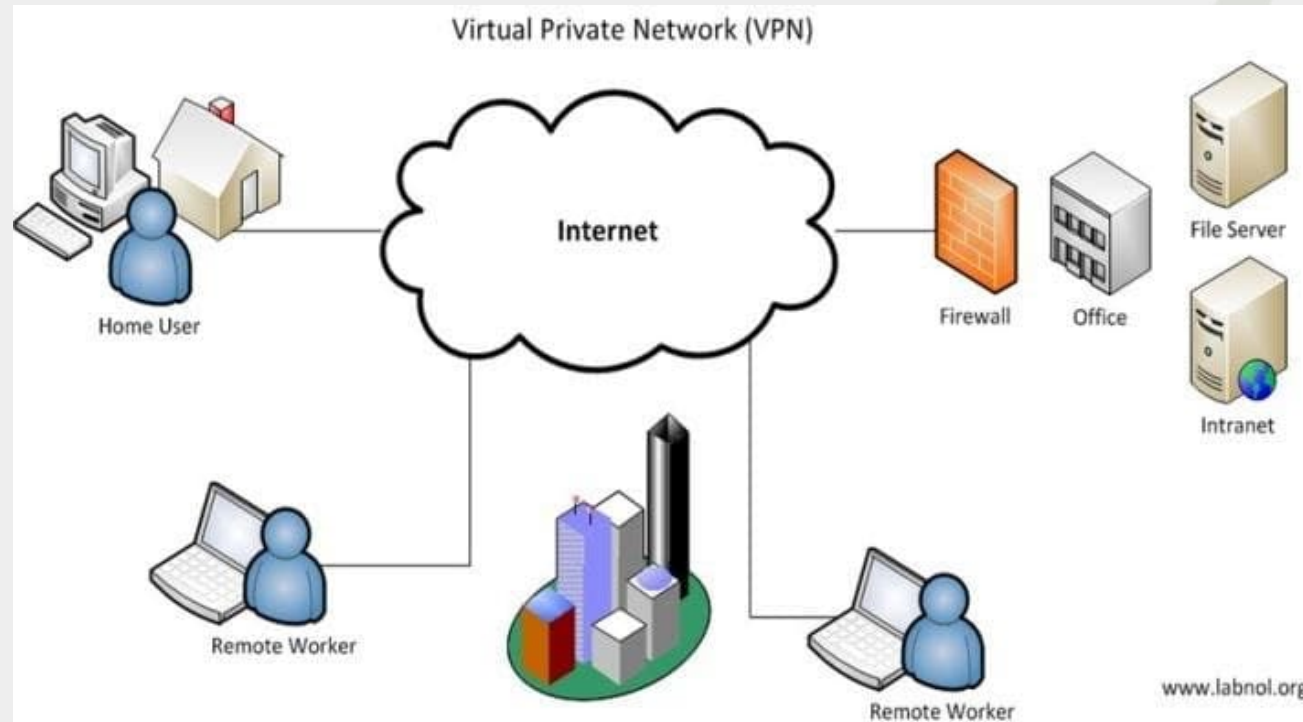
Equipment Damage



Malware



This policy seeks to balance benefitting fully from information technology with our need for a secure, consistent, cost-effective and robust IT infrastructure.



THIS POLICY APPLIES TO:

- STAFF
- DIRECTORS
- VOLUNTEERS
- GUESTS WHO USE OUR SYSTEMS



USE & ACQUISITION KEY POINTS

- Asset budget & renewals are guided by Asset Management Plan
- Non-capital requests planned for through consultation with staff before budget
- Acquisition follows Procurement Policy
- Booking
- Standards of care and reporting for any issues with equipment



PRIVACY

- Protection of client, employee and authority information is a primary goal.
- Bound by MFIPPA (right of access to info. And protection of privacy)



RSO 1990, c M.56 | Municipal Freedom of Information and
Protection of Privacy Act | CanLII

SECURITY & DATA INTEGRITY

- Physical Security: controlling access to hardware.
- Logical Security: controlling to digital systems including data, applications and account information.
- Both outlined in Appendix A1



SECURITY & DATA INTEGRITY

- Logical Security Features in place include:
 - Robust Passwords with MFA
 - Restricted access to networks
 - Firewall with VPN for remote access
 - Granular User Permissions
 - Approved Application Installation & Use
 - Microsoft Cloud Email Hosting
 - Reliable creation, storage, retrieval
 - Backups & restores

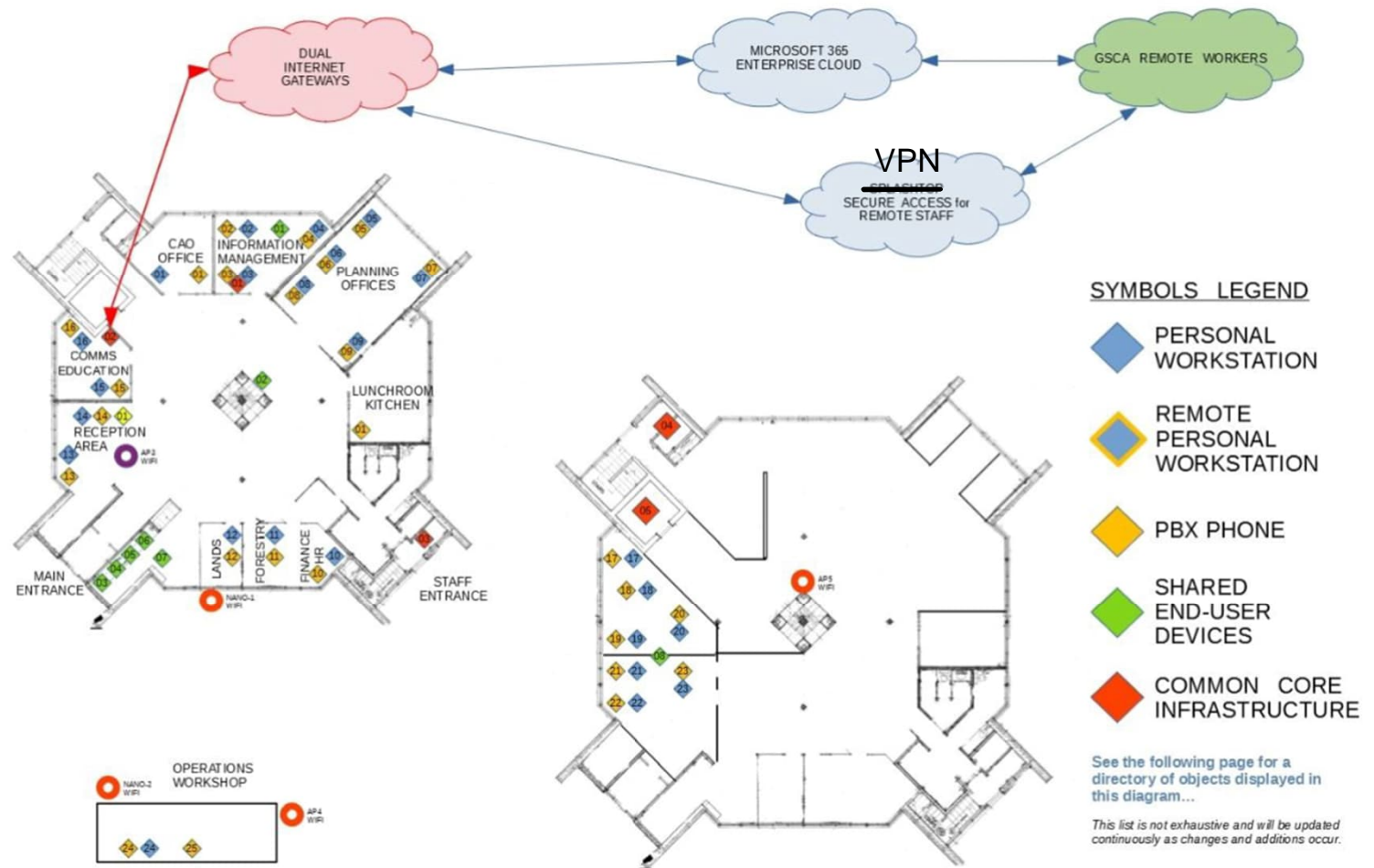


SECURITY & DATA INTEGRITY

- Features in place include:
 - Standards of use for
 - Email & Web Use – [Appendix A2](#)
 - Personal Devices – [Appendix A3](#)
 - 3rd Party Software – [Appendix A4](#)
 - Startup & Shutdown – [Appendix A5](#)
 - Staff Training



NETWORK DIAGRAM





THANK YOU!



STAFF REPORT

Report To: Board of Directors
Report From: Michael Fry, Forestry Coordinator
Meeting Date: March 22, 2023
Report Code: 008-2023
Subject: Update to GSCA Agricultural Advisory Committee Terms of Reference

Recommendation:

Motion 1:

WHEREAS GSCA established an Agricultural Advisory Committee in 2021 (FA-21-048);

AND WHEREAS, the GSCA Board of Directors approved updates to the Terms of Reference of the Agricultural Advisory Committee (FA-22-021);

AND WHEREAS, at the February 2023 Board of Directors meeting, Board Members requested an amendment to the composition of the committee membership;

THAT, the GSCA Board of Directors approve the updated Terms of Reference for the Agricultural Advisory Committee as presented in Appendix A;

Motion 2:

WHEREAS GSCA maintains an Agricultural Advisory Committee composed of members of the Agricultural community and members of GSCA's Board of Directors;

THAT, the GSCA Board of Directors appoint Member Scott Mackey and Member Jennifer Shaw to Agricultural Advisory Committee for the 2023 operating year.

Strategic Initiative:

This item relates to the Strategic Plan goal to ‘Strengthen and Enhance Environmental Education and Communication’.

Background / Discussion:

GSCA established an Agricultural Advisory Committee in 2022 with the purpose to:

- Improve communications with a diverse agricultural community through information sharing, advocacy, and education.
- Identify initiatives and projects that impact the agricultural community and discuss pros and cons of these projects.
- Provide an opportunity for input and recommendations on matters considered relevant to the agricultural community including but not limited to, stewardship programs, land programs, regulation policies, and plan review policies.
- Identify areas of common interest/issues and/or concerns as they relate to the agricultural community (externally).
- Act as a discussion group to bring forward communication to the GSCA Board of Directors.

The original composition of the Committee included:

- 1 representative from the Bruce County Ontario Federation of Agriculture
- 1 representative from the Grey County Ontario Federation of Agriculture
- 1 representative from the Christian Farmers Federation of Ontario
- 1 representative from the National Farmers Union
- 1 additional representative from the Agricultural community
- 2 members from GSCA’s General Member (members of GSCA’s Board of Directors).

At the February 2023 Board of Directors meeting, members requested an amendment to the Terms of Reference to allow for additional members to participate on the Agricultural Advisory Committee. The recommendation was to modify the number of members of GSCA’s General Membership from two (2) members to up to four members. Appendix A, page 4 shows this change (highlighted in yellow).

Financial / Budget Implications:

The financial implications of this proposed change are up to an additional \$105 per meeting (2 members * \$52.50 per half day meeting) plus mileage (\$0.50/km).

If all four (4) members were to claim a half day per diem reimbursement for each meeting, the cost would be \$210 plus mileage. This assumes two things. First, all members will claim the per diem rate and second that the members' respective municipalities do not pay these.

Communication Strategy:

Once approved, the members of the Agricultural Advisory Committee will be informed about the updates.

Consultation:

CAO

Appendix:

GSCA Agricultural Advisory Committee Terms of Reference



GSCA Agricultural Advisory Committee

Terms of Reference

Version 1.1

Date Approved: 24-March-2021

Date Revised: 22-March-2023



PROTECT. RESPECT. CONNECT.

237897 Inglis Falls Road, Owen Sound ON, N4K 5N6

519-376-3076

www.greysauble.on.ca

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Mission / Purpose

The Committee's purpose is to act as a voice of the agricultural community at Grey Sauble Conservation Authority (GSCA) and to coordinate communication between agricultural organizations within the GSCA watersheds. The Committee will identify opportunities related to the agricultural community and provide feedback to the Board of Directors from the community.

The purpose of the Agricultural Advisory Committee is to:

- Improve communications with a diverse agricultural community through information sharing, advocacy and education.
- Identify initiatives and projects that impact the agricultural community and discuss pros and cons of these projects.
- Provide an opportunity for input and recommendations on matters considered relevant to the agricultural community including but not limited to: stewardship programs, land programs, regulation policies, and plan review policies.
- Identify areas of common interest/issues and/or concerns as they relate to the agricultural community (externally).
- Act as a discussion group to bring forward communication to the GSCA Board of Directors.

Authority to Establish Committee

Conservation Authorities Act

Section 18(2) of the Conservation Authorities Act (CAA) states, *"an authority shall establish such advisory boards as may be required by regulation and may establish such other advisory boards as it considers appropriate. 2017, c. 23, Sched. 4, s. 15"*.

Section 18(3) of the CAA states, *"an advisory board shall comply with any requirements that may be prescribed by regulation with respect to its composition, functions, powers, duties, activities and procedures. 2017, c. 23, Sched. 4, s. 15"*.

Section 19.1(1) of the CAA states, *"an authority may make by-laws,*

- (a) respecting the meetings to be held by the authority, including providing for the calling of the meetings and the procedures to be followed at meetings, specifying which meetings, if any, may be closed to the public;*
- (e) providing for the composition of its executive committee and for the establishment of other committees that it considers advisable and respecting any other matters relating to its governance"*.

Grey Sauble Conservation Authority Administrative By-Law

Section 17 of the GSCA Administrative By-Law states, *"in accordance with Section 18(2) of the Act the Authority shall establish such advisory boards and committees as required by regulation and may establish such other advisory boards or committees as it considers appropriate to study and report on specific matters. The General Membership shall approve the terms of reference for all such advisory boards and committees, which shall include the role, the frequency of meetings and the number of members required. Resolutions and policies governing the operation of the Authority shall be observed in all advisory board and committee meetings. Each advisory board or committee shall report to the General Membership, presenting any recommendations made by the advisory board*

Grey Sauble Conservation Authority – Agricultural Advisory Committee – Terms of Reference

or committee. The dates of all advisory board and committee meetings shall be made available to all Members of the Authority.”

Composition

The Agricultural Advisory Committee shall be composed generally of 5 members, who live, farm, work or represent an agricultural organization within the GSCA watershed. GSCA will appoint all committee members. It will be the responsibility of the individual organizations to recommend annually in writing their representatives, by Jan. 20th to the GSCA Chief Administrative Officer/Secretary-Treasurer. An invitation for membership would be sent to the following organizations:

Ontario Federation of Agriculture:

- 1 representative from Bruce County Federation of Agriculture
- 1 representative from Grey County Federation of Agriculture

Other Agricultural Groups:

- 1 representative from the Christian Farmers Federation of Ontario (CFFO)
- 1 representative from the National Farmers Union (NFU)
- 1 additional representative from the Agricultural Community (selected annually by the Advisory Committee through an open/by invitation selection process)

If Federations, CFFO, or NFU do not fulfil their allowed number of representatives the Committee may recommend appointees from other agricultural community groups for appointment by GSCA.

GSCA Authority Representatives:

Up to 4 members from the General Membership of the Authority.

GSCA Staff Resources:

Depending on the topics to be discussed, any of the following GSCA Managers/Coordinators could take the meeting lead:

- Chief Administrative Officer;
- Manager of Conservation Lands;
- Forestry Coordinator;
- Water Resources Coordinator;
- Environmental Planning Coordinator; or
- Drinking Water Source Protection Project Manager.

A current municipal member of the GSCA Board of Directors may not sit on this Committee as a member of another organization.

Meetings

The Committee will meet up to 4 times per year subject to agenda content and need. Additional meetings will be at the call of the Chair if required for timely matters.

The Committee will set the meeting schedule annually at the first meeting of the year.

Meetings will generally be held during regular business hours at the GSCA Administration Office (237897 Inglis Falls Road, Owen Sound, Ontario) at the call of the Committee Chair.

Notwithstanding the foregoing, meetings may be held in a virtual forum by either majority approval of the Committee or due to pandemic related health and safety concerns.

Committee Chair and Vice Chair

If the Minister of the Ministry of the Environment, Conservation and Parks (MECP) has designated an agricultural representative to the GSCA Board of Directors as per Section 14(4) of the Conservation Authorities Act, this member shall be the Chair of the Agricultural Committee. The Committee will elect a Vice Chair from its membership annually at the first meeting of the year.

If the Minister of MECP has not designated an agricultural representative as per Section 14(4) of the Conservation Authorities Act, the Committee will elect a Chair and Vice Chair from its membership annually at the first meeting of the year.

Procedural Rules

The Committee shall be subject to all policies and clauses of the GSCA Administrative By-Laws. In the case where these by-laws are silent, Roberts Rules of Order will take precedent.

Quorum is more than 50% of the membership of the Committee, and never less than four (4) members. Members shall not be represented by proxy.

The agenda will be developed by GSCA staff with input from the Committee chair.

Committee members do not have the authority to specifically direct the activities of GSCA staff and will communicate through the GSCA Chief Administrative Officer/Secretary-Treasurer. The Committee may make recommendations to the GSCA Board of Directors.

The Terms of Reference will be reviewed on an annual basis by the Committee. Any recommended changes must be approved by the Full Authority Board of Directors.

Decision Making

This Committee does not have decision making power over the Authority or the Staff of the Authority. However, the Committee may make decisions on recommendations to the Authority. Consensus based decisions will be encouraged for all matters, however if required, normal simple majority rules will be implemented. Each committee member shall have full voting rights and be entitled to one vote per member. Members must be present at the meeting to be eligible to vote. Virtual attendance is permitted.

Remuneration

Agricultural organizational representative members of the Committee are not eligible for remuneration for their participation on the Agricultural Advisory Committee. GSCA Board of Director representatives on the Committee

Grey Sauble Conservation Authority – Agricultural Advisory Committee – Terms of Reference
are eligible for a per diem pursuant to the policies established by the GSCA.

Reporting

The Committee Chair shall report to the GSCA Authority Members in the form of a report containing Committee Agendas, meeting minutes, and recommendations. When required the Committee may appoint a representative who best represents the topic of discussion to speak to the report. The Committee shall provide the Chief Administrative Officer/Secretary-Treasurer with a copy of the reports to be circulated to the GSCA Authority Members. Requests to present to the Board of Directors shall be submitted to the Chief Administrative Officer no later than three weeks prior to the subject Full Authority meeting. Written reports and package materials for the Board of Director's shall be provided to the Chief Administrative Officer no later than two weeks prior to the subject Full Authority meeting.

Resources

GSCA staff and other resource experts will be invited, as required, to provide additional input to the Committee. GSCA will provide administrative support, including the circulation of reports to the GSCA Members, distribution of agendas and the general administrative co-ordination of the meetings.

Revision History

23-February-2023 – updated composition of Committee to include four (4) members of GSCA Board of Directors. Previously two (2) members of GSCA Board of Directors were included.



Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-031

MOVED BY: _____

SECONDED BY: _____

WHEREAS GSCA established an Agricultural Advisory Committee in 2021 (FA-21-048);

AND WHEREAS, the GSCA Board of Directors approved updates to the Terms of Reference of the Agricultural Advisory Committee (FA-22-021);

AND WHEREAS, at the February 2023 Board of Directors meeting, Board Members requested an amendment to the composition of the committee membership;

THAT, the GSCA Board of Directors approve the updated Terms of Reference for the Agricultural Advisory Committee as presented in Appendix A;



Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-032

MOVED BY: _____

SECONDED BY: _____

WHEREAS GSCA maintains an Agricultural Advisory Committee composed of members of the Agricultural community and members of GSCA's Board of Directors;

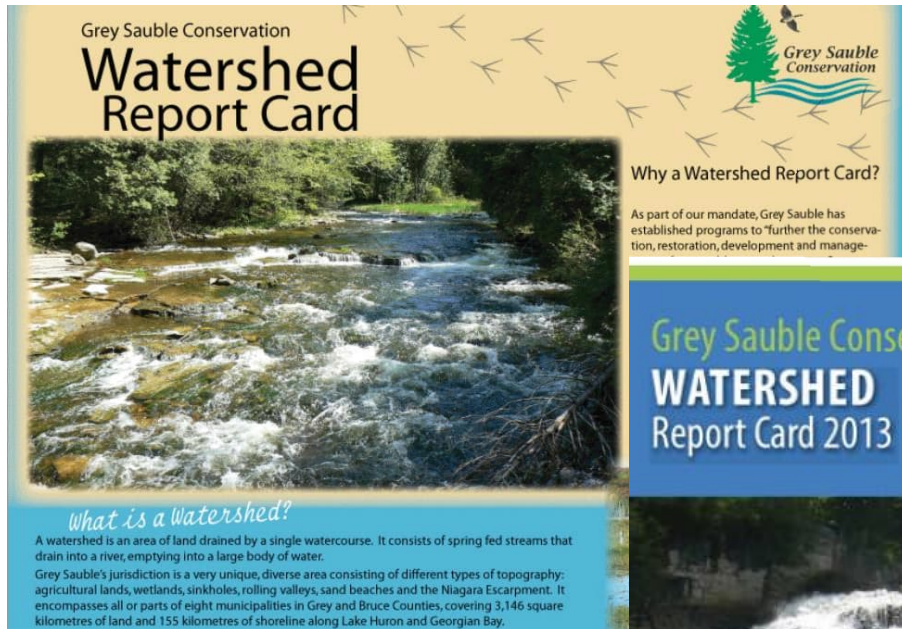
THAT, the GSCA Board of Directors appoint Member Scott Mackey and Member Jennifer Shaw to Agricultural Advisory Committee for the 2023 operating year.



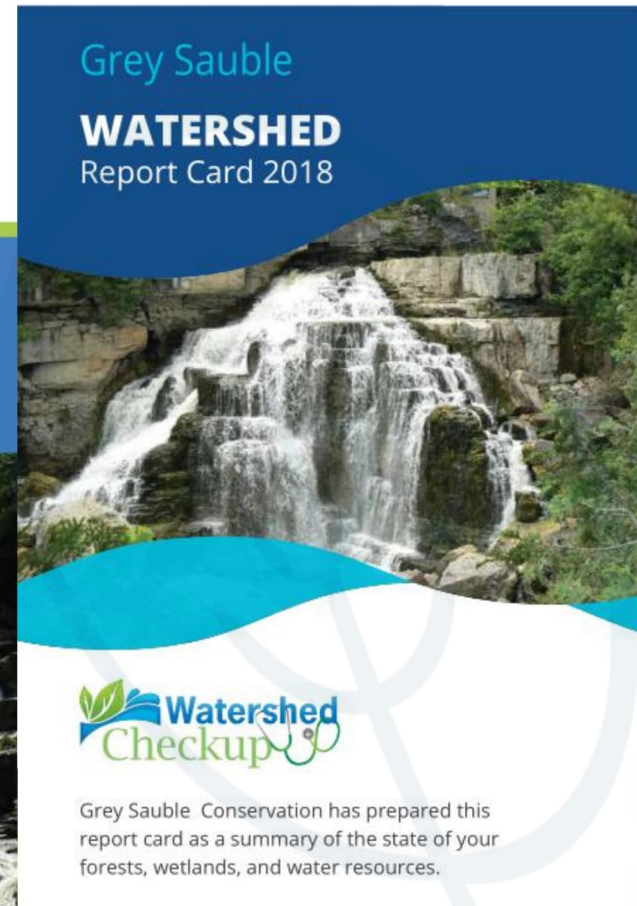
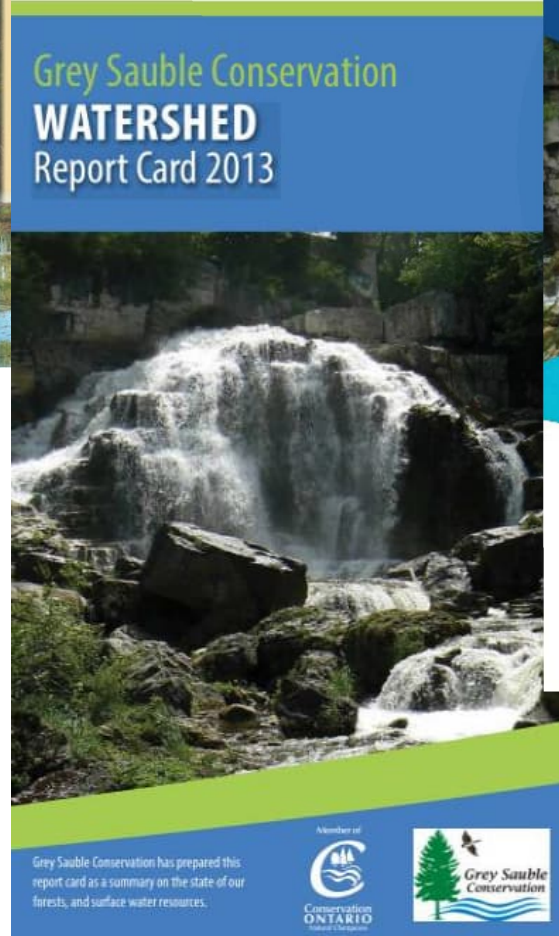
Watershed Health Reviews

- **2018 Sauble Headwaters (above Tara) – renamed “Upper Sauble” for 2023**
- **Started collecting Water Quality data in 2012**
- **Subwatershed of Sauble River**

Past Report Cards



2008



2018 Report Cards

SURFACE WATER QUALITY

Total phosphorus and *Escherichia coli* (bacteria) were measured. The type and number of Benthic invertebrates (small aquatic animals living in the sediment) were also identified. The results indicate pollution levels and stream health as measures of water quality. High surface water quality supports safe drinking water and provides social, economic and health benefits to people and animals.

What Did we Find?

- Watersheds score very well with most watersheds achieving a grade of Excellent or Good.
- Watersheds achieving a lower grade typically have poor forest cover grades as well, specifically poor treed riparian areas along watercourses.



FOREST CONDITIONS

The percentages of forest cover, forest interior, and stream edges forested were measured. Forest interior provides habitat for many species that don't survive in smaller patches of trees. Forested stream edges cool water for native fish, prevent erosion and reduce contaminants entering streams.

What Did we Find?

- Grades were generally Good to Excellent.
- In areas with more intensive agriculture, grades were lower.
- Forest cover grades take time to improve since after trees are planted it may take years before they form a tree canopy.



WETLAND CONDITIONS

The percentage of wetland cover was measured. Wetlands have large biodiversity and mitigate both flooding and droughts downstream.

What Did we Find?

- Most of the larger watersheds score very well.
- Some of the smaller and steeper watersheds had poor wetland coverage.
- Drainage improvements for agriculture likely has the greatest impact on wetland coverage.
- It is important to maintain our current wetlands as it is very difficult to increase wetland coverage.



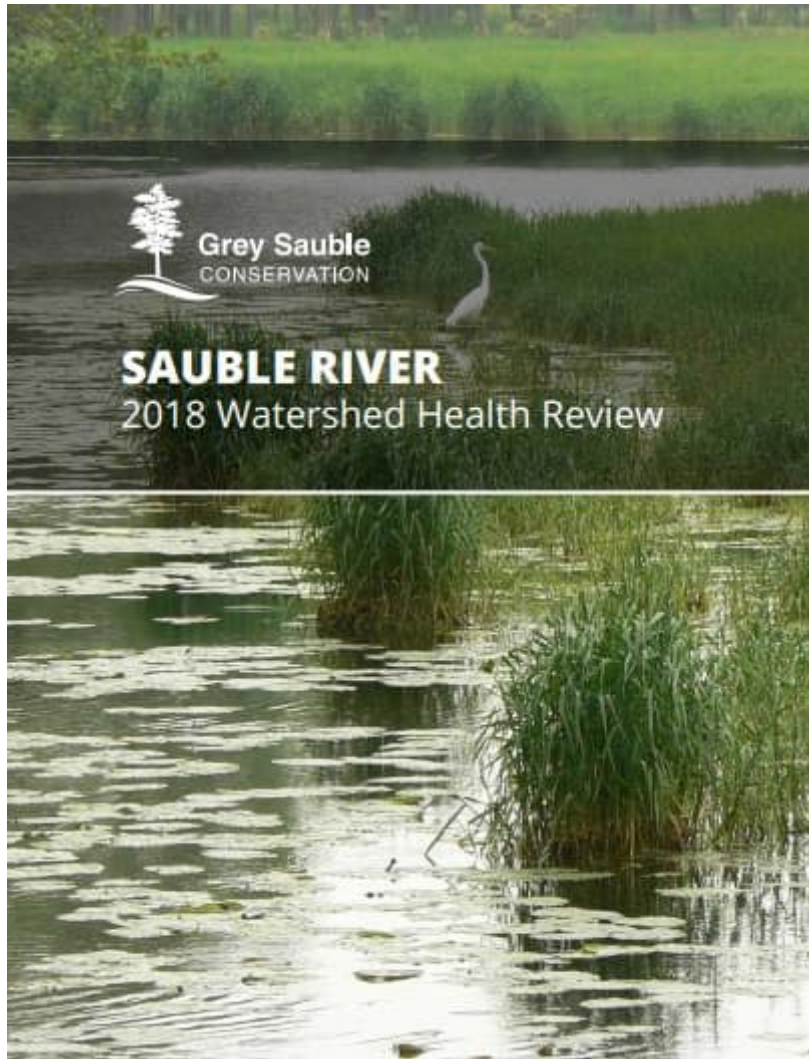
For more details about the information found in these maps, visit greysauble.on.ca or contact us. You can find our contact

2018 Report Cards

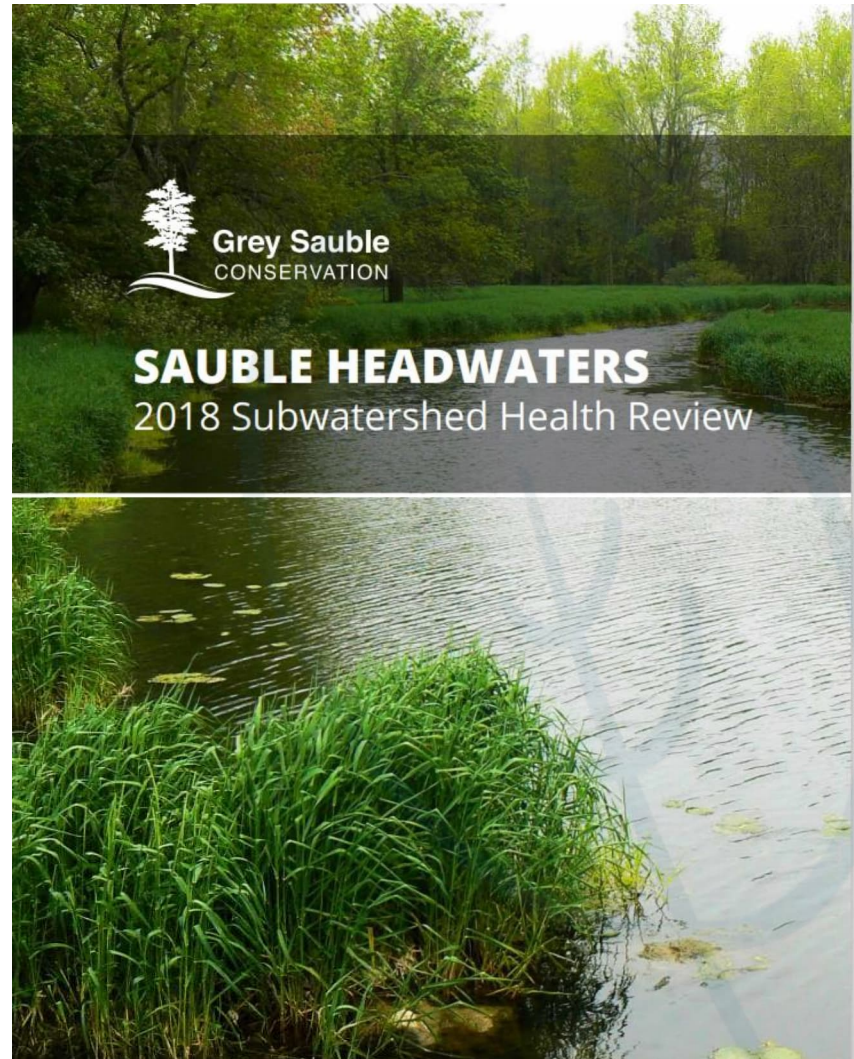
Watershed Grades Table

| Watershed Name | Catchment Name | Sub Catchment | Forest Cover Grade | Wetland Grade | Surface Water Grade |
|---------------------|--------------------|---------------|--------------------|---------------|---------------------|
| Beaver River | Beaver River | | A | B | A |
| | Beaver Valley | Upper Beaver | B | C | B |
| | | Upper Beaver | B | A | B |
| | | Upper Boyne | B | A | A |
| | Mill Creek | | A | B | A |
| Big Bay Creek | Big Bay Creek | | A | A | C |
| Bighead River | Bighead Headwaters | | A | B | A |
| | Bighead River | | B | C | B |
| Bothwell Creek | Bothwell Creek | | B | D | B |
| Centreville Creek | Centreville Creek | | B | D | B |
| Gleason Brook | Gleason Brook | | B | A | A |
| Indian Brook | Indian Brook | | D | F | B |
| Indian Creek | Indian Creek | | B | A | B |
| Johnson Creek | Johnson Creek | | B | F | Insufficient Data |
| Keefer Creek | Keefer Creek | | A | C | B |
| Little Beaver River | Little Beaver | | D | F | C |
| Pottawatomi River | Pottawatomi River | | B | A | B |
| Sauble River | Rankin River | | B | A | A |
| | Sauble Headwaters | | D | C | C |
| | Sauble North | | A | A | B |
| | Sauble River | | B | A | A |
| | Sauble South | | D | D | B |
| | Spring Creek | | A | A | A |
| Stoney Creek | Stoney Creek | | A | A | Insufficient Data |
| Sucker Creek | Sucker Creek | | B | B | Insufficient Data |
| Sydenham River | Sydenham River | | A | B | B |
| Townline Creek | Townline Creek | | B | A | C |
| Waterton Creek | Waterton Creek | | C | F | B |

Sauble River Watershed



Sauble Headwaters Subwatershed



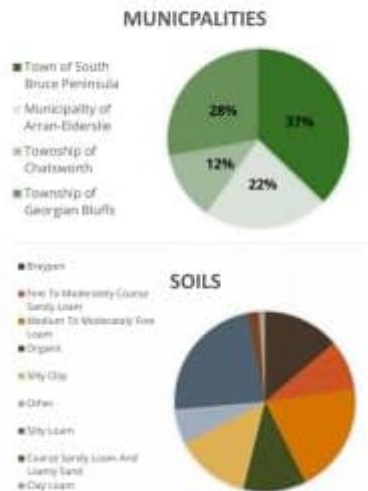
Sauble River Watershed



STREAM HEALTH: EXCELLENT FOREST CONDITIONS: EXCELLENT WETLAND CONDITIONS: EXCELLENT GROUNDWATER INFORMATION: INSUFFICIENT DATA



SAUBLE Watershed Health Review



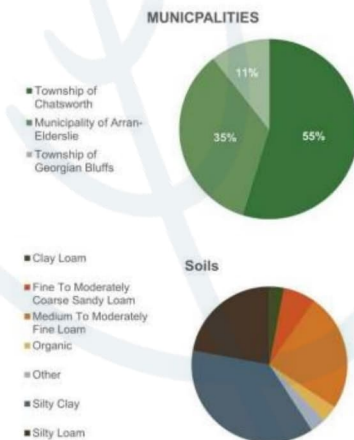
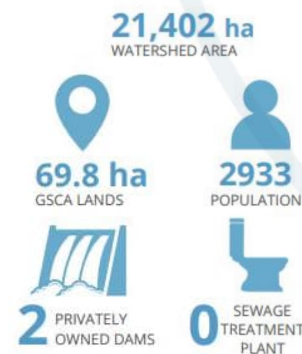
Sauble Headwaters Subwatershed



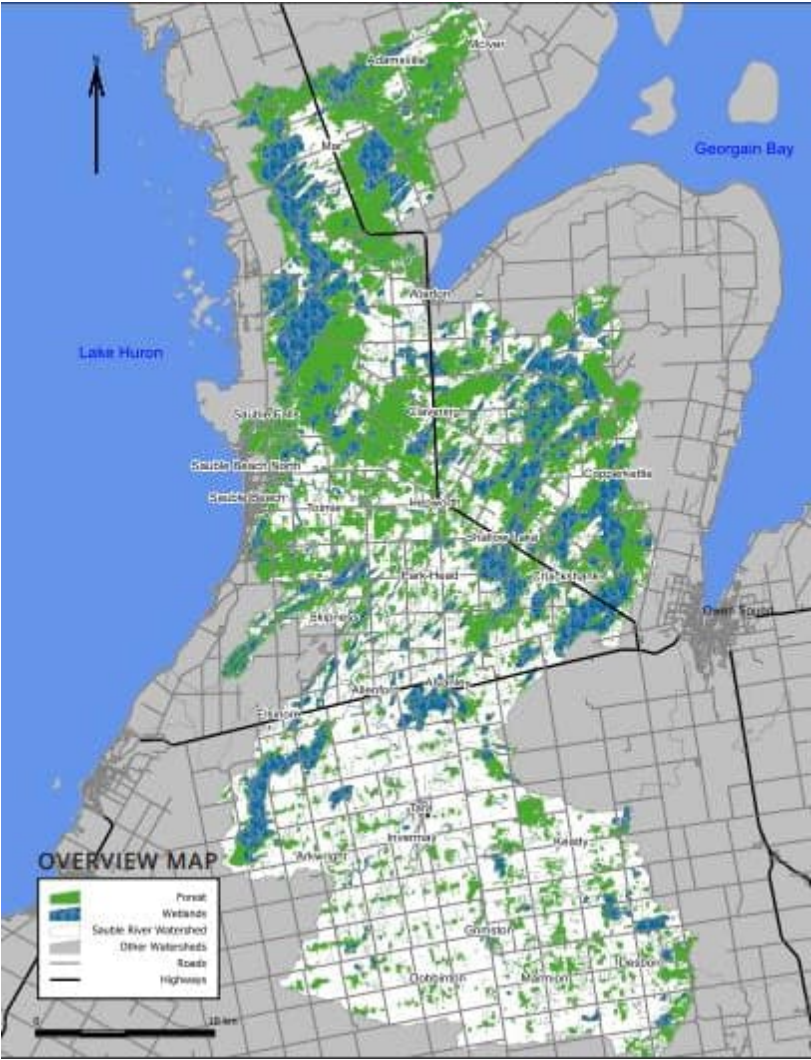
STREAM HEALTH: FAIR FOREST CONDITIONS: POOR WETLAND CONDITIONS: FAIR GROUNDWATER INFORMATION: INSUFFICIENT DATA



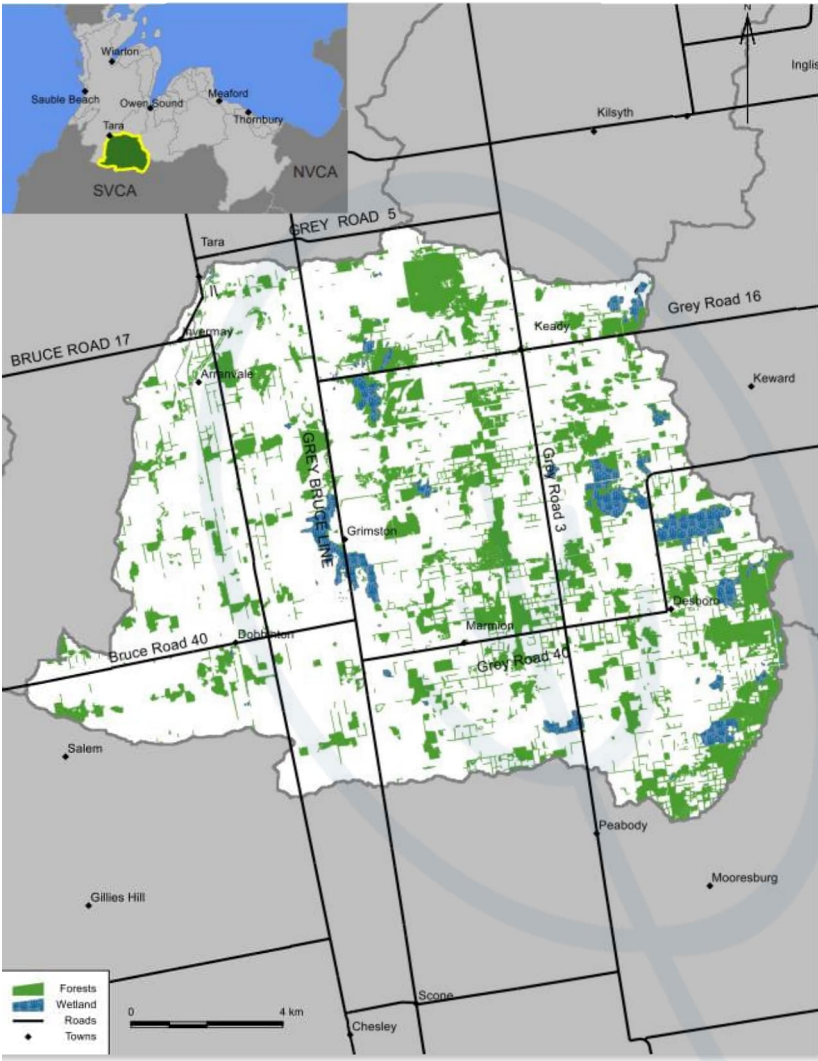
SAUBLE HEADWATERS Subwatershed Health Review



Sauble River Watershed



Sauble Headwaters Subwatershed



Sauble River Watershed



GRADING CHART:

- A: EXCELLENT**
- B: GOOD**
- C: FAIR**
- D: POOR**
- F: VERY POOR**
- INSUFFICIENT DATA**

STREAM HEALTH

Overall, surface water quality of the Sauble River received an "A" letter grade, indicating excellent water quality. There are several water quality monitoring stations within this watershed but only the one closest to the outlet is used for scoring. This station is located at the Bruce Road 13 bridge, just upstream of Sauble Falls. Water quality data has been collected at this site since 1970, but only the last 15 years have been reviewed. Total Phosphorus values* have stayed consistent throughout the 15-year monitoring period, with results indicating trace amounts just above detection. It is important to continue to monitor this parameter as there is growing concern throughout the Great Lakes Basin over harmful algal blooms which are caused by high phosphorus loading. Agricultural runoff, golf course and residential fertilizers, as well as failing septic systems are all potential point sources that could increase Phosphorus levels. Landowners are urged to continue implementing Best Management Practices (BMPs) to maintain current results.

Fecal bacteria (E. coli) monitoring began in 2011, and since that time values** remain below the 100-count level. This level is a provincial target used to determine if beaches are safe for swimming. High E. coli counts are common after large rain events when manure from farm fields enters waterways or at sites with a high population of waterfowl.

Sauble Headwaters Subwatershed



GRADING CHART:

- A: EXCELLENT**
- B: GOOD**
- C: FAIR**
- D: POOR**
- F: VERY POOR**
- INSUFFICIENT DATA**

STREAM HEALTH

Overall, surface water quality in the Sauble Headwaters subwatershed received a "C" letter grade, indicating fair water quality. The only stream sampling location is near the bottom end of this subwatershed, just upstream of the former Tara Dam site within the Grey Sauble Conservation Authority's (GSCA) Tara property. Sampling began in 2012 and has provided 6 years of continuous data.

The "75th percentile" is used to evaluate most water chemistry parameters. The resulting value typically represents the normal levels found in the water samples. Total Phosphorus is generally the most common parameter of interest for surface water monitoring. It is important to continue to monitor this parameter due to growing concerns throughout the Great Lakes Basin over harmful algal blooms which are caused by high phosphorus loading. Agricultural runoff, golf course and residential fertilizers, as well as failing septic systems are all potential point sources that could increase phosphorus levels.

Over the two monitoring periods, total phosphorus levels have remained constant but are generally higher than the Provincial Water Quality Objective of 0.03 mg/l. Landowners are urged to continue implementing Best Management Practices (BMPs) in order to improve current levels.

Fecal bacteria (E.coli) levels are generally summarized by their Geometric Mean values. The Provincial Water Quality Objective for swimming conditions is 100 count/100 ml. This level is used to determine if beaches are safe for swimming. High E.coli counts are common in local waterways after large rain events carry stormwater from urban areas or flush sediment and manure from agricultural fields. Unrestricted livestock access to waterways can also directly contribute E. coli to surface water. In general, geometric mean E. coli levels have consistently remained below the Provincial objective at this sampling location.

Sauble River Watershed



Benthic invertebrates are small aquatic animals that live on the bottom of streams. These communities are excellent indicators of stream health because they are very sensitive to changes in environmental conditions.

The Family Biotic Index (FBI) was the index used to determine this stream health grade, however GSCA also uses the BioMAP Index, which is a more holistic index for stream health (presented on Page 13 along with more chemistry results). The FBI Index scores the benthic community consistently as an A grade, whereas the BioMAP Index scores the site consistently as a B.



The below table shows the results for the three parameters that count towards the report card grade. Sample size is represented by "n".

| INDICATORS | 2003-2007 | 2008-2012 | 2013-2017 | GUIDELINE | INDICATOR DESCRIPTION |
|-----------------------------------|----------------------|-----------------------|----------------------|----------------------------|---|
| Total Phosphorus (mg/L)* | 0.021 A (n=19) | 0.0193 A (n=10) | 0.016 A (n=40) | 0.030 B Aquatic Life | Phosphorus is found in products such as fertilizer and detergents, and contributes to excess algal growth which creates low oxygen in streams and lakes. |
| Bacteria (# per 100 mL)** | N/A | 87.26 B (n=15) | 31.61 B (n=40) | 100 B Recreation | E.coli is a fecal coliform bacteria found in human and animal waste. It is a strong indicator of the potential to have organisms present that could harm human health. |
| Benthic Score FBI Index*** | N/A | 4.22 A (n=2) | 5.34 A (n=1) | <5.00 B Target Only | Benthic macroinvertebrates are small aquatic animals that live at the bottom of streams. These organisms are good indicators of water quality and are commonly used to diagnose watershed health. |

*75th percentile, MECP PQQM data. Grades based on Conservation Ontario standards (2017). **Geometric mean, GSCA data. ***Average. Grades based on Conservation Ontario standards (2017).

Sauble Headwaters Subwatershed



Benthic invertebrates are small aquatic animals that live on the bottom of streams. These communities are excellent indicators of stream health since they can be very sensitive to changes in environmental conditions.

The Family Biotic Index (FBI) was the index used to determine this stream health grade for this Subwatershed Health Review due to its simplicity. However, GSCA also uses the BioMAP Index, which provides additional insight into the stream's health. This data is presented on Page 13 along with additional water chemistry results. Based on the limited number of samples, the FBI index suggests that stream health has improved slightly from "poor" to "fair".



The table below shows the results for the three parameters that are used to determine the report card grade. Sample size is represented by "n".

| INDICATORS | 2008-2013 | 2013-2018 | GUIDELINE | INDICATOR DESCRIPTION |
|-----------------------------------|---------------------|----------------------|----------------------------|---|
| Total Phosphorus (mg/L)* | 0.034 B (n=8) | 0.035 C (n=40) | 0.030 B Aquatic Life | Phosphorus is found in products such as fertilizer and detergents, and contributes to excess algal growth which creates low oxygen in streams and lakes. |
| Bacteria (# per 100 mL)** | 68.17 B (n=8) | 55.36 B (n=40) | 100 B Recreation | E.coli is a fecal coliform bacteria found in human and animal waste. It is a strong indicator of the potential to have organisms present that could harm human health. |
| Benthic Score FBI Index*** | 5.96 D (n=2) | 5.31 C (n=1) | <5.00 B Target Only | Benthic macroinvertebrates are small aquatic animals that live at the bottom of streams. These organisms are good indicators of water quality and are commonly used to diagnose watershed health. |

*75th percentile, MECP PQQM data. Grades based on Conservation Ontario standards (2017). **Geometric mean, GSCA data. ***Average. Grades based on Conservation Ontario standards (2017).

Sauble River Watershed



GRADING CHART:

- A: EXCELLENT**
- B: GOOD**
- C: FAIR**
- D: POOR**
- F: VERY POOR**
- INSUFFICIENT DATA**

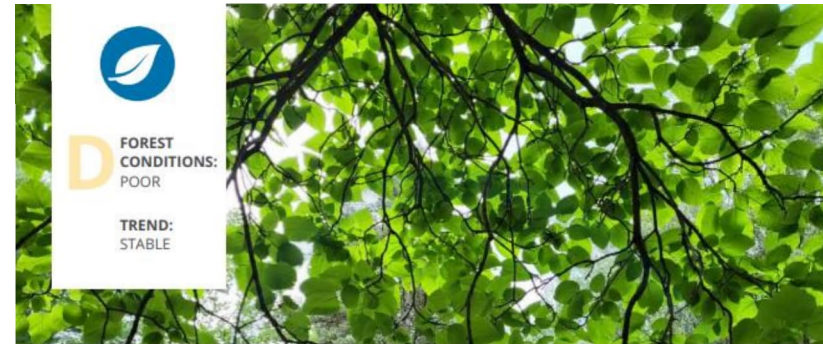
FOREST CONDITIONS

Forest cover is calculated by using up-to-date aerial imagery and applying Geographic Information Systems (GIS) mapping and analysis techniques. It takes 20 or more years for trees to become large enough to count towards the watershed report card grades. Currently, Grey Sauble Conservation Authority (GSCA) has planted 241 hectares in this watershed.

Riparian and interior forests provide important habitats and wildlife corridors, making this a key area for conservation efforts and habitat protection. Forests Ontario, Alternative Land Use Services (ALUS) and GSCA have programs that provide subsidies and incentives for landowners to plant more trees. GSCA also assists landowners with the Managed Forest Tax Incentive Program, which allows landowners with 4 hectares to be eligible for a tax break.

This map shows overall forest cover, interior forest, and riparian forests throughout the watershed. There is good forest cover throughout the northern portions of the watershed with much less coverage in the southern half. This is due to the major land use in the southern half of this watershed being agriculture. Tree cover in this area is usually limited to poorly drained areas and areas that are difficult to clear for row crops and livestock pasture. Tree planting is one of the simplest ways to improve all forest cover. Efforts could be made to improve forest connectivity and riparian cover. There are 28 GSCA properties in the Sauble River watershed, totaling 3193 ha of forest.

Sauble Headwaters Subwatershed



GRADING CHART:

- A: EXCELLENT**
- B: GOOD**
- C: FAIR**
- D: POOR**
- F: VERY POOR**
- INSUFFICIENT DATA**

FOREST CONDITIONS

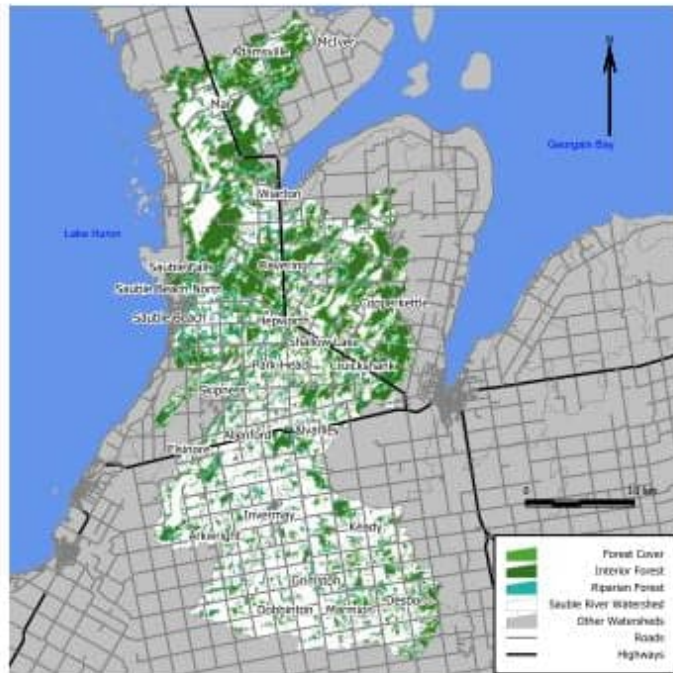
Forest cover is calculated by using up-to-date air photos and applying Geographic Information Systems (GIS) mapping and analysis techniques. It takes over 20 years for trees to become large enough to count towards the Subwatershed Health Review. Currently, GSCA has planted approximately 69.5 hectares of trees in this subwatershed.

Riparian and interior forests provide important habitats and wildlife corridors, making this a key area for conservation efforts and habitat protection. Forests Ontario, Alternative Land Use Services (ALUS) and GSCA have programs that provide subsidies and incentives for landowners to plant more trees. GSCA also assists landowners with the Managed Forest Tax Incentive Program, which allows landowners with 4 hectares or more to be eligible for a tax break.

This map shows overall forest cover, interior forest, and riparian forests on public and private properties throughout the subwatershed. The Sauble Headwaters subwatershed has some of the most productive farmland within the Grey Sauble jurisdiction. As a result, most of the forests have been cleared from the area. Total forest cover is graded a "C", but the patches are small and fragmented resulting in poor interior forest cover and poor forest cover along the waterways. The overall grade is a "D". Some tree planting has occurred within the watershed but improving the overall grade will be challenging. Any improvements to the overall tree coverage will be considered a huge benefit.

There are two GSCA properties in the Sauble Headwaters subwatershed, totaling 56 hectares of forest.

Sauble River Watershed

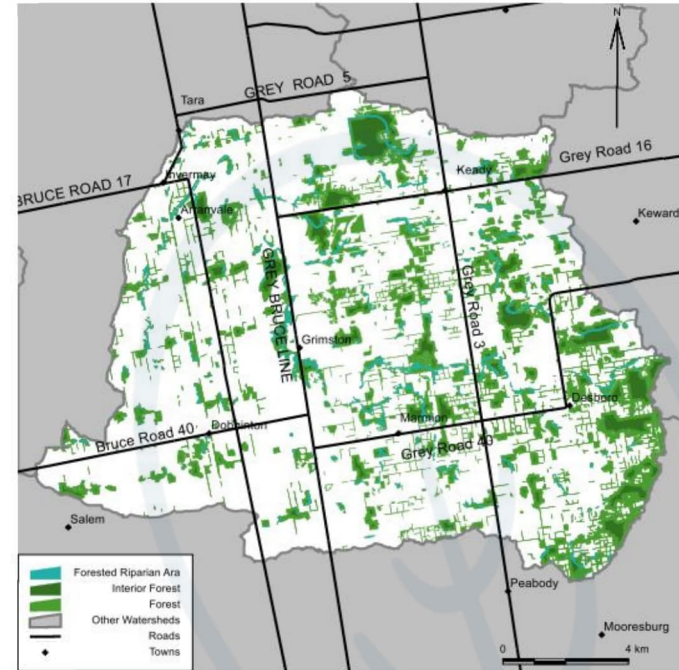


| INDICATORS | 2008-2012* | 2013-2017* | ECCC GUIDELINE** | INDICATOR DESCRIPTION |
|--------------------------|------------|------------|------------------|--|
| % Forest Cover | 41.54 A | 39.6 A | 30 B | Forest cover is the percentage of the watershed that is forested. Watersheds should contain at least 30% forest cover to sustain native flora and fauna (ECCC, 2013). |
| % Forest Interior | 14.53 A | 11.91 A | 10 B | Forest interior is the remaining portion of a woodlot when a 100 metre buffer is removed. Forest interior provides native species with undisturbed habitat. |
| % Riparian Zone Forested | 36.43 C | 35.61 C | 50 B | Percent riparian zone forested is a measure of the amount of forest cover within a 30 m riparian/buffer zone adjacent to all open watercourses. Riparian zones protect water quality and provide important ecological services, habitat and movement corridors for wildlife. |

*Data based on 2015 colour air photography. **ECCC Guideline—Environment Canada guideline based on "How Much Habitat is Enough?" (2013). Grades based on Conservation Ontario standards (2017).

T | SAUBLE RIVER WATERSHED HEALTH REVIEW 2018

Sauble Headwaters Subwatershed



| INDICATORS | 2008-2013 | 2013-2018 | ECCC GUIDELINE** | INDICATOR DESCRIPTION |
|--------------------------|------------|------------|------------------|--|
| % Forest Cover | 18.83 D | 18.85 D | 30 B | Forest cover is the percentage of the watershed that is forested. Watersheds should contain at least 30% forest cover to sustain native flora and fauna (ECCC, 2013). |
| % Forest Interior | 2.94 D | 2.84 D | 10 B | Forest interior is the remaining portion of a woodlot when a 100 metre buffer is removed. Forest interior provides native species with undisturbed habitat. |
| % Riparian Zone Forested | 22.38 D | 22.70 D | 50 B | Percent riparian zone forested is a measure of the amount of forest cover within a 30 m riparian/buffer zone adjacent to all open watercourses. Riparian zones protect water quality and provide important ecological services, habitat and movement corridors for wildlife. |

*Data based on 2015 colour air photography. **ECCC Guideline—Environment Canada guideline based on "How Much Habitat is Enough?" (2013). Grades based on Conservation Ontario standards (2017).

7 | UPPER SAUBLE SUBWATERSHED HEALTH REVIEW 2018

Sauble River Watershed



WETLAND CONDITIONS

GRADING CHART:

A: EXCELLENT

B: GOOD

C: FAIR

D: POOR

F: VERY POOR

INSUFFICIENT DATA

Wetlands are an important part of ecological function within a watershed. They provide many ecosystem services including: improving water quality by filtering runoff, assisting with flood control by storing water, and maintaining hydrological function during dry periods. Wetlands are also home to many rare species of flora and fauna.

Wetland cover in the Sauble River watershed was calculated using up-to-date aerial photography and applying Geographic Information Systems (GIS) and analysis techniques. Grey Sauble staff are constantly working to improve wetland information on a local scale.

Coverage in this watershed is excellent when compared to Environment and Climate Change Canada's habitat recommendations. Sauble River watershed currently has 10.25% wetland cover, with the recommended coverage being 10%. It is important to protect these wetlands as it is extremely difficult to get them back once they are gone.

There are many threats to wetlands in Southern Ontario, including land conversion for development, drainage for agriculture and invasive species such as Phragmites. Organizations including Ducks Unlimited Canada, ALUS Grey Bruce and GSCA are interested in working with landowners to protect wetland features, deliver restoration efforts, and create new wetland habitat.



The Shouldice Wetland Complex is a Provincially Significant Wetland within the Sauble River watershed. This 868 hectare swamp is home to many species of turtles and birds and is an important hydrological feature. Other notable wetlands in the Sauble River watershed include Skinner Marsh, Arman Lake Wetland Complex, Allenford Station, and Albemarle Brook.

B | SAUBLE RIVER WATERSHED HEALTH REVIEW 2018

Sauble Headwaters Subwatershed



WETLAND CONDITIONS

GRADING CHART:

A: EXCELLENT

B: GOOD

C: FAIR

D: POOR

F: VERY POOR

INSUFFICIENT DATA

Wetlands are an important part of ecological function within a watershed. They provide many ecosystem services including: improving water quality by filtering runoff, assisting with flood control by storing water, and maintaining hydrological function during dry periods. Wetlands are also home to many rare species of flora and fauna.

Wetland cover was calculated using up-to-date air photos and applying Geographic Information Systems (GIS) and analysis techniques. Grey Sauble staff are constantly working to improve wetland information on a local scale. Future updates to this data may occur after confirming actual wetland cover on the ground. Other changes to the existing wetland cover may result from drainage practices or wetland creation projects.

Coverage in this subwatershed is poor when compared to Environment and Climate Change Canada's habitat recommendations. The Sauble Headwaters subwatershed currently has 3% wetland cover, with the recommended coverage being 10%. It is important to protect these wetlands as it is extremely difficult to get them back once they are gone.

There are many threats to wetlands in Southern Ontario, including land conversion for development, drainage for agriculture and invasive species such as Phragmites. Organizations including Ducks Unlimited Canada, ALUS Grey Bruce and GSCA are interested in working with landowners to protect wetland features, deliver restoration efforts, and create new wetland habitat.



The Tara Wetland is a Provincially Significant Wetland located approximately 10 km upstream from the Village of Tara. This 131 hectare wetland, comprised of both swamp and marsh communities, is an important hydrologic feature and provides excellent wildlife habitat. It is home to several significant species, including Northern Pintail, Red Fox, numerous waterfowl species and also provides spawning habitat for Northern Pike.

B | SAUBLE HEADWATERS SUBWATERSHED HEALTH REVIEW

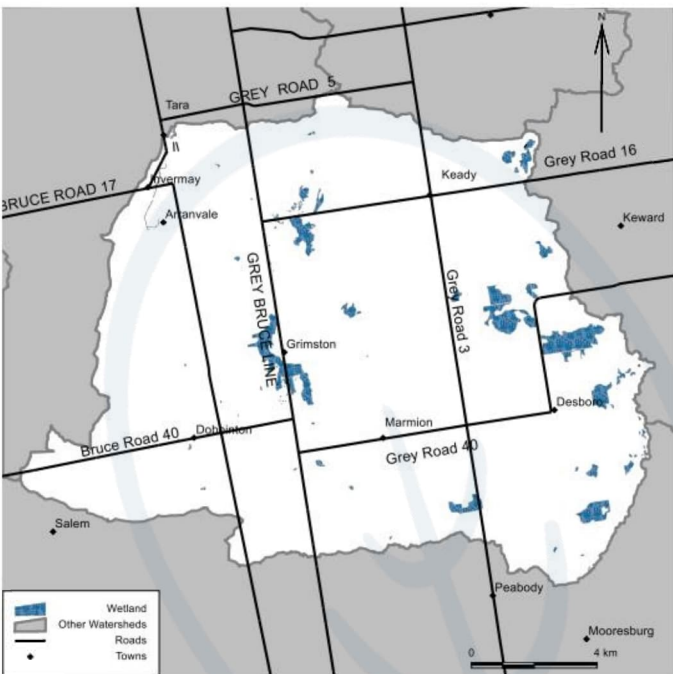
Sauble River Watershed



| INDICATORS | 2013-2017* | ECCC GUIDELINE** | INDICATOR DESCRIPTION |
|-------------------|------------|------------------|--|
| Wetland Cover (%) | 76.71 A | 10 B | Percent wetland cover is the percentage of the watershed that is in wetland cover. Wetlands include swamps (reed and thicket), bogs, fens and marshes. |

*Data based on 2015 colour air photography. **ECCC Guideline—Environment Canada guideline based on “How Much Habitat is Enough?” (2013) Grades based on Conservation Ontario standards (2017).

Sauble Headwaters Subwatershed



| INDICATORS | 2013-2017* | ECCC GUIDELINE** | INDICATOR DESCRIPTION |
|-------------------|------------|------------------|---|
| Wetland Cover (%) | 3.27 C | 10 B | Percent wetland cover is the percentage of the watershed that is wetland cover. Wetlands include swamps (reed and thicket), bogs, fens and marshes. |

*Data based on 2015 colour air photography. **ECCC Guideline—Environment Canada guideline based on “How Much Habitat is Enough?” (2013) Grades based on Conservation Ontario standards (2017).

Sauble River Watershed



GROUNDWATER

GRADING CHART:

- **A: EXCELLENT**
- **B: GOOD**
- **C: FAIR**
- **D: POOR**
- **F: VERY POOR**

 INSUFFICIENT DATA

Groundwater is water that is stored in bedrock fractures or between sand/gravel layers in aquifers. Through the Provincial Groundwater Monitoring Network (PGMN) partnership with the Ministry of Environment, Conservation and Parks, GSCA monitors water levels and water quality in 10 wells annually within the Grey Sauble watershed. There are three monitoring wells in this watershed. Unfortunately, these wells do not provide sufficient coverage to grade the groundwater resources for this entire watershed.

Surficial Geology and Soils

The southern headwaters of the Sauble River watershed is dominated by stoney, sandy, silt till and is part of the Late Wisconsinian glacial formation. The middle section of the watershed, closer to Lake Huron where the Sauble River enters, is dominated by sand and glaciolacustrine shallow water deposits. The northern part of the watershed is classified as rock dominated terrain with discontinuous thin drift cover and was formed during the Guelph Formation, comprised of dolostone, Silty loam and moderately to medium fine loam are the two dominant soil textures.

Drinking Water Source Protection

There are several drinking water systems in this watershed, including: Tara, Shallow Lake, Amabel-Sauble and Huron Woods in Sauble Beach. All of these drinking water systems, with the exception of two wells in Tara are classified as Groundwater Under Direct Influence of Surface Water (GUDI). Under the direct influence of surface water means the groundwater source is located near a surface water source such as a lake or river and receives surface water recharge. Due to the influence of surface water, the groundwater source is considered at risk of contamination from pathogens such as *Giardia lamblia* and viruses, which are not common in groundwater.

Sauble Headwaters Subwatershed



GROUNDWATER

GRADING CHART:

- **A: EXCELLENT**
- **B: GOOD**
- **C: FAIR**
- **D: POOR**
- **F: VERY POOR**

 INSUFFICIENT DATA

Groundwater is water that is stored in bedrock fractures or between sand/gravel layers in aquifers. Through the Provincial Groundwater Monitoring Network (PGMN) partnership with the Ministry of Environment, Conservation and Parks, GSCA monitors water levels and water quality in 10 wells annually within the Grey Sauble watershed. However, there are no PGMN wells in Sauble Headwaters subwatershed. There is insufficient information available to grade groundwater within this subwatershed.

Surficial Geology and Soils

The Sauble Headwaters subwatershed is dominated by stoney, sandy, silt till and is part of the Late Wisconsinian glacial formation.

Drinking Water Source Protection

The community of Tara has a large residential municipal groundwater system with three supply wells that are classified as Groundwater Under Direct Influence of Surface Water (GUDI). Under the direct influence of surface water means the groundwater source is located near a surface water source such as a lake or river and receives surface water recharge. Due to the influence of surface water, the groundwater source is considered at risk of contamination from pathogens such as *E.coli*, which are not common in deeper groundwater sources. The Tara wellhead protection area (WHPA) includes capture zones extend predominantly in an easterly direction to a maximum distance of approximately 3.7 km from the wells. Furthermore, a WHPA-E was delineated for Tara Well No. 3, which is located 50m from the Sauble River and its floodplain. Under flood conditions, areas are not only affected within the town of Tara but also further upstream. The WHPA-E extends 4.8 km in the upstream direction of the river flow and includes all tributaries within the 2-hour Time-of-Travel. A 120m setback or the regulation limit, and areas with agricultural tile drainage were added.

Around each of these municipal wells are Wellhead Protection Areas (WHPAs). These areas highlight the time it takes for contaminants to reach drinking water, so it is important to monitor potential threats in these areas.

- WHPA-A: 100 m radius around a municipal well
- WHPA-B: Area where water can flow to the well in 2 years
- WHPA-C: Area where water can flow to the well in 5 years
- WHPA-D: Area where water can flow to the well is less than 25 years and not within WHPA A, B or C
- WHPA-E: Can only apply to GUDI wells, as it is the 2-hour time of travel within surface water that influences the well







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- WHPA-A: 100 m radius around a municipal well
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- WHPA-E: Can only apply to GUDI wells, as it is the 2-hour time of travel within surface water that influences the well



Sauble River Watershed



ACTIONS FOR IMPROVEMENT

On the Shore

- Leave a minimum of 3 feet of native vegetation in place. Having a vegetated buffer helps to filter runoff, prevent erosion, maintain water levels, and deter waterfowl.
- Minimize fertilizer use to prevent excess nutrients from entering the lake.
- Learn how to identify and control invasive species.
- Regularly service your septic system.
- Decommission unused wells to prevent contaminants from entering groundwater.

On the Farm

- Improve water quality and habitat by fencing livestock out of streams.
- Maintain a vegetated buffer between crop land and waterways.
- Upgrade manure storage and barn eavestroughing to divert clean water.
- Reduce soil erosion through no-till, residue management and cover crops.
- Plant windbreaks to protect your soils.
- Reduce nutrient loss by implementing a nutrient management plan.
- Conserve water and minimize pesticide use.

In Town


- Leave a minimum of 3 feet of native vegetation along creeks and lakes. Plant native species to protect the shoreline and create habitat.
- Conserve water indoors and collect water outdoors using a rain barrel.
- Increase your land permeability by using rain gardens, mulch or permeable pavement.
- Minimize fertilizer use to prevent excess nutrients from entering streams.
- Dispose of chemicals properly and do not pour harmful substances down the drain as these outlet to local waterways.


For Municipalities and other Agencies


- Work together with GSCA on consistent planning regulations and adoption of bylaws that will protect watercourses, wetlands, and vegetated riparian buffers.
- Adopt your own environmental sustainability initiatives and community grants.
- Municipalities, developers and GSCA staff work together on adoption of Low Impact Development (LID) practices and promote natural designs (bio-swales, infiltration trenches, permeable pavement) and stormwater retrofits.
- Secure environmentally significant properties, specifically wetlands, shorelands and properties that will connect natural features.
- Ensure appropriate approvals and/or permits are obtained so that the approval authority can monitor for implementation of approval conditions.

12 | SAUBLE RIVER WATERSHED HEALTH REVIEW 2018

Sauble Headwaters Subwatershed







ACTIONS FOR IMPROVEMENT

On the Shore

- Leave a minimum of 3 feet of native vegetation in place. Having a vegetated buffer helps to filter runoff, prevent erosion, maintain water levels, and deter waterfowl.
- Minimize fertilizer use to prevent excess nutrients from entering the lake.
- Learn how to identify and control invasive species.
- Regularly service your septic system.
- Decommission unused wells to prevent contaminants from entering groundwater.

On the Farm

- Improve water quality and habitat by fencing livestock out of streams.
- Maintain a vegetated buffer between crop land and waterways.
- Upgrade manure storage and barn eavestroughing to divert clean water.
- Reduce soil erosion through no-till, residue management and cover crops.
- Plant windbreaks to protect your soils.
- Reduce nutrient loss by implementing a nutrient management plan.
- Conserve water and minimize pesticide use.

In Town

- Leave a minimum of 3 feet of native vegetation along creeks and lakes. Plant native species to protect the shoreline and create habitat.
- Conserve water indoors and collect water outdoors using a rain barrel.
- Increase your land permeability by using rain gardens, mulch or permeable pavement.
- Minimize fertilizer use to prevent excess nutrients from entering streams.
- Dispose of chemicals properly and do not pour harmful substances down the drain as these outlet to local waterways.

For Municipalities and other Agencies

- Work together with GSCA on consistent planning regulations and adoption of bylaws that will protect watercourses, wetlands, and vegetated riparian buffers.
- Adopt your own environmental sustainability initiatives and community grants.
- Adopt Low Impact Development (LID) practices and promote natural designs (bio-swales, infiltration trenches, permeable pavement) and stormwater retrofits.
- Secure environmentally significant properties, specifically wetlands, shorelands and properties that will connect natural features.
- Ensure appropriate approvals and/or permits are obtained so that the approval authority can monitor for implementation of approval conditions.

12 | SAUBLE HEADWATERS SUBWATERSHED HEALTH REVIEW

Sauble River Watershed

ADDITIONAL SURFACE WATER QUALITY

In addition to the parameters used to grade the surface water quality section, a suite of other chemical parameters is tested on water samples, including: nitrate, chloride and total suspended solids. Nitrates may be present in water due to decay of plant or animal material, agricultural fertilizers, domestic sewage, or treated wastewater contamination, and geological formations containing soluble nitrogen compounds. The allowable limit for the protection of aquatic life is 550 mg/L short term, or 13 mg/L long term (CCME, 2012). The results shown in the above table indicate that nitrate concentrations are far below the allowable limit and have remained consistent over 15 years.

Chloride occurs naturally in the environment in mineral deposits and therefore many surface water and groundwater sources are naturally saline. However, chloride may be added to surface water through anthropogenic sources such as: salting of roads, agricultural or industrial fertilizers and sewage treatment. The allowable limit for chlorides in freshwater is 640 mg/L short term and 120 mg/L long term (CCME, 2011). The results shown in the above table indicate that chloride concentrations are below the long-term allowable limit and have remained consistent over 15 years.

Total suspended solids (TSS) in healthy streams have levels that show less than a 25 mg/L increase over background levels for short-term events and less than a 5 mg/L increase over longer term exposures (CCME, 2002). Suspended matter consists of silt, clay, fine particles of organic and inorganic matter, soluble organic compounds, plankton, and other microscopic organisms. The amount and type of suspended solids in surface water directly relates to the turbidity, or clarity of the water (CCME, 2002). TSS results have stayed consistent over 15 years and are therefore indicative of a healthy stream.

| CHEMICAL PARAMETERS | 2008-2007 | 2008-2012 | 2013-2017 |
|------------------------------|----------------|-----------------|-----------------|
| Nitrate (mg/L)*: | 0.30 (n=22) | 0.27 (n=34) | 0.45 (n=40) |
| Chloride (mg/L)*: | 15.2 (n=35) | 12.58 (n=36) | 12.28 (n=40) |
| Particulate residue (mg/L)*: | 2.6 (n=33) | 2.95 (n=37) | 3.13 (n=40) |

Additional Benthic Scoring:

A benthic index is a way to convert biological data into a measure of water quality. The BioMAP Index is a more holistic index than Hilsenhoff Family Biotic Index (FBI) and may provide further insights into the benthic invertebrate community and surface water quality. The BioMAP Index requires the identification to the lowest practical level (genus or species) measures water quality based on the presence of sensitive species at the site. All species are ranked based on their sensitivity values and the average of the top 25% is used to determine the grade.

BioMAP attempts to classify watersheds as impaired, unimpaired or in transition based on the size of the watercourse; creek <4 m, stream 4-16 m, river 16-64 m. These classifications and how they relate to the report card grading scores can be found on Page 15. The BioMAP Index is not commonly used by other Conservation Authorities due to the added identification requirements and the grading system used for the watersheds is unique to GSCA.

| | 2008-2012 | 2013-2017 | GUIDELINE |
|------------------------------------|--------------------|--------------------|--------------------------|
| Benthic Score BioMAP*(Qualitative) | 3.99 A (n=2) | 3.98 A (n=1) | <2.4 B Target Only |

Canadian Council of Ministers of the Environment. (2012). Nitrate Fact Sheet. Retrieved online from, <http://ceag-rcqe.ccm.ca/download/en/137/>
 Canadian Council of Ministers of the Environment. (2011). Chloride Fact Sheet. Retrieved online from, <http://ceag-rcqe.ccm.ca/download/en/137/>
 Canadian Council of Ministers of the Environment. (2002). Total Particulate Matter. Retrieved online from, <http://ceag-rcqe.ccm.ca/download/en/217/>
 Griffiths, R. (1999). BioMAP: Bioassessment of Water Quality. Niagara College: Canada: The Centre for Environmental Training.

Sauble Headwaters Subwatershed

ADDITIONAL SURFACE WATER QUALITY

In addition to the parameters used to grade the surface water quality section, a suite of other chemical parameters are tested through water samples, including: nitrate, chloride and total suspended solids. Nitrates may be present in water due to decay of plant or animal material, agricultural fertilizers, domestic sewage, or treated wastewater contamination, and geological formations containing soluble nitrogen compounds. The allowable limit for the protection of aquatic life is 550 mg/L short term, or 13 mg/L long term (CCME, 2012). The results shown in the above table indicate that nitrate concentrations are far below the allowable limit and have remained consistent over 15 years.

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Total suspended solids (TSS) in healthy streams have levels that show less than a 25 mg/L increase over background levels for short-term events and less than a 5 mg/L increase over longer term exposures (CCME, 2002). Suspended matter consists of silt, clay, fine particles of organic and inorganic matter, soluble organic compounds, plankton, and other microscopic organisms. The amount and type of suspended solids in surface water directly relates to the turbidity, or clarity of the water (CCME, 2002). TSS results have stayed consistent over 15 years and are therefore indicative of a healthy stream.

| CHEMICAL PARAMETERS | 2008-2012 | 2013-2017 |
|------------------------------|---------------|----------------|
| Nitrate (mg/L)*: | 2.16 (n=8) | 1.19 (n=40) |
| Chloride (mg/L)*: | N/A | 12 (n=39) |
| Particulate residue (mg/L)*: | N/A | 3 (n=39) |

Additional Benthic Scoring:

A benthic index is a way to convert biological data into a measure of water quality. The BioMAP Index is a more holistic index than Hilsenhoff Family Biotic Index (FBI) and may provide further insights into the benthic invertebrate community and surface water quality. The BioMAP Index requires the identification to the lowest practical level (genus or species) measures water quality based on the presence of sensitive species at the site. All species are ranked based on their sensitivity values and the average of the top 25% is used to determine the grade.

BioMAP attempts to classify watersheds as impaired, unimpaired or in transition based on the size of the watercourse; creek <4 m, stream 4-16 m, river 16-64 m. These classifications and how they relate to the report card grading scores can be found on page 15. The BioMAP Index is not commonly used by other Conservation Authorities due to the added identification requirements and the grading system used for the watersheds is unique to GSCA.

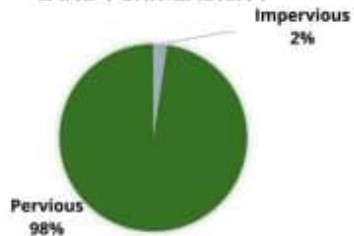
| | 2008-2012 | 2013-2017 | STREAM (4-16M) | GUIDELINE |
|------------------------------------|--------------------|--------------------|--|-----------------------|
| Benthic Score BioMAP*(Qualitative) | 3.22 B (n=1) | 3.06 B (n=3) | A>3.4 B>3.0 C>2.4-3.0 D<2.4 F<2.0 | >3.0 B Target Only |

Canadian Council of Ministers of the Environment. (2012). Nitrate Fact Sheet. Retrieved online from, <http://ceag-rcqe.ccm.ca/download/en/137/>
 Canadian Council of Ministers of the Environment. (2011). Chloride Fact Sheet. Retrieved online from, <http://ceag-rcqe.ccm.ca/download/en/137/>
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 Griffiths, R. (1999). BioMAP: Bioassessment of Water Quality. Niagara College: Canada: The Centre for Environmental Training.

Sauble River Watershed

ADDITIONAL WATERSHED FEATURES

LAND PERMEABILITY



1339 km
of watercourses

2.4%

of this watershed is regulated under the Niagara Escarpment Commission.

3696 ha

AREAS OF NATURAL AND SCIENTIFIC INTEREST (ANSI)
For Example: Mountain Lake Fen, Sauble Falls, Arkwright Drumlins



Rare Species

Hungerford's Crawling Water Beetle, Bobolink, American Hart's Tongue Fern, Butternut



Invasive Species

Round Goby, Phragmites, Wild Cherry, European Buckthorn, Boech Bark Disease



Fish Species

Brook, Rainbow and Brown Trout, Coho and Chinook Salmon, Smallmouth Bass and Yellow Perch etc.



Potential Stressors

Golf course irrigation, quarry activities, agricultural run-off, failing septic systems

Stewardship

In 2017, GSCA received a grant from the Ministry of Environment, Conservation and Parks Great Lakes Guardian Community Fund to implement clean water projects in the Village of Tara. This funding allowed for 1635 m of fencing to be installed along the Sauble River, preventing cattle from accessing surface water.

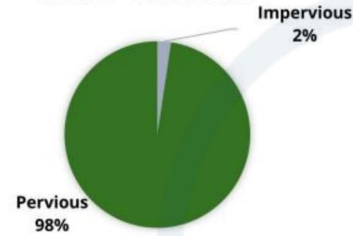
In the past, the Cleaning Up Rural Beaches program also focused on stewardship initiatives along the Sauble River to help limit E.coli along Lake Huron's beaches. These programs have been essential for implementing agricultural Best Management Practices for water quality.



Sauble Headwaters Subwatershed

ADDITIONAL WATERSHED FEATURES

LAND PERMEABILITY



299.94 km
of watercourses

463 ha

AREAS OF NATURAL AND SCIENTIFIC INTEREST (ANSI)
For Example: Dobbington Esker and Tara Moraine



Rare Species

Brook Trout



Invasive Species

Phragmites, Giant Hogweed, Wild Parsnip



Fish Species

Blacknose Dace, Blackside Darter, Bluntnose Minnow, Brook Stickleback, Brook Trout, Central Mudminnow, Common Shiner etc.



Potential Stressors

Golf course irrigation, quarry activities, agricultural run-off, failing septic systems

Stewardship

In 2017, GSCA received a grant from the Ministry of Environment, Conservation and Parks Great Lakes Guardian Community Fund to implement clean water projects in the Village of Tara. This funding allowed for 1635 m of fencing to be installed along the Sauble River, preventing cattle from accessing surface water.

In the past, the Cleaning Up Rural Beaches program also focused on stewardship initiatives along the Sauble River to help limit E.coli along Lake Huron's beaches. These programs have been essential for implementing agricultural Best Management Practices for water quality.



REFERENCES FOR HEALTH REVIEW GRADING

The below tables were developed by Conservation Ontario and the Watershed Report Card Working Group. The exception to the water quality table is the column representing BioMAP, which was developed by GSCA. These tables show how the grades were determined for each category. Points are awarded per category based on the grade and the final grade is based on an average of all points.



| Total Phosphorus (mg/L) | E. coli (#/100 mL) | Benthic | Benthic Invertebrates (BioMAP) | Point Score | Grade | Overall Surface Water Quality Grade | |
|-------------------------|--------------------|------------|---|-------------|-------|-------------------------------------|-------------|
| | | | | | | Final Points | Final Grade |
| <0.020 | 0-8 | 0.00-4.25 | Creek (>4m) 4.0 Stream (4-10m) 3.4 River (10-60m) 2.0 | 5 | A | 4.4 | A |
| 0.020-0.030 | 9-100 | 4.26-5.00 | Creek (>4m) 3.4 Stream (4-10m) 2.0 River (10-60m) 1.4 | 4 | B | 3.4 | B |
| 0.031-0.060 | 101-300 | 5.01-5.75 | Creek (>4m) 2.0 Stream (4-10m) 1.4 River (10-60m) 0.8 | 3 | C | 2.4 | C |
| 0.061-0.100 | 301-1000 | 5.76-6.50 | Creek (>4m) 0.8 Stream (4-10m) 0.8 River (10-60m) 0.4 | 2 | D | 1.4 | D |
| >0.100 | >1000 | 6.51-10.00 | Creek (>4m) 0.4 Stream (4-10m) 0.4 River (10-60m) 0.2 | 1 | F | 0.4 | F |



| % Forest Cover | % Interior Forest | % Riparian Forest | Point Score | Grade | Overall Forest Conditions | |
|----------------|-------------------|-------------------|-------------|-------|---------------------------|-------------|
| | | | | | Final Points | Final Grade |
| >35.0 | >11.3 | >57.3 | 5 | A | 4.4 | A |
| 25.1-35.0 | 8.0-11.3 | 42.9-57.3 | 4 | B | 3.4 | B |
| 15.1-25.0 | 5.0-8.0 | 27.5-42.9 | 3 | C | 2.4 | C |
| 5.0-15.0 | 2.0-5.0 | 12.3-27.5 | 2 | D | 1.4 | D |
| <5.0 | <2.0 | <12.3 | 1 | F | 0.4 | F |



| Grade | % Wetland Cover |
|-------|-----------------|
| A | >11.3 |
| B | 8.0-11.3 |
| C | 5.0-8.0 |
| D | 2.0-5.0 |
| F | <2.0 |

15 | SABLE RIVER WATERSHED HEALTH REVIEW 2018



What is a Conservation Authority?

Conservation authorities are local agencies that operate at a watershed-scale to protect, manage, and conserve natural resources and share an appreciation of the environment with others. Through partnerships in communities across Ontario, conservation authorities are able to help protect people and property from natural hazards like flooding and erosion and address specific environmental challenges we face locally.



GSCA is one of 36 Conservation Authorities Across Ontario

Over 13 million people, approximately 95% of Ontario's population live in areas that are managed by conservation authorities (CAs).

Guided by the Conservation Authorities Act of 1946, which was recently updated in 2017, Ontario's CAs are charged with the responsibility of "ensuring the conservation, restoration, development and management of Ontario's natural resources through programs that balance human, environmental and economic needs."

Member of



Grey Saddle Conservation Authority (GSCA) is not responsible for, and cannot guarantee, the accuracy of all the information contained within the maps. All of the included mapping is made available "AS IS", "AS AVAILABLE", and "WITH ALL FAULTS" without representation or warranties of any kind, either express or implied, as to the accuracy, completeness, reliability, currency, merchantability, fitness for purpose, title or otherwise. The entire risk as to the results and performance of the Map Products is assumed by the user. Produced by GSCA with Data supplied under license by Members of the Ontario Geospatial Data Exchange. Includes Material (2021) of the © Queen's Printer for Ontario and its licensors. All rights reserved. May not be reproduced without permission. THIS IS NOT A PLAN OR SURVEY.

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THANK YOU





Grey Sauble
CONSERVATION

UPPER SAUBLE

2018 Subwatershed Health Review





STREAM HEALTH:
FAIR



C

FOREST CONDITIONS:
POOR



D

WETLAND CONDITIONS:
FAIR



C

GROUNDWATER INFORMATION:
INSUFFICIENT DATA



-

UPPER SAUBLE

Subwatershed Health Review

21,402 ha
WATERSHED AREA



69.8 ha
GSCA LANDS



2933
APPROX. POPULATION



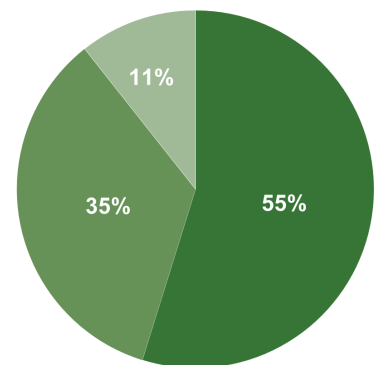
2 PRIVATELY OWNED DAMS



0 SEWAGE TREATMENT PLANT

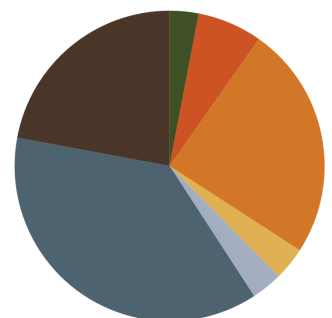
MUNICIPALITIES

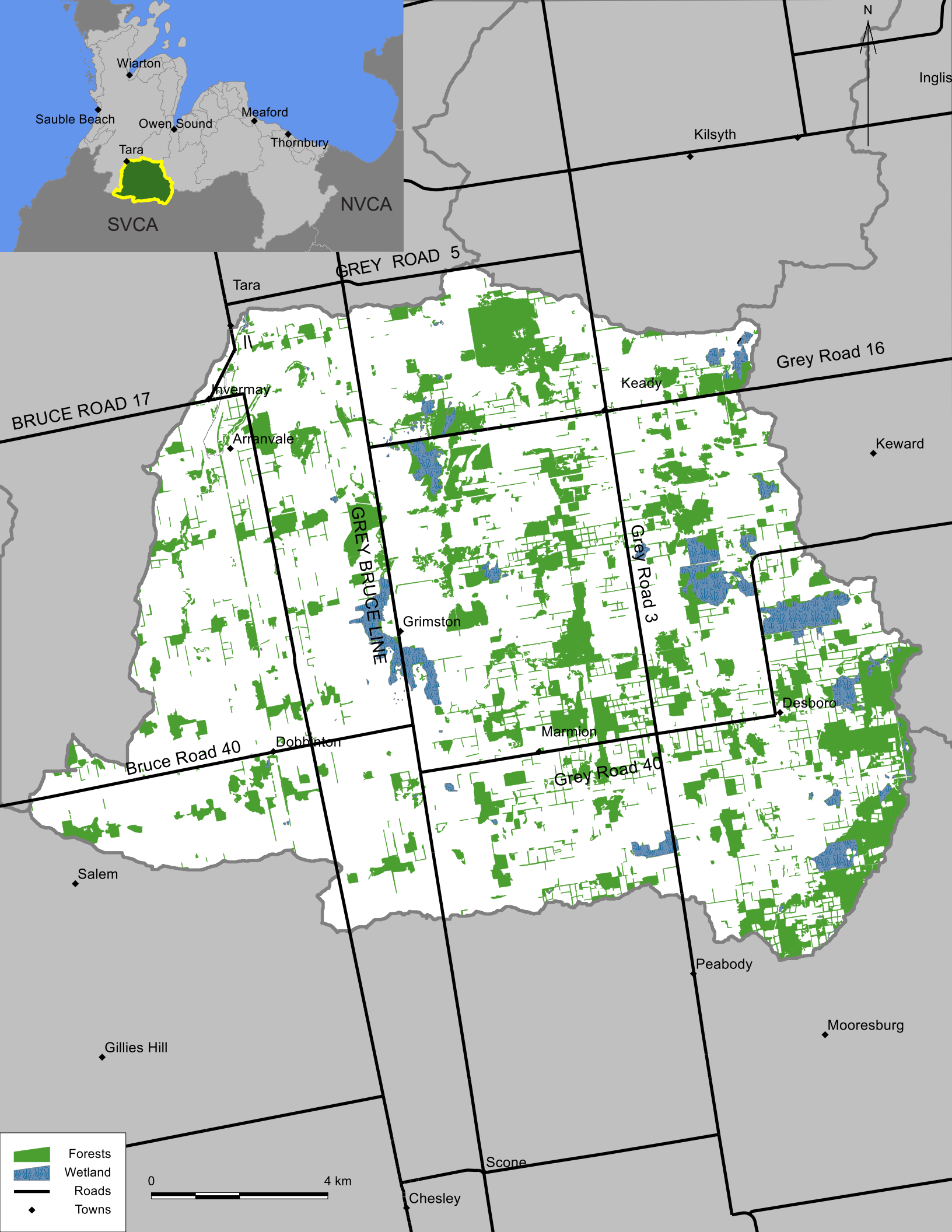
- Township of Chatsworth
- Municipality of Arran-Elderslie
- Township of Georgian Bluffs



- Clay Loam
- Fine To Moderately Coarse Sandy Loam
- Medium To Moderately Fine Loam
- Organic
- Other
- Silty Clay
- Silty Loam

Soils







**STREAM
HEALTH:**
FAIR

TREND:
NO TREND



GRADING CHART:

A: EXCELLENT

B: GOOD

C: FAIR

D: POOR

F: VERY POOR

**INSUFFICIENT
DATA**

STREAM HEALTH

Overall, surface water quality in the Upper Sauble subwatershed received a “C” letter grade, indicating fair water quality. The only stream sampling location is near the bottom end of this subwatershed, just upstream of the former Tara Dam site within the Grey Sauble Conservation Authority’s (GSCA) Tara property. Sampling began in 2012 and has provided 6 years of continuous data.

The “75th percentile” is used to evaluate most water chemistry parameters. The resulting value typically represents the normal levels found in the water samples. Total Phosphorous is generally the most common parameter of interest for surface water monitoring. It is important to continue to monitor this parameter due to growing concerns throughout the Great Lakes Basin over harmful algal blooms which are caused by high phosphorus loading. Agricultural runoff, golf course and residential fertilizers, as well as failing septic systems are all potential point sources that could increase phosphorus levels.

Over the two monitoring periods, total phosphorous levels have remained constant but are generally higher than the Provincial Water Quality Objective of 0.03 mg/l. Landowners are urged to continue implementing Best Management Practices (BMP’s) in order to improve current levels.

Fecal bacteria (E.coli) levels are generally summarized by their Geometric Mean values. The Provincial Water Quality Objective for swimming conditions is 100 count/100 ml. This level is used to determine if beaches are safe for swimming. High E.coli counts are common in local waterways after large rain events carry stormwater from urban areas or flush sediment and manure from agricultural fields. Unrestricted livestock access to waterways can also directly contribute E. coli to surface water. In general, geometric mean E. coli levels have consistently remained below the Provincial objective at this sampling location.



Benthic invertebrates are small aquatic animals that live on the bottom of streams. These communities are excellent indicators of stream health since they can be very sensitive to changes in environmental conditions.



The Family Biotic Index (FBI) was the index used to determine this stream health grade for this Subwatershed Health Review due to its simplicity. However, GSCA also uses the BioMAP Index, which provides additional insight into the stream's health. This data is presented on Page 13 along with additional water chemistry results. Based on the limited number of samples, the FBI index suggests that stream health has improved slightly from "poor" to "fair".

The table below shows the results for the three parameters that are used to determine the report card grade. Sample size is represented by "n".

| INDICATORS | 2008-2012 | 2013-2017 | GUIDELINE | INDICATOR DESCRIPTION |
|-----------------------------------|----------------------------|-----------------------------|-----------------------------------|---|
| Total Phosphorus (mg/L)* | 0.034 C (n=8) | 0.035 C (n=40) | 0.030 B Aquatic Life | Phosphorus is found in products such as fertilizer and detergents, and contributes to excess algal growth which creates low oxygen in streams and lakes. |
| Bacteria (# per 100 mL)** | 68.17 B (n=8) | 55.36 B (n=40) | 100 B Recreation | E.coli is a fecal coliform bacteria found in human and animal waste. It is a strong indicator of the potential to have organisms present that could harm human health. |
| Benthic Score FBI Index*** | 5.96 D (n=2) | 5.31 C (n=1) | <5.00 B Target Only | Benthic macroinvertebrates are small aquatic animals that live at the bottom of streams. These organisms are good indicators of water quality and are commonly used to diagnose watershed health. |

*75th percentile, MECP PWQMN data. Grades based on Conservation Ontario standards (2017). **Geometric mean, GSCA data. ***Average. Grades based on Conservation Ontario standards (2017).



D **FOREST
CONDITIONS:
POOR**

**TREND:
STABLE**



FOREST CONDITIONS

GRADING CHART:

A: EXCELLENT

B: GOOD

C: FAIR

D: POOR

F: VERY POOR

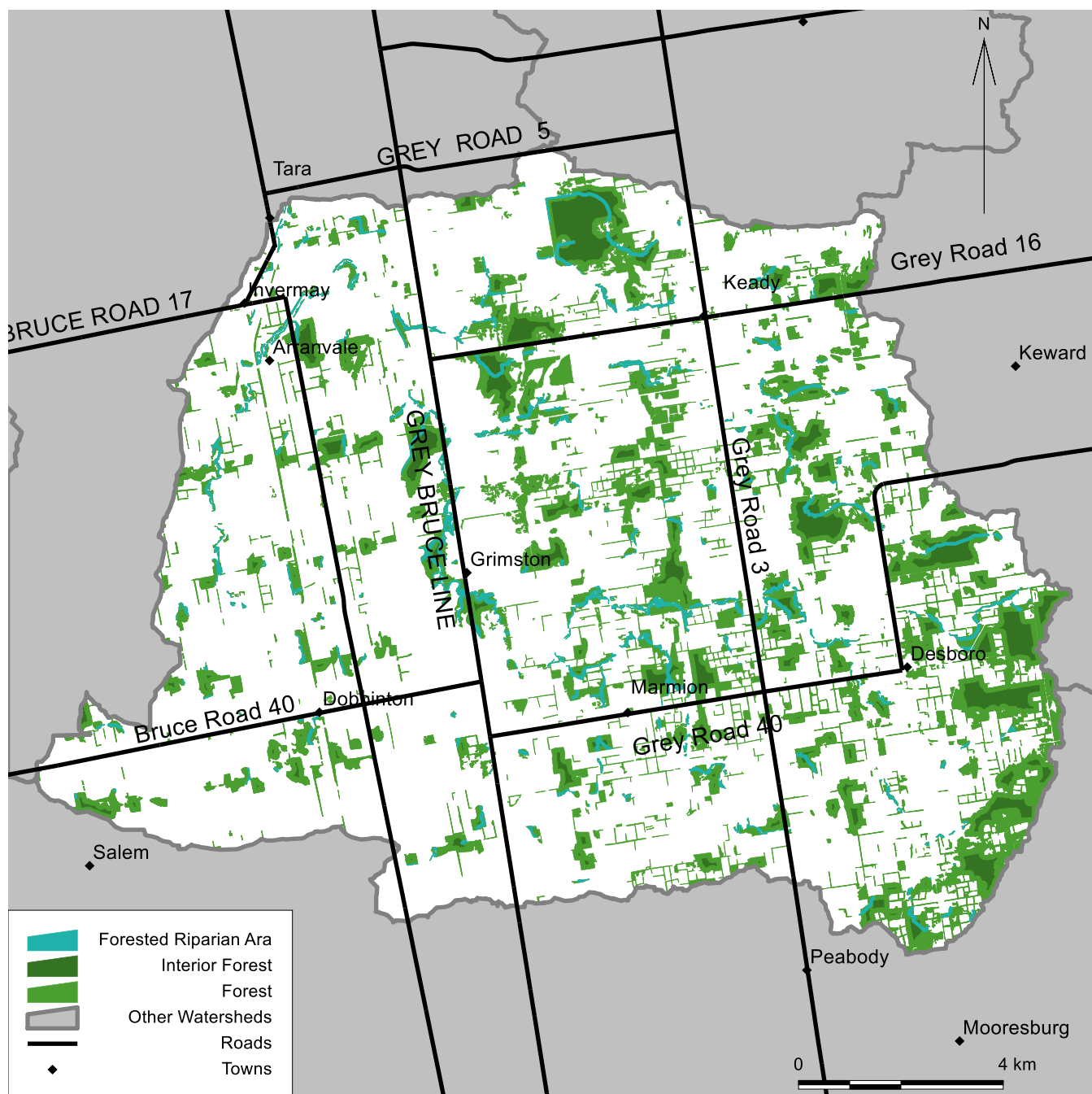
**INSUFFICIENT
DATA**

Forest cover is calculated by using up-to-date air photos and applying Geographic Information Systems (GIS) mapping and analysis techniques. It takes over 20 years for trees to become large enough to count towards the Subwatershed Health Review. Currently, GSCA has planted approximately 69.5 hectares of trees in this subwatershed.

Riparian and interior forests provide important habitats and wildlife corridors, making this a key area for conservation efforts and habitat protection. Forests Ontario, Alternative Land Use Services (ALUS) and GSCA have programs that provide subsidies and incentives for landowners to plant more trees. GSCA also assists landowners with the Managed Forest Tax Incentive Program, which allows landowners with 4 hectares or more to be eligible for a tax break.

This map shows overall forest cover, interior forest, and riparian forests on public and private properties throughout the subwatershed. The Upper Sauble subwatershed has some of the most productive farmland within the Grey Sauble jurisdiction. As a result, most of the forests have been cleared from the area. Total forest cover is graded a "C", but the patches are small and fragmented resulting in poor interior forest cover and poor forest cover along the waterways. The overall grade is a "D". Some tree planting has occurred within the watershed but improving the overall grade will be challenging. Any improvements to the overall tree coverage will be considered a huge benefit.

There are two GSCA properties in the Upper Sauble subwatershed, totaling 56 hectares of forest.



| INDICATORS | 2008-2013 | 2013-2018 | ECCC GUIDELINE** | INDICATOR DESCRIPTION |
|---------------------------------|------------|------------|------------------|--|
| % Forest Cover | 18.83 D | 18.85 D | 30 B | Forest cover is the percentage of the watershed that is forested. Watersheds should contain at least 30% forest cover to sustain native flora and fauna (ECCC, 2013). |
| % Forest Interior | 2.94 D | 2.84 D | 10 B | Forest interior is the remaining portion of a woodlot when a 100 metre buffer is removed. Forest interior provides native species with undisturbed habitat. |
| % Riparian Zone Forested | 22.38 D | 22.70 D | 50 B | Percent riparian zone forested is a measure of the amount of forest cover within a 30 m riparian/buffer zone adjacent to all open watercourses. Riparian zones protect water quality and provide important ecological services, habitat and movement corridors for wildlife. |

*Data based on 2015 colour air photography. **ECCC Guideline—Environment Canada guideline based on “How Much Habitat is Enough?” (2013). Grades based on Conservation Ontario standards (2017).



C **WETLAND
CONDITIONS:**
FAIR

TREND:
NO TREND



WETLAND CONDITIONS

GRADING CHART:

A: EXCELLENT

B: GOOD

C: FAIR

D: POOR

F: VERY POOR

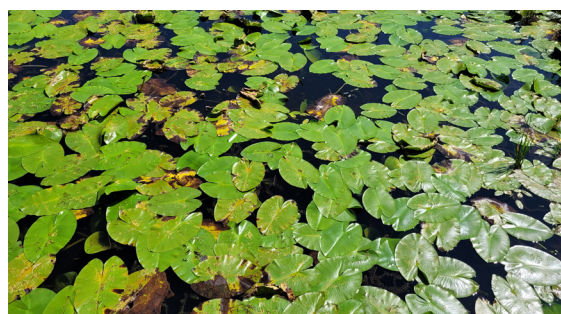
**INSUFFICIENT
DATA**

Wetlands are an important part of ecological function within a watershed. They provide many ecosystem services including: improving water quality by filtering runoff, assisting with flood control by storing water, and maintaining hydrological function during dry periods. Wetlands are also home to many rare species of flora and fauna.

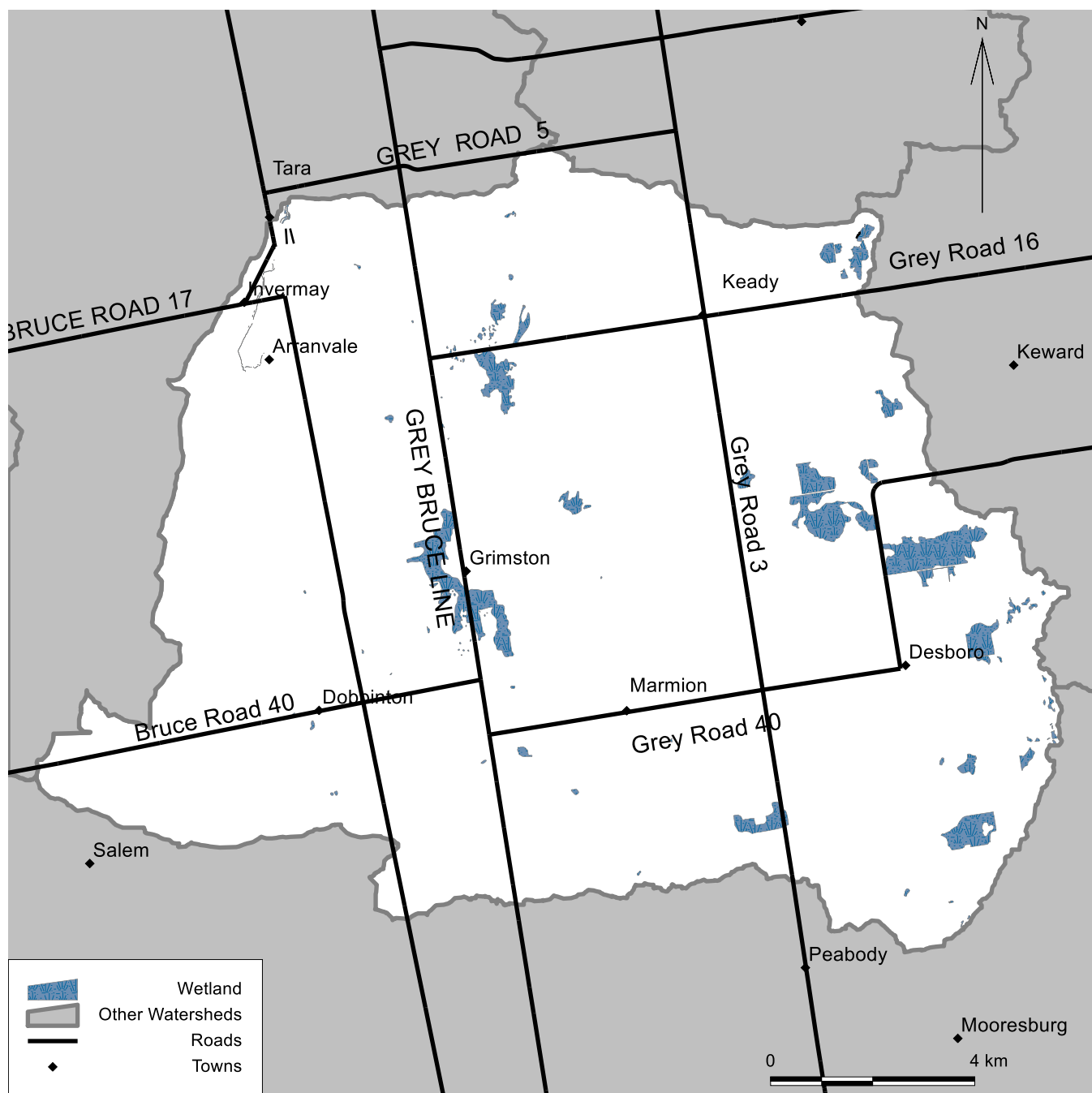
Wetland cover was calculated using up-to-date air photos and applying Geographic Information Systems (GIS) and analysis techniques. Grey Sauble staff are constantly working to improve wetland information on a local scale. Future updates to this data may occur after confirming actual wetland cover on the ground. Other changes to the existing wetland cover may result from drainage practices or wetland creation projects.

Coverage in this subwatershed is poor when compared to Environment and Climate Change Canada's habitat recommendations. The Upper Sauble subwatershed currently has 3% wetland cover, with the recommended coverage being 10%. It is important to protect these wetlands as it is extremely difficult to get them back once they are gone.

There are many threats to wetlands in Southern Ontario, including land conversion for development, drainage for agriculture and invasive species such as Phragmites. Organizations including Ducks Unlimited Canada, ALUS Grey Bruce and GSCA are interested in working with landowners to protect wetland features, deliver restoration efforts, and create new wetland habitat.



The Tara Wetland is a Provincially Significant Wetland located approximately 10 km upstream from the Village of Tara. This 131 hectare wetland, comprised of both swamp and marsh communities, is an important hydrologic feature and provides excellent wildlife habitat. It is home to several significant species, including Northern Pintail, Red Fox, numerous waterfowl species and also provides spawning habitat for Northern Pike.



| INDICATORS | 2013-2017* | ECCC GUIDELINE** | INDICATOR DESCRIPTION |
|--------------------------|------------------|------------------|--|
| Wetland Cover (%) | 3.27 C | 10 B | Percent wetland cover is the percentage of the watershed that is wetland cover. Wetlands include swamps (treed and thicket), bogs, fens and marshes. |

*Data based on 2015 colour air photography. **ECCC Guideline—Environment Canada guideline based on “How Much Habitat is Enough?” (2013) Grades based on Conservation Ontario standards (2017).



**GROUNDWATER
INFORMATION:**
INSUFFICIENT
DATA

TREND:
N/A



GROUNDWATER

GRADING CHART:

| | |
|--|------------------------------|
|  | A: EXCELLENT |
|  | B: GOOD |
|  | C: FAIR |
|  | D: POOR |
|  | F: VERY POOR |
|  | INSUFFICIENT DATA |

Groundwater is water that is stored in bedrock fractures or between sand/gravel layers in aquifers. Through the Provincial Groundwater Monitoring Network (PGMN) partnership with the Ministry of Environment, Conservation and Parks, GSCA monitors water levels and water quality in 10 wells annually within the Grey Sauble watershed. However, there are no PGMN wells in Upper Sauble subwatershed. There is insufficient information available to grade groundwater within this subwatershed.

Surficial Geology and Soils

The Upper Sauble subwatershed is dominated by stoney, sandy, silt till and is part of the Late Wisconsinian glacial formation.

Drinking Water Source Protection

The community of Tara has a large residential municipal groundwater system with three supply wells that are classified as Groundwater Under Direct Influence of Surface Water (GUDI). Under the direct influence of surface water means the groundwater source is located near a surface water source such as a lake or river and receives surface water recharge. Due to the influence of surface water, the groundwater source is considered at risk of contamination from pathogens such as E.coli, which are not common in deeper groundwater sources. The Tara wellhead protection area (WHPA) includes capture zones extend predominantly in an easterly direction to a maximum distance of approximately 3.7 km from the wells. Furthermore, a WHPA-E was delineated for Tara Well No. 3, which is located 50m from the Sauble River and its floodplain. Under flood conditions, areas are not only affected within the town of Tara but also further upstream. The WHPA-E extends 4.8 km in the upstream direction of the river flow and includes all tributaries within the 2-hour Time-of-Travel. A 120m setback or the regulation limit, and areas with agricultural tile drainage were added.

Wellhead Protection Areas (WHPA's)

Around each of these municipal wells are Wellhead Protection Areas (WHPA's). These areas highlight the time it takes for contaminants to reach drinking water, so it is important to monitor potential threats in these areas.

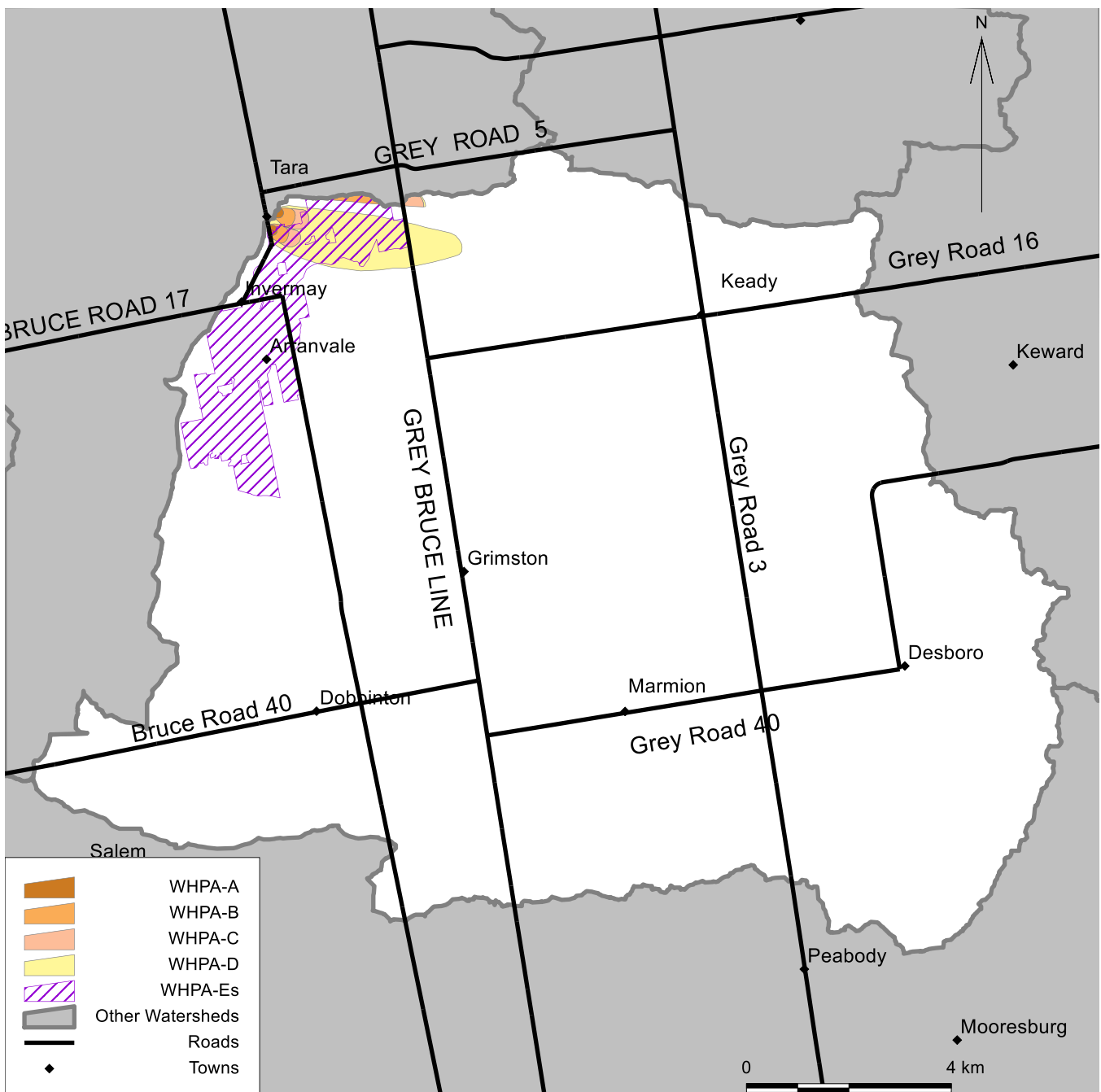
WHPA-A: 100 m radius around a municipal well

WHPA-B: Area where water can flow to the well in 2 years

WHPA-C: Area where water can flow to the well in 5 years

WHPA-D: Area where water can flow to the well is less than 25 years and not within WHPAs A, B or C

WHPA-E: Can only apply to GUDI wells, as it is the 2-hour time of travel within surface water that influences the well





ACTIONS FOR IMPROVEMENT

On the Shore

- Leave a minimum of 3 feet of native vegetation in place. Having a vegetated buffer helps to filter runoff, prevent erosion, maintain water levels, and deter waterfowl.
- Minimize fertilizer use to prevent excess nutrients from entering the lake.
- Learn how to identify and control invasive species.
- Regularly service your septic system.
- Decommission unused wells to prevent contaminants from entering groundwater.



On the Farm

- Improve water quality and habitat by fencing livestock out of streams.
- Maintain a vegetated buffer between crop land and waterways.
- Upgrade manure storage and barn eavestroughing to divert clean water.
- Reduce soil erosion through no-till, residue management and cover crops.
- Plant windbreaks to protect your soils.
- Reduce nutrient loss by implementing a nutrient management plan.
- Conserve water and minimize pesticide use.



In Town

- Leave a minimum of 3 feet of native vegetation along creeks and lakes. Plant native species to protect the shoreline and create habitat.
- Conserve water indoors and collect water outdoors using a rain barrel.
- Increase your land permeability by using rain gardens, mulch or permeable pavement.
- Minimize fertilizer use to prevent excess nutrients from entering streams.
- Dispose of chemicals properly and do not pour harmful substances down the drain as these outlet to local waterways.



For Municipalities and other Agencies

- Work together with GSCA on consistent planning regulations and adoption of bylaws that will protect watercourses, wetlands, and vegetated riparian buffers.
- Adopt your own environmental sustainability initiatives and community grants.
- Adopt Low Impact Development (LID) practices and promote natural designs (bio-swales, infiltration trenches, permeable pavement) and stormwater retrofits.
- Secure environmentally significant properties, specifically wetlands, shorelands and properties that will connect natural features.
- Ensure appropriate approvals and/or permits are obtained so that the approval authority can monitor for implementation of approval conditions.



ADDITIONAL SURFACE WATER QUALITY

In addition to the parameters used to grade the surface water quality section, a suite of other chemical parameters are tested through water samples, including: nitrate, chloride and total suspended solids. Nitrates may be present in water due to decay of plant or animal material, agricultural fertilizers, domestic sewage, or treated wastewater contamination, and geological formations containing soluble nitrogen compounds. The allowable limit for the protection of aquatic life is 550 mg/L short term, or 13 mg/L long term (CCME, 2012). The results shown in the above table indicate that nitrate concentrations are far below the allowable limit and have remained consistent over 15 years.

| CHEMICAL PARAMETERS | 2008-2012 | 2013-2017 |
|------------------------------|---------------|----------------|
| Nitrate (mg/L)*: | 2.16 (n=8) | 1.19 (n=40) |
| Chloride (mg/L)*: | N/A | 12 (n=39) |
| Particulate residue (mg/L)*: | N/A | 3 (n=39) |

Chloride occurs naturally in the environment in mineral deposits and therefore many surface water and groundwater sources are naturally saline. However, chloride may be added to surface water through anthropogenic sources such as: salting of roads, agricultural or industrial fertilizers and sewage treatment. The allowable limit for chlorides in freshwater is 640 mg/L short term and 120 mg/L long term (CCME, 2011). The results shown in the above table indicate that chloride concentrations are below the long-term allowable limit and have remained consistent over 15 years.

Total suspended solids (TSS) in healthy streams have levels that show less than a 25 mg/L increase over background levels for short-term events and less than a 5 mg/L increase over longer term exposures (CCME, 2002). Suspended matter consists of silt, clay, fine particles of organic and inorganic matter, soluble organic compounds, plankton, and other microscopic organisms. The amount and type of suspended solids in surface water directly relates to the turbidity, or clarity of the water (CCME, 2002). TSS results have stayed consistent over 15 years and are therefore indicative of a healthy stream.

Additional Benthic Scoring:

A benthic index is a way to convert biological data into a measure of water quality. The BioMAP Index is a more holistic index than Hilsenhoff Family Biotic Index (FBI) and may provide further insights into the benthic invertebrate community and surface water quality. The BioMAP Index requires the identification to the lowest practical level (genus or species) measures water quality based on the presence of sensitive species at the site. All species are ranked based on their sensitivity values and the average of the top 25% is used to determine the grade.

BioMAP attempts to classify watersheds as impaired, unimpaired or in transition based on the size of the watercourse: creek <4 m, stream 4-16 m, river 16-64 m. These classifications and how they relate to the report card grading scores can be found on page 15. The BioMAP Index is not commonly used by other Conservation Authorities due to the added identification requirements and the grading system used for the watersheds is unique to GSCA.

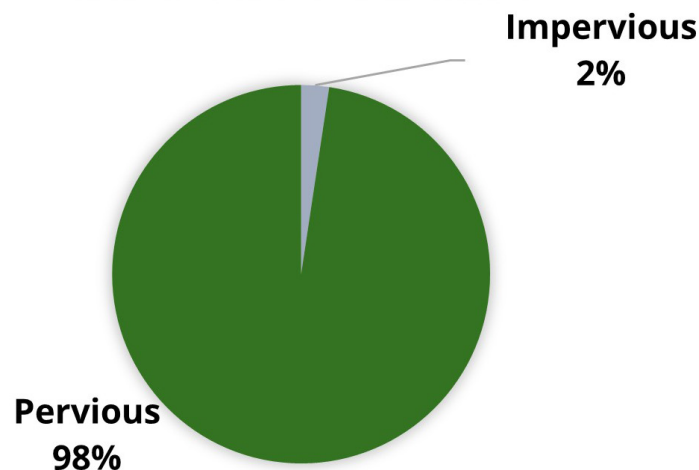
| | 2008-2012 | 2013-2017 | STREAM (4-16M) | GUIDELINE |
|------------------------------------|--------------------|--------------------|--|-----------------------|
| Benthic Score BioMAP*(Qualitative) | 3.22 B (n=1) | 3.06 B (n=3) | A=>3.4 B=>3.0 C=2.4-3.0 D=<2.4 F=<2.0 | >3.0 B Target Only |

Canadian Council of Ministers of the Environment. (2012). Nitrate Fact Sheet. Retrieved online from, <http://ceqg-rcqe.ccme.ca/download/en/197/>
Canadian Council of Ministers of the Environment. (2011). Chloride Fact Sheet. Retrieved online from, <http://ceqg-rcqe.ccme.ca/download/en/337/>
Canadian Council of Ministers of the Environment. (2002). Total Particulate Matter. Retrieved online from, <http://ceqg-rcqe.ccme.ca/download/en/217/>
Griffiths, R. (1999). BioMAP: Bioassessment of Water Quality. Niagara College: Canada: The Centre for Environmental Training.

ADDITIONAL WATERSHED FEATURES

LAND PERMEABILITY

299.94 km
of watercourses



463 ha

AREAS OF NATURAL AND
SCIENTIFIC INTEREST (ANSI)
For Example: Dobbington
Esker and Tara Moraine



Rare Species

Brook Trout

Invasive Species

Phragmites, Giant
Hogweed, Wild Parsnip

Fish Species

Blacknose Dace,
Blackside Darter,
Bluntnose Minnow, Brook
Stickleback, Brook Trout,
Central Mudminnow,
Common Shiner etc.

Potential Stressors

Golf course irrigation,
quarry activities,
agricultural run-off,
failing septic systems



Stewardship

In 2017, GSCA received a grant from the Ministry of Environment, Conservation and Parks Great Lakes Guardian Community Fund to implement clean water projects in the Village of Tara. This funding allowed for 1635 m of fencing to be installed along the Sauble River, preventing cattle from accessing surface water.

In the past, the Cleaning Up Rural Beaches program also focused on stewardship initiatives along the Sauble River to help limit E.coli along Lake Huron's beaches. These programs have been essential for implementing agricultural Best Management Practices for water quality.

REFERENCES FOR HEALTH REVIEW GRADING

The below tables were developed by Conservation Ontario and the Watershed Report Card Working Group. The exception to the water quality table is the column representing BioMAP, which was developed by GSCA. These tables show how the grades were determined for each category. Points are awarded per category based on the grade and the final grade is based on an average of all points.



| Total Phosphorus (mg/L) | E.coli (#/100 mL) | Benthic | Benthic Invertebrates (BioMAP) | Point Score | Grade | Overall Surface Water Quality Grade | |
|-------------------------|-------------------|------------|---|-------------|-------|-------------------------------------|-------------|
| | | | | | | Final Points | Final Grade |
| <0.020 | 0-3 | 0.00-4.25 | Creek (<4m) 4.0 Stream (4-16m) >3.4 River (16-64m) >3.0 | 5 | A | >4.4 | A |
| 0.020-0.030 | 31-100 | 4.26-5.00 | Creek (<4m) >3.4 Stream (4-16m) >3.0 River (16-64m) >2.4 | 4 | B | 3.5-4.4 | B |
| 0.031-0.060 | 101-300 | 5.01-5.75 | Creek (<4m) 3.4-3.2 Stream (4-16m) 3.0-2.6 River (16-64m) 2.4-2.0 | 3 | C | 2.5-3.4 | C |
| 0.061-0.180 | 301-1000 | 5.76-6.50 | Creek (<4m) <3.2 Stream (4-16m) <2.6 River (16-64m) <2.0 | 2 | D | 1.5-2.4 | D |
| >0.180 | >1000 | 6.51-10.00 | Creek (<4m) <2.6 Stream (4-16m) <2.0 River (16-64m) <1.5 | 1 | F | <1.5 | F |



| % Forest Cover | % Interior Forest | % Riparian Forest | Point Score | Grade | Overall Forest Conditions | |
|----------------|-------------------|-------------------|-------------|-------|---------------------------|-------------|
| | | | | | Final Points | Final Grade |
| >35.0 | >11.5 | >57.5 | 5 | A | >4.4 | A |
| 25.1-35.0 | 8.6-11.5 | 42.6-57.5 | 4 | B | 3.5-4.4 | B |
| 15.1-25.0 | 5.6-8.5 | 27.5-42.5 | 3 | C | 2.5-3.4 | C |
| 5.0-15.0 | 2.5-5.5 | 12.5-27.5 | 2 | D | 1.5-2.4 | D |
| <5.0 | <2.5 | <12.5 | 1 | F | <1.5 | F |



| Grade | % Wetland Cover |
|-------|-----------------|
| A | >11.5 |
| B | 8.6-11.5 |
| C | 5.6-8.5 |
| D | 2.5-5.5 |
| F | <2.5 |



What is a Conservation Authority?

Conservation authorities are local agencies that operate at a watershed-scale to protect, manage, and conserve natural resources and share an appreciation of the environment with others. Through partnerships in communities across Ontario, conservation authorities are able to help protect people and property from natural hazards like flooding and erosion and address specific environmental challenges we face locally.



GSCA is one of 36 Conservation Authorities Across Ontario

Over 13 million people, approximately 95% of Ontario's population live in areas that are managed by conservation authorities (CAs).

Guided by the Conservation Authorities Act of 1946, which was recently updated in 2017, Ontario's CAs are charged with the responsibility of "ensuring the conservation, restoration, development and management of Ontario's natural resources through programs that balance human, environmental and economic needs."

Member of



**Conservation
ONTARIO**
Natural Champions

Grey Sauble Conservation Authority (GSCA) is not responsible for, and cannot guarantee, the accuracy of all the information contained within the maps. All of the included mapping is made available "AS IS", "AS AVAILABLE", and "WITH ALL FAULTS" without representations or warranties of any kind, either express or implied, as to the accuracy, completeness, reliability, currency, merchantability, fitness for purpose, title or otherwise. The entire risk as to the results and performance of the Map Products is assumed by the user. Produced by GSCA with Data supplied under License by Members of the Ontario Geospatial Data Exchange. Includes Material [2021] of the © Queen's Printer for Ontario and its licensors. All rights reserved. May not be reproduced without permission. THIS IS NOT A PLAN OF SURVEY.



THANK YOU

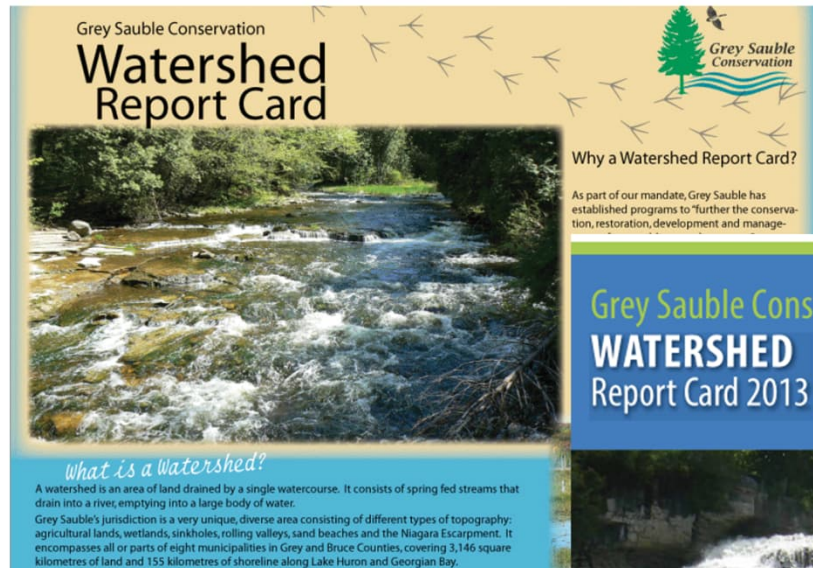
To all the landowners, community groups, schools,
businesses, municipalities and other government
agencies who value watershed health and support
our efforts to monitor and protect it!



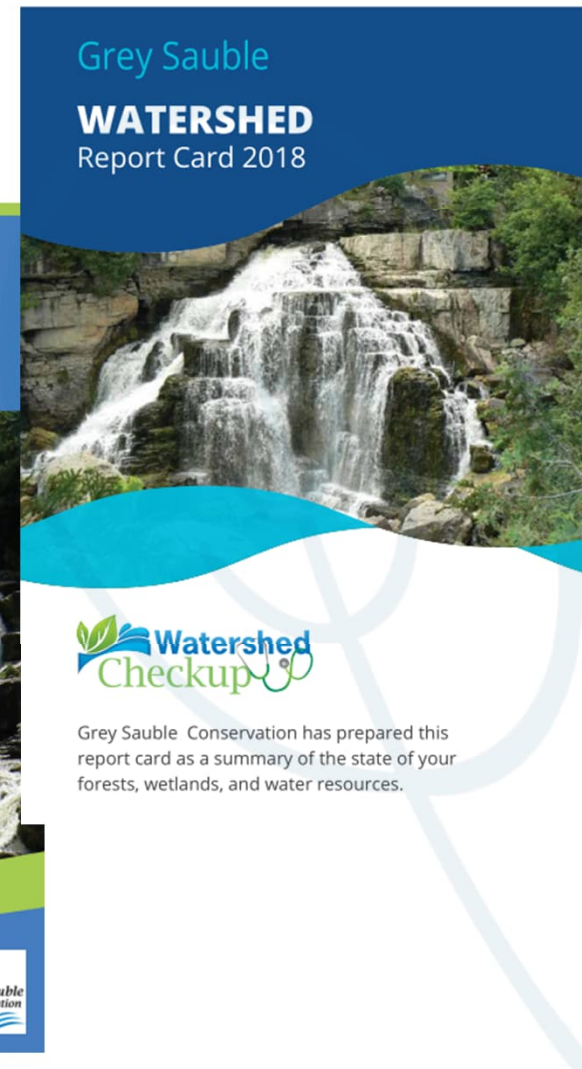
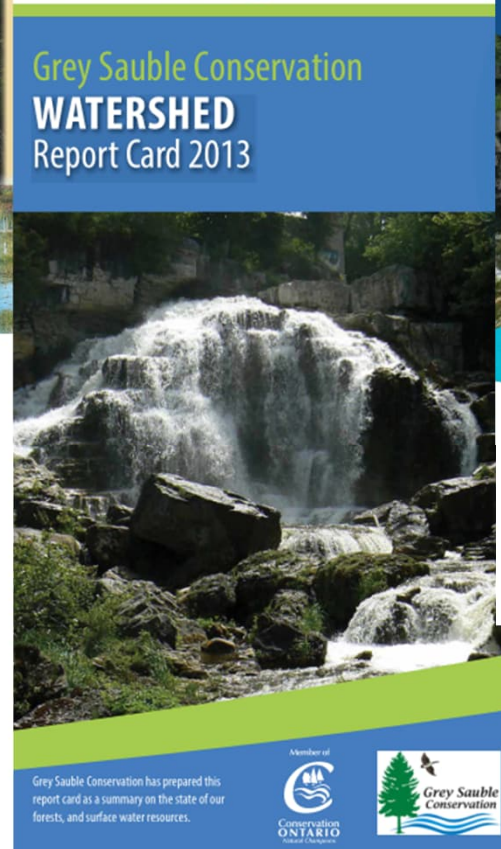


2023 Report Cards

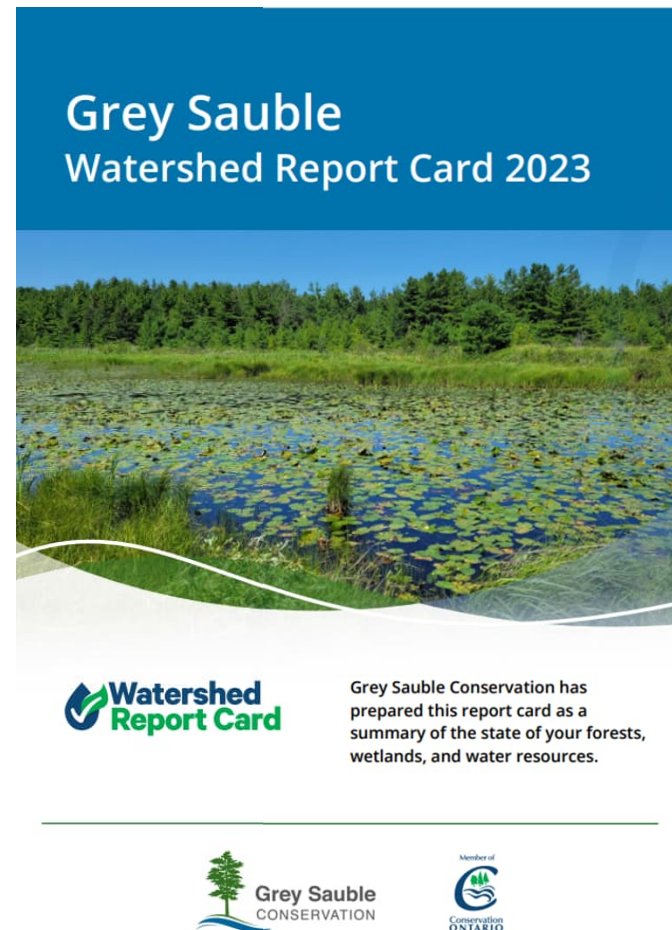
Past Report Cards – released every 5 years



2008

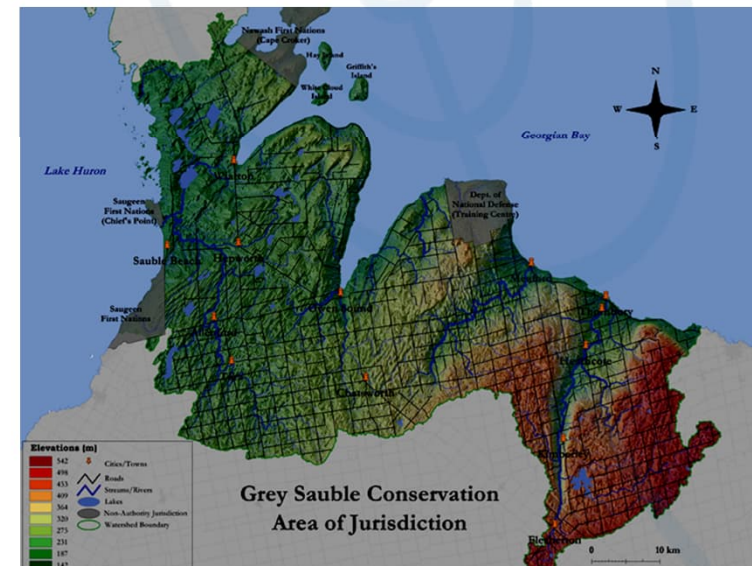
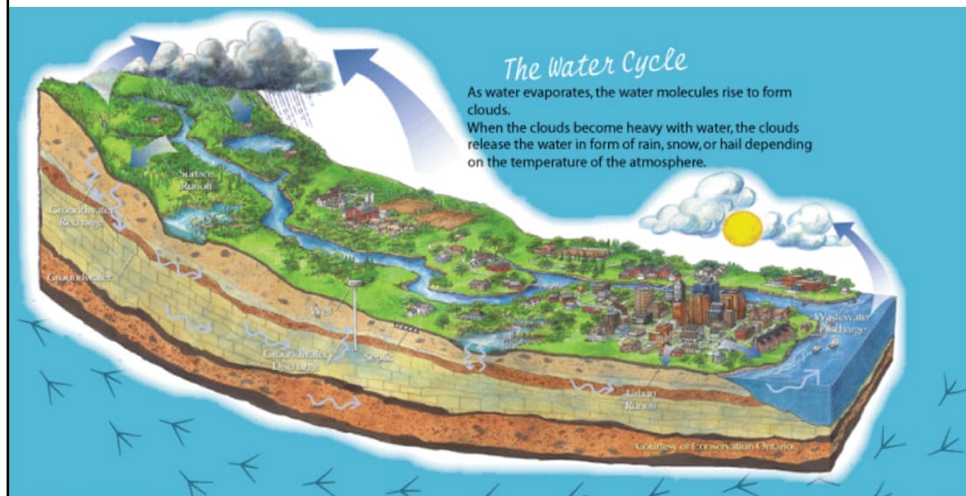


2023 Report Cards



Reporting – Why Watersheds?

- Watersheds are definable areas
- Produces an end product – water
- Water can be described chemically or biologically (use of well-known indicators)
- Limited tolerance for stress i.e., reflect change



What could we evaluate?

❖ **Must be measurable and have established targets**

- Forest Cover
- Interior Forest
- Forest Connectivity
- Forest Shapes/Sizes
- Riparian Forest Cover
- Landuse
- Dams/Barriers
- Constructed drains
- Wetlands
- Fish
- Wildlife
- Benthic
- Species at Risk
- Ecological Diversity
- Invasive Species
- Water Chemistry
- E. coli
- Etc.

Forest Cover

❖ Represented as the percent of area covered by forest

- Minimum of **25 – 35%** required to ecologically sustain native flora and fauna (Environment Canada)
- Data available digitally
- Easily calculated using GIS software
- Not watershed based but meaningful on a watershed basis
- Changes over time (digital data may be out of date – big job to update info)
- Takes approximately 25 years for a seedling to be counted



Interior Forest Cover Grading

- ❖ **Represented as the percent of area covered by forest after removing 100m from the forest edge**
- Minimum of **10%** required to ecologically sustain native flora and fauna (Environment Canada)
- Data available digitally
- Easily calculated using GIS software
- Not watershed based but meaningful on a watershed basis
- Changes over time (digital data may be out of date – big job to update info)



Riparian Area Forest Cover Grading

- ❖ **Represented as the percent of riparian area covered by trees (not the same as “naturally vegetated”)**
- Within 30m of water feature, a minimum of **50%** of the area should be forested to sustain the ecological function of the water feature
- Data available digitally
- Easily calculated using GIS software
- Directly impacts on water quality and stream ecology
- Provides Wildlife Corridors
- Changes over time (digital data may be out of date – big job to update info)
- Focus of Stewardship Programs

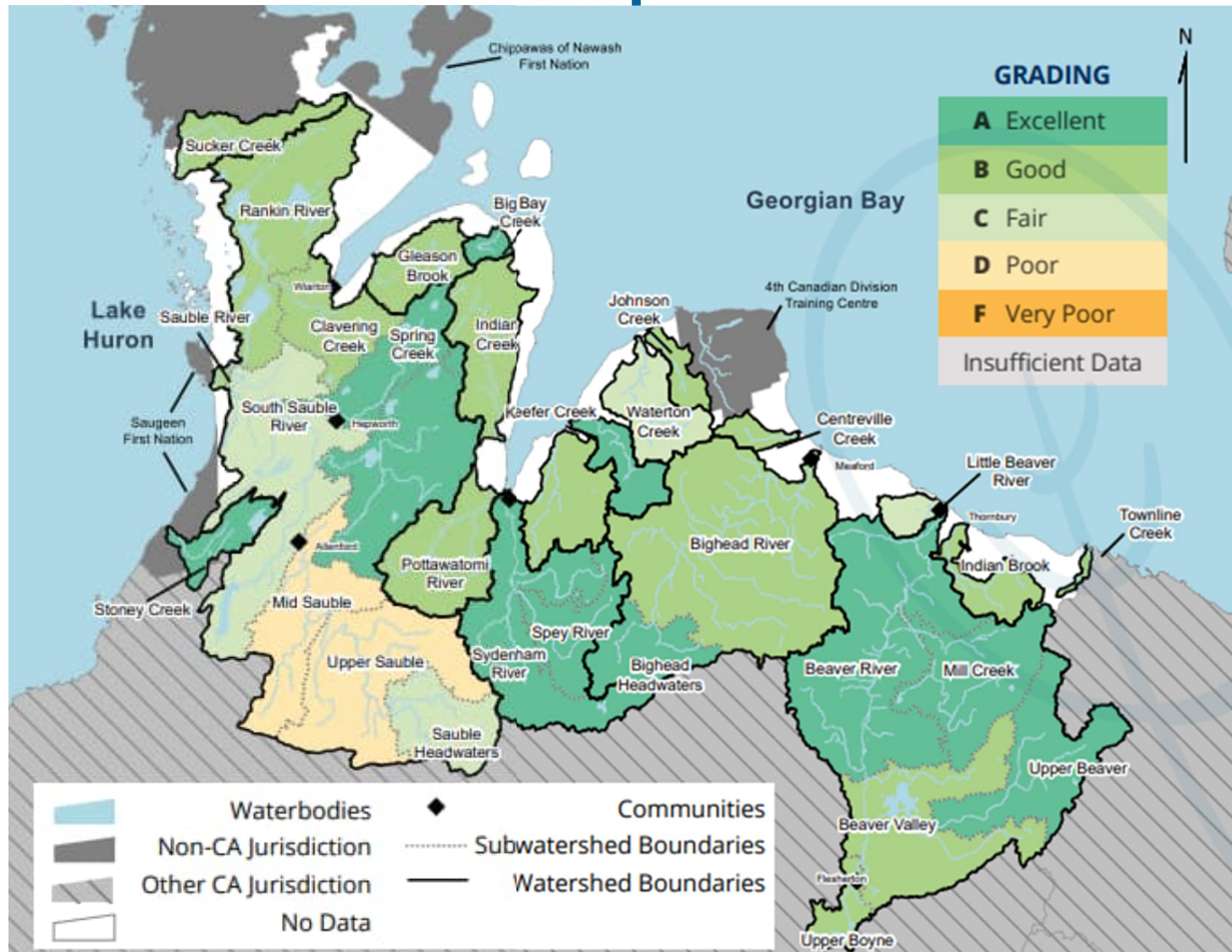


Overall Forest Conditions Grading

❖ Targets for each category = “B” Grade

| | | | | | Overall Forest Conditions | |
|----------------|-------------------|--------------------------|-------------|-------|---------------------------|-------------|
| % Forest Cover | % Forest Interior | % Riparian Zone Forested | Point Score | Grade | Final Points | Final Grade |
| >35.0 | >11.5 | >57.5 | 5 | A | >4.4 | A |
| 25.1 - 35.0 | 8.6 - 11.5 | 42.6 - 57.5 | 4 | B | 3.5 - 4.4 | B |
| 15.1 - 25.0 | 5.6 - 8.5 | 27.6 - 42.5 | 3 | C | 2.5 - 3.4 | C |
| 5.0 - 15.0 | 2.5 - 5.5 | 12.5 - 27.5 | 2 | D | 1.5 - 2.4 | D |
| <5.0 | <2.5 | <12.5 | 1 | F | <1.5 | F |

Forest Conditions Map



Water Chemistry and E.coli

❖ Laboratory analysis of water samples

- Sampling is easy and convenient
- Analysis gives exact concentrations (not cheap – must be sent to lab)
- Water Chemistry changes depending on time of day, season, flows, rain events, etc. – need lots of samples
- Government has some water chemistry objectives for surface water (related to recreation and toxicity to aquatic organisms)
- Total Phosphorous selected since its concentration correlates with land use activities (MECP has objective of 0.03 mg/l for flowing systems and 0.02 mg/l for lakes)
- E.coli targets for public swimming safety (<100 count/100ml)



Benthic Sampling

❖ **Invertebrates >0.5mm living part of their lives in the stream bed (i.e. insect larvae, crayfish, etc., but not fish)**

- Sampling is easy and can be done once a year
- Requires identification (Family Level)
- Good for use as indicators - must survive all seasons
- Easy to store (for future reference)
- Well studied – lots of ways to summarize results
- Modified Hilsenhoff Family Biotic Index (FBI) – Families are scored 0-10 based on their tolerance to organic pollution

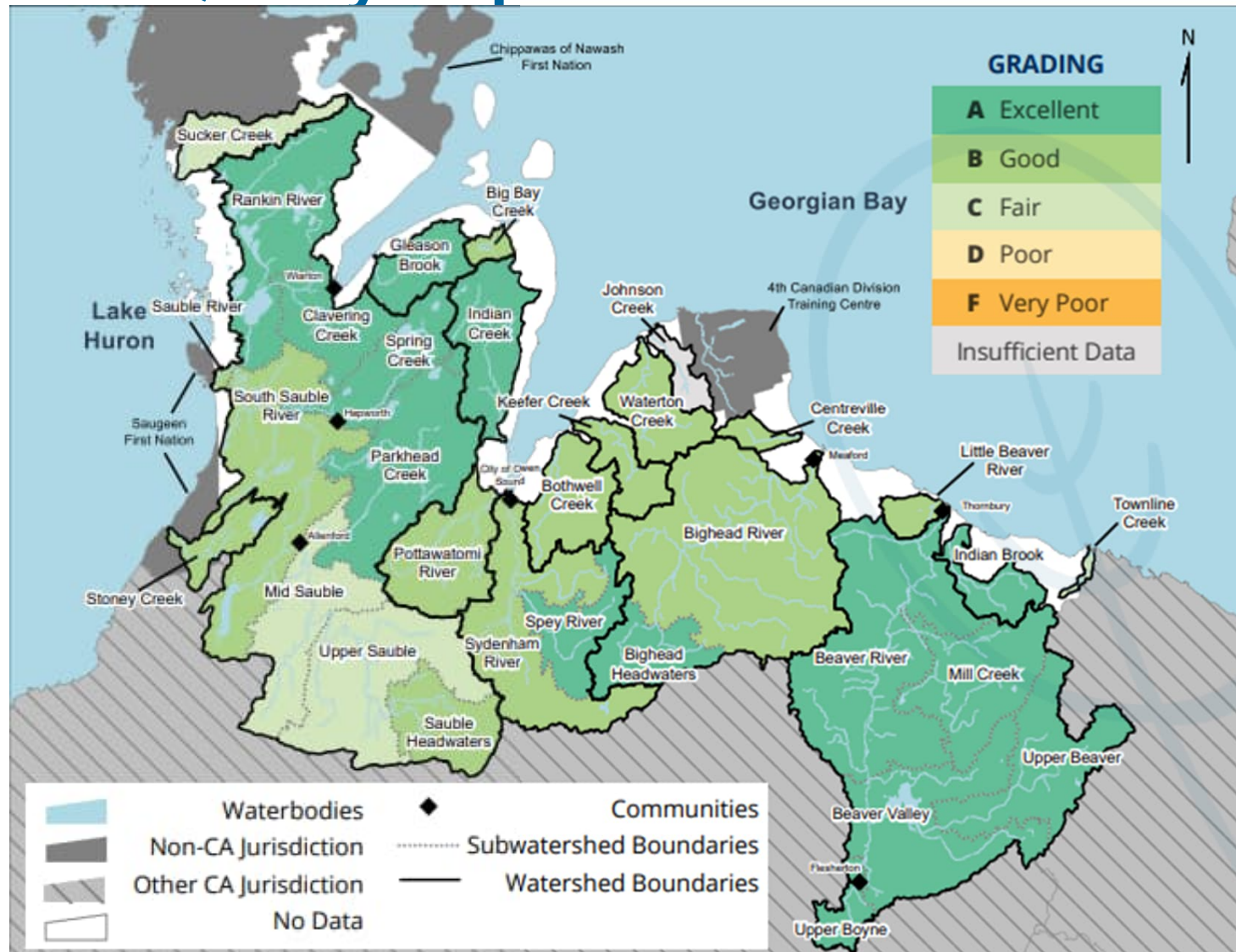


Water Quality Grading

❖ Targets for each category = “B” Grade

| Total Phosphorus (mg/L) | <i>E. coli</i> (#100 mL) | Benthic Invertebrates (Modified Family Biotic Index – based on New York State tolerance values) | Point Score | Grade | Overall Surface Water Quality Grade | |
|-------------------------|--------------------------|--|-------------|-------|-------------------------------------|-------------|
| | | | | | Final Points | Final Grade |
| <0.020 | 0-30 | 0.00 - 4.25 | 5 | A | >4.4 | A |
| 0.020 - 0.030 | 31 - 100 | 4.26 - 5.00 | 4 | B | 3.5 - 4.4 | B |
| 0.031 - 0.060 | 101 - 300 | 5.01 - 5.75 | 3 | C | 2.5 - 3.4 | C |
| 0.061 - 0.180 | 301 - 1000 | 5.76 - 6.50 | 2 | D | 1.5 - 2.4 | D |
| >0.180 | >1000 | 6.51 - 10.00 | 1 | F | <1.5 | F |

Water Quality Map



Wetland Cover

❖ Represented as the percent of area covered by wetlands

- Minimum of **10%** recommended (Environment Canada)
- Data available digitally
- Easily calculated using GIS software
- Meaningful on a watershed basis
- Changes over time (digital data may be out of date – big job to update info)
- Once lost, difficult to regain



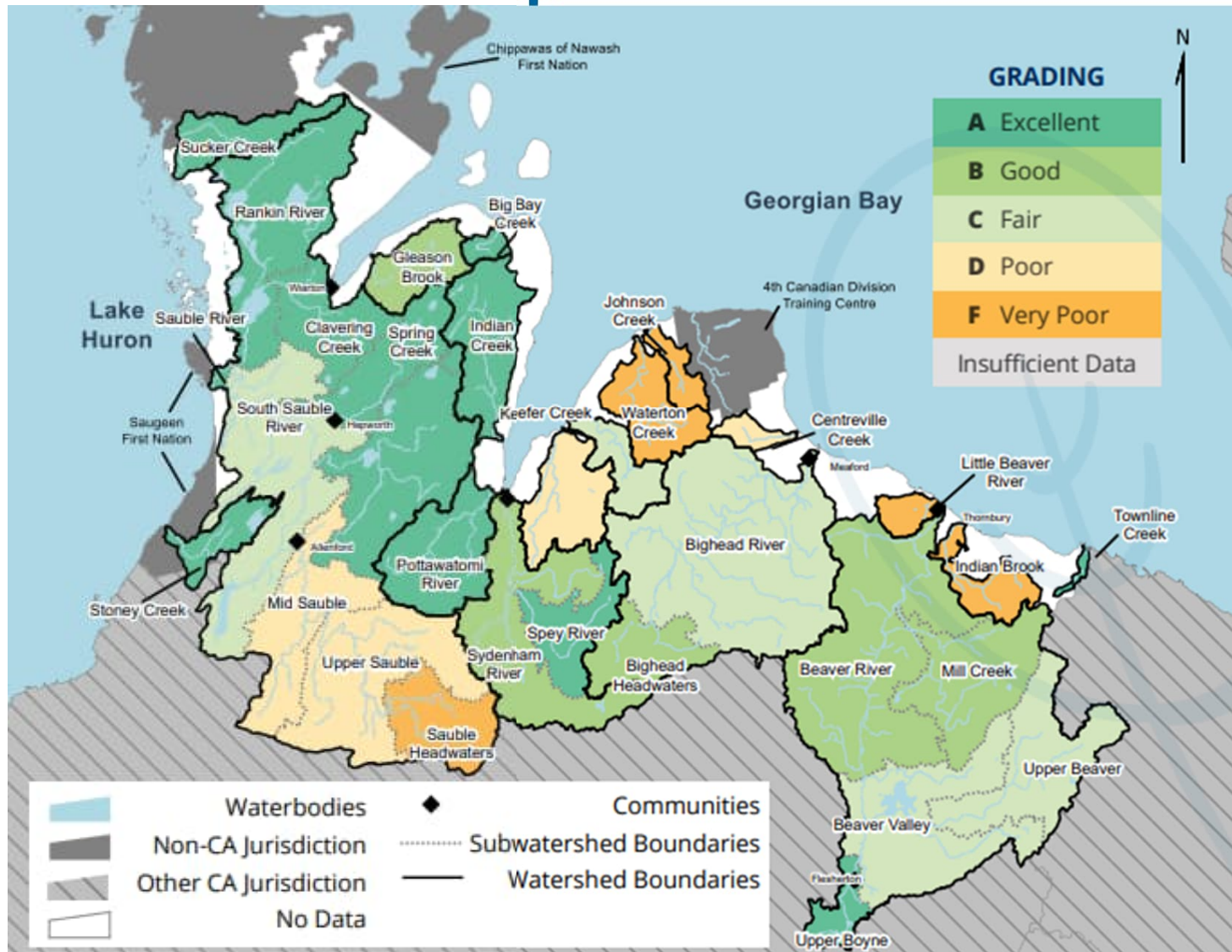
Wetland Cover Grading

❖ Targets for category = “B” Grade



| Grade | % Wetland Cover |
|-------|-----------------|
| A | >11.5 |
| B | 8.6-11.5 |
| C | 5.6-8.5 |
| D | 2.5-5.5 |
| F | <2.5 |

Wetland Cover Map



2023 Report Cards

| Watershed Name | Subwatershed Name | Forest Conditions Grade | Wetland Conditions Grade | Surface Water Grade |
|---------------------|---------------------|-------------------------|--------------------------|---------------------|
| Big Bay Creek | Big Bay Creek | A | A | B |
| Beaver River | Beaver River | A | B | A |
| Beaver River | Beaver Valley | B | C | A |
| Beaver River | Upper Beaver | A | C | A |
| Beaver River | Mill Creek | A | B | A |
| Beaver River | Upper Boyne | B | A | A |
| Bighead River | Bighead Headwaters | A | B | A |
| Bighead River | Bighead River | B | C | B |
| Bothwell Creek | Bothwell Creek | B | D | B |
| Centreville Creek | Centreville Creek | B | D | B |
| Gleason Brook | Gleason Brook | B | B | A |
| Indian Brook | Indian Brook | B | F | A |
| Indian Creek | Indian Creek | B | A | A |
| Johnson Creek | Johnson Creek | B | F | N/A |
| Keefer Creek | Keefer Creek | A | C | B |
| Little Beaver River | Little Beaver River | C | F | B |
| Pottawatomie River | Pottawatomie River | B | A | B |
| Sauble River | South Sauble River | C | C | B |
| Sauble River | Sauble River | B | A | B |
| Sauble River | Mid Sauble | D | D | C |
| Sauble River | Upper Sauble | D | D | C |
| Sauble River | Sauble Headwaters | C | F | B |
| Sauble River | Parkhead Creek | A | A | A |
| Sauble River | Clavering Creek | B | A | A |
| Sauble River | Spring Creek | A | A | A |
| Sauble River | Rankin River | B | A | A |
| Stoney Creek | Stoney Creek | A | A | B |
| Sucker Creek | Sucker Creek | B | A | C |
| Sydenham River | Sydenham River | A | B | B |
| Sydenham River | Spey River | A | A | A |
| Townline Creek | Townline Creek | B | A | C |
| Waterton Creek | Waterton Creek | C | F | B |

Watershed Reports - Conservation Authority Map - Windows Internet Explorer

http://www.watershedcheckup.ca/conservation-authority-map

File Edit View Favorites Tools Help

☆ Favorites ☆ Great Lakes Water Levels ☆ Tides Currents and Water L... EC Flows Watershed Reports Shell Digital Battery, Laptop PC A... Hydrology and statistical so... Google

Watershed Reports - Conservation Authority Map

Why Report? Benefits of Healthy Watersheds How Are We Monitoring

Resource Categories & Indicators Stewardship Counts What Can You Do?

Ontario Conservation Authorities

Click on a Conservation Authority to view it's Watershed Report Card

Internet 100%



Grey Sauble Watershed Report Card 2023



Grey Sauble Conservation has prepared this report card as a summary of the state of your forests, wetlands, and water resources.



WHERE ARE WE?



What is a Watershed?

A watershed is an area of land drained by a creek or stream into a river which then drains into a body of water such as a lake or pond. Everything in a watershed is connected. Our actions upstream can affect conditions downstream.

Why Measure?

Measuring helps us better understand our watershed. We can target our work where it is needed and track progress. We measured:



Surface
Water Quality



Forest
Conditions



Wetland
Conditions

What is a watershed report card?

Ontario's Conservation Authorities report on watershed conditions every five years. The watershed report cards use Conservation Ontario guidelines and standards developed by conservation authorities and their partners.

A five-year cycle allows time to understand potential problems, to work with municipalities, environmental organizations, and the public to measurably improve watershed health, and gather enough data to provide a reliable summary of watershed conditions.

For more details about the information found in this document, visit www.greysauble.on.ca or contact us directly. You can find our contact information on the back panel.

GRADING

A Excellent

B Good

C Fair

D Poor

F Very Poor

Insufficient Data

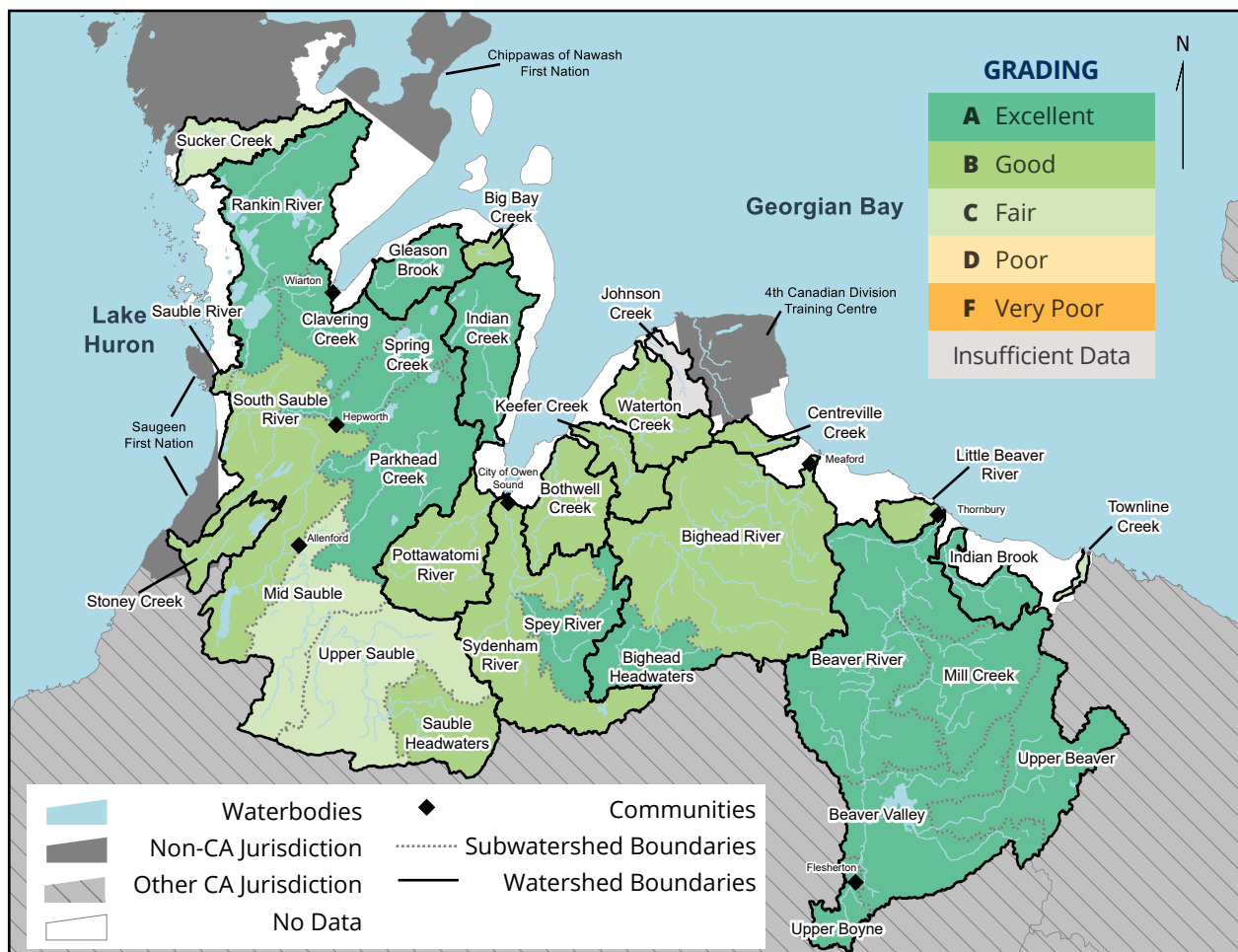


Grey Sauble SURFACE WATER QUALITY

Total phosphorus and Escherichia coli (bacteria) were measured at sampling sites throughout the watersheds. The type and number of Benthic invertebrates (small aquatic animals living in the sediment) were also identified. The type and quantity of these animals indicate pollution levels and stream health as measures of water quality. High surface water quality supports safe drinking water and provides social, economic, and health benefits to people and wildlife.

What Did We Find?

- Water quality grades are high with most watersheds achieving a grade of excellent or good.
- Watersheds that have a lower water quality grade typically have poor forest cover grades as well, specifically poor treed riparian areas along watercourses.
- Ongoing efforts are necessary to maintain high water quality grades and improve areas that have lower grades.



For a list of letter grades for each watershed, see page 6.

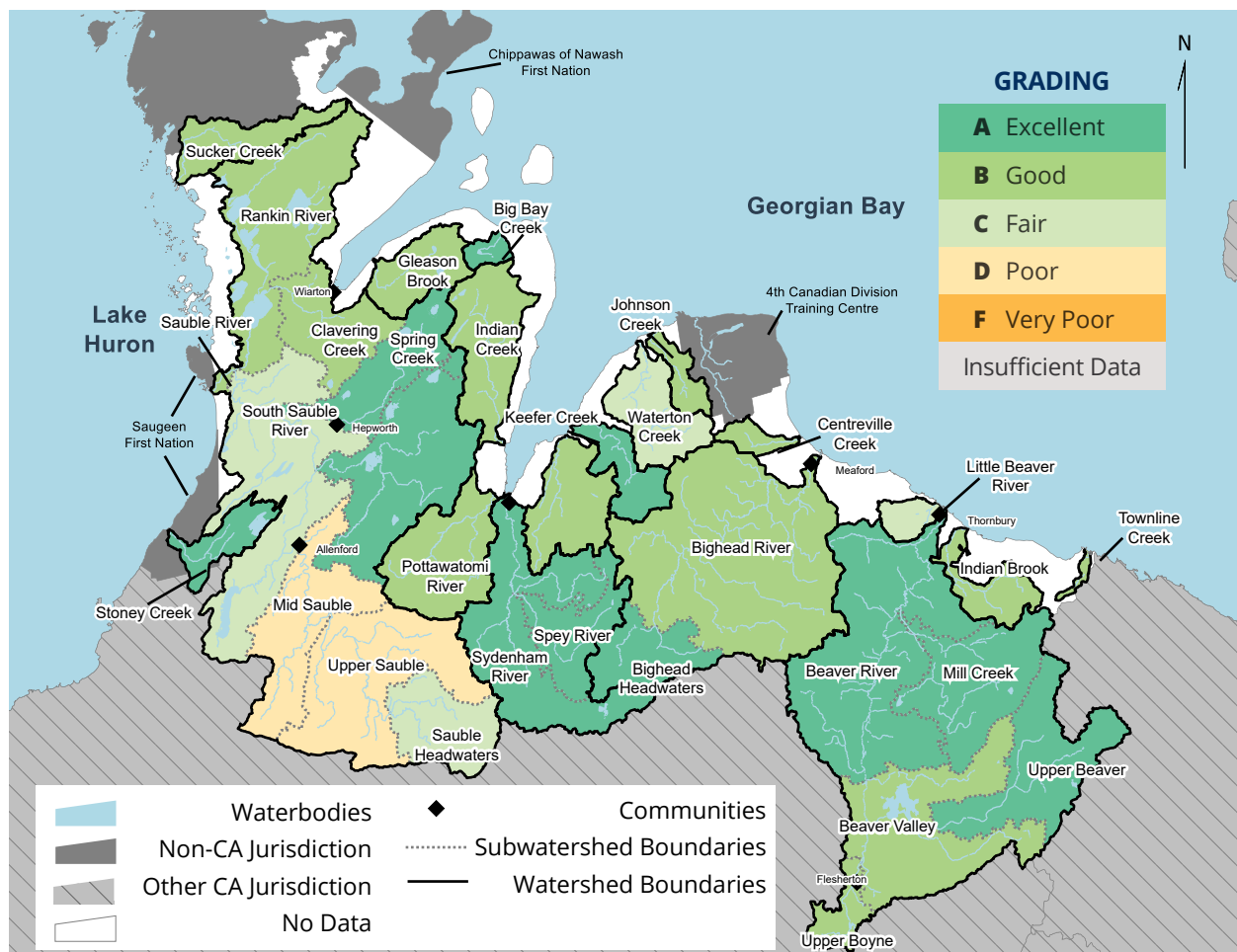


Grey Sauble FOREST CONDITIONS

Geographic Information Systems (GIS) technology was used to assess forest conditions in the watersheds. The three indicators measured were percentage of forest cover, forest interior, and riparian cover (forest cover within 30 m of watercourse). Forest interior provides habitat for many species that don't survive in smaller treed areas and riparian cover cools water for native fish, prevents erosion, and reduces contaminants entering streams.

What Did We Find?

- Forest conditions grades are generally good to excellent.
- In areas with more intensive agriculture, forest condition grades are lower.
- Forest cover grades take time to improve because after trees are planted it can take several years before they form a measurable tree canopy.



For a list of letter grades for each watershed, see page 6.

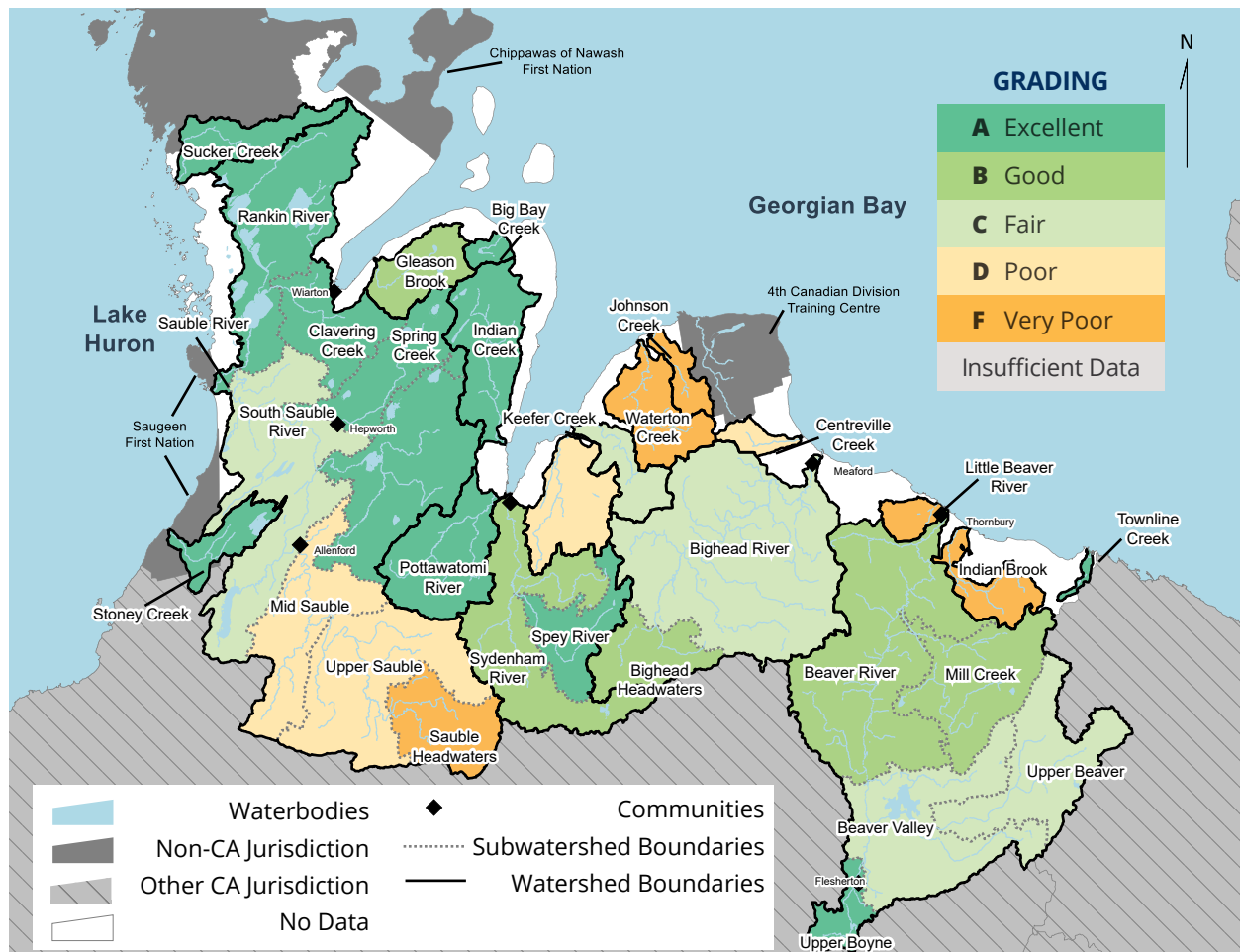


Grey Sauble WETLAND CONDITIONS

The percentage of wetland cover was measured using Geographic Information Systems (GIS) technology. Wetlands provide many ecosystem services including improving water quality by filtering runoff, assisting with flood control by storing water, and maintaining hydrological functions during dry periods. Wetlands are also home to many species of plants and animals.

What Did We Find?

- Most of the larger watersheds score very well.
- Some of the smaller watersheds with higher elevation have poor wetland coverage.
- Drainage improvements for agriculture likely has the greatest impact on wetland coverage.
- It is important to maintain our current wetlands because it is very difficult to increase wetland coverage once it is gone.



For a list of letter grades for each watershed, see page 6.

OUR WATERSHED GRADES



| Watershed Name | Subwatershed Name | Forest Conditions Grade | Wetland Conditions Grade | Surface Water Grade |
|---------------------|---------------------|-------------------------|--------------------------|---------------------|
| Big Bay Creek | Big Bay Creek | A | A | B |
| Beaver River | Beaver River | A | B | A |
| Beaver River | Beaver Valley | B | C | A |
| Beaver River | Upper Beaver | A | C | A |
| Beaver River | Mill Creek | A | B | A |
| Beaver River | Upper Boyne | B | A | A |
| Bighead River | Bighead Headwaters | A | B | A |
| Bighead River | Bighead River | B | C | B |
| Bothwell Creek | Bothwell Creek | B | D | B |
| Centreville Creek | Centreville Creek | B | D | B |
| Gleason Brook | Gleason Brook | B | B | A |
| Indian Brook | Indian Brook | B | F | A |
| Indian Creek | Indian Creek | B | A | A |
| Johnson Creek | Johnson Creek | B | F | N/A |
| Keefer Creek | Keefer Creek | A | C | B |
| Little Beaver River | Little Beaver River | C | F | B |
| Pottawatomi River | Pottawatomi River | B | A | B |
| Sauble River | South Sauble River | C | C | B |
| Sauble River | Sauble River | B | A | B |
| Sauble River | Mid Sauble | D | D | C |
| Sauble River | Upper Sauble | D | D | C |
| Sauble River | Sauble Headwaters | C | F | B |
| Sauble River | Parkhead Creek | A | A | A |
| Sauble River | Clavering Creek | B | A | A |
| Sauble River | Spring Creek | A | A | A |
| Sauble River | Rankin River | B | A | A |
| Stoney Creek | Stoney Creek | A | A | B |
| Sucker Creek | Sucker Creek | B | A | C |
| Sydenham River | Sydenham River | A | B | B |
| Sydenham River | Spey River | A | A | A |
| Townline Creek | Townline Creek | B | A | C |
| Waterton Creek | Waterton Creek | C | F | B |

OUR WATERSHED FEATURES



The Grey Sauble Watershed

Grey Sauble Conservation has a unique watershed jurisdiction that encompasses approximately 4000 sq km and consists of 5 major watersheds and many smaller watersheds that outlet directly to Lake Huron and Georgian Bay. The watershed includes 185 km of shoreline and spans 8 municipalities:

- City of Owen Sound
- Municipality of Arran-Elderslie
- Municipality of Grey Highlands
- Municipality of Meaford
- The Town of the Blue Mountains
- Town of South Bruce Peninsula
- Township of Chatsworth
- Township of Georgian Bluffs



Unique Topographical Features

The topography of the watershed includes both sandy and rocky beaches, flat agricultural lands, the Niagara Escarpment, rolling hills, and karst features that are characterized by shallow soil over fractured bedrock and underground drainage systems.

WHAT ARE OUR WATERSHED'S KEY ISSUES?



Non-point Source Pollution

- Non-point source pollution comes from many sources throughout the watersheds.
- It occurs when rain or snowmelt runs off fields, streets, or backyards.
- It carries soil particles, fertilizer, and other pollutants into watercourses and lakes.

Watercourses Without Adequate Riparian Cover

- Riparian areas are forest cover within 30 m of watercourses.
- Trees near watercourses keep water temperatures cool for fish habitat and can improve water quality, especially when combined with livestock restriction fencing. Without riparian areas, water temperatures can rise, and more pollutants run off into watercourses.



Limited Resources

- Limited funding and staff resources constrain the programs and services that support watershed health.

WHAT ARE WE DOING?



GSCA Staff Monitor the Health of our Watersheds by Collecting Data on Environmental Indicators

- Surface water samples at 35 locations are collected 8 times each year.
- As part of the Biological Monitoring and Assessment Program (BioMAP), benthic samples from 30 long-term monitoring sites are collected.
- Important water quality and quantity information is collected by volunteers and staff at over 5,000 stream crossings and over 900 sites have been classified by water temperature.

GSCA's Programs and Services Contribute to the Protection and Improvement of Watershed Health

- To date, close to 4.2 million trees have been planted across our watersheds.
- Environmental planning supports development in appropriate areas, reducing impacts.
- We own and manage nearly 30,000 acres of land that enhances the health of our watersheds.
- Landowners and partners have been engaged to help restore and protect natural features and water quality through GSCA's stewardship efforts.
- GSCA staff share information and provide educational opportunities that help participants connect with nature and embed conservation practices into their lives.



HOW CAN WE ENHANCE THE WATERSHED?



What Can You Do?

On the Shore

- Leave a minimum of 1 metre of native vegetation in place. Having a vegetated buffer helps to filter runoff, prevent erosion, maintain water levels, and deter waterfowl.
- Minimize fertilizer use to prevent excess nutrients from entering the lake.
- Learn how to identify and control invasive species.
- Regularly service your septic system.
- Decommission unused wells to prevent contaminants from entering groundwater.

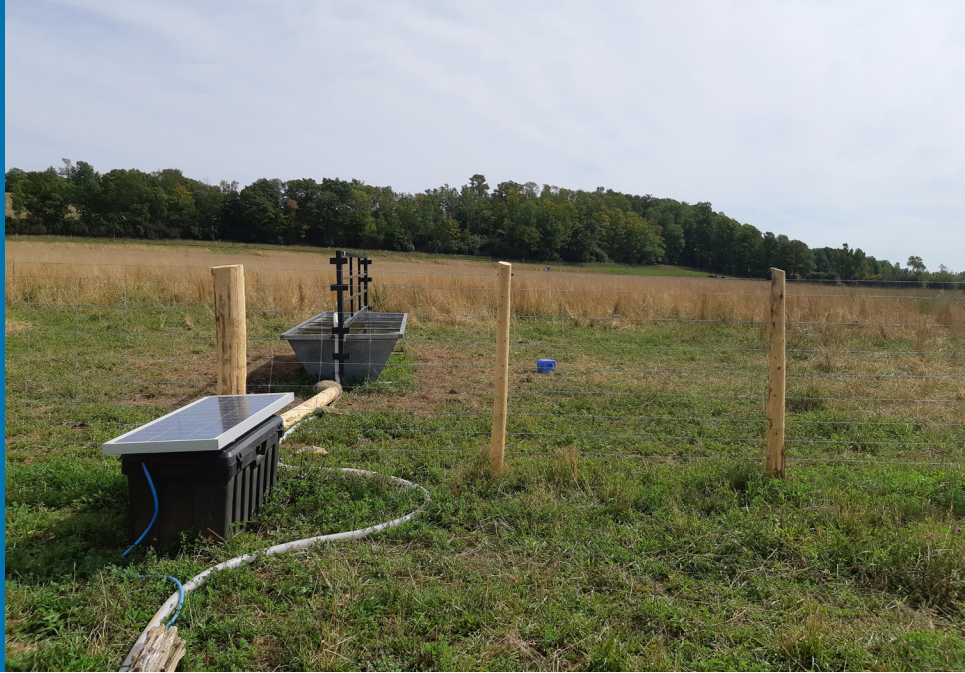
On the Farm

- Improve water quality and habitat by fencing livestock out of streams.
- Maintain a vegetated buffer between crop land and waterways.
- Upgrade manure storage and barn eavestroughing to divert clean water.
- Reduce soil erosion through no-till, residue management and cover crops.
- Plant windbreaks to protect your soils.
- Reduce nutrient loss by implementing a nutrient management plan.
- Conserve water and minimize pesticide use as these outlet to local waterways.

In Town

- Leave a minimum of 1 metre of native vegetation along creeks and lakes. Plant native species to protect the shoreline and create habitat.
- Conserve water indoors and collect water outdoors using a rain barrel.
- Increase your land permeability by using rain gardens, mulch, or permeable pavement.
- Minimize fertilizer use to prevent excess nutrients from entering streams.
- Dispose of chemicals properly and do not pour harmful substances down the drain as these outlet to local waterways.

HOW CAN WE ENHANCE THE WATERSHED?



What Can Your Community Do?

- Consider and promote low impact development in your municipality.
- Support local watershed studies.
- Support local initiatives to monitor water quality and quantity.

What Can Municipalities and Other Agencies Do?

- Work together with GSCA on consistent planning regulations and adoption of by-laws that will protect watercourses, wetlands, and vegetated riparian buffers.
- Adopt your own environmental sustainability initiatives and community grants.
- Adopt Low Impact Development (LID) practices and promote natural designs (bio-swales, infiltration trenches, permeable pavement) and stormwater retrofits.
- Secure environmentally significant properties, specifically wetlands, shorelands and properties that will connect natural features.
- Ensure appropriate approvals and/or permits are obtained so that the approval authority can monitor for implementation of approval conditions.





Do you have questions not answered by this summary document?
Visit www.greysauble.on.ca or contact us for more information:

Grey Sauble Conservation

237897 Inglis Falls Road, RR#4, Owen Sound

E-mail: j.bittorf@greysauble.on.ca | **Website:** www.greysauble.on.ca

Phone: 519-376-3076

The Watershed Report Card is available online and in other formats upon request.



STAFF REPORT

Report To: Board of Directors
Report From: Mac Plewes, Manager of Environmental Planning
Meeting Date: March 22, 2023
Report Code: 009-2023
Subject: 2022 Environmental Planning Department Report

Recommendation:

THAT the GSCA Board of Directors receive the 2022 Environmental Planning Report (009-2023) as information;

Strategic Initiative:

This item is related to the Better Manage Flood Risks, Improve Water Quality and Enhance GSC Land Management and Natural Heritage Preservation strategic goals.

Background:

Grey Sauble Conservation Authority is required to provide programs and services related to natural hazards within its area of jurisdiction. The Environmental Planning Department is tasked with fulfilling part of this mandate through its planning and permitting role. Planning services includes the review and comment of applications submitted under the Planning Act and other Acts that are primarily related to development applications and supporting technical studies. Also captured within the planning numbers are services offered to the public that include property enquiries, mapping and pre-consultations. Permitting services includes the administration of Ontario Regulation 151/06 made under the Conservation Authorities Act and review of applications for permission.

The subject report highlights the 2022 planning and permitting activity.

Analysis:

Planning

The Environmental Planning Department saw a relatively large increase in the number of planning related applications reviewed in 2022 over previous years. It is noted, the volumes reported below represent new applications in 2022. However, there are many complex development files, such as plans of subdivisions, that can span many years and require staff time for review of submissions or responses anytime there is new information brought forward.

Table 1 - 5 Year Planning Stats

| Municipality | 2018 | 2019 | 2020 | 2021 | 2022 | Distribution |
|------------------------------|-------------|-------------|-------------|-------------|-------------|---------------------|
| Arran-Elderslie | 21 | 12 | 13 | 13 | 16 | 2.8% |
| Chatsworth | 20 | 21 | 27 | 25 | 18 | 4.1% |
| Georgian Bluffs | 114 | 92 | 64 | 64 | 95 | 15.7% |
| Grey Highlands | 108 | 111 | 123 | 108 | 113 | 20.6% |
| Meaford | 44 | 67 | 70 | 71 | 105 | 13.1% |
| Owen Sound | 38 | 34 | 41 | 50 | 51 | 7.8% |
| South Bruce Peninsula | 74 | 54 | 70 | 72 | 82 | 12.9% |
| Blue Mountains | 59 | 105 | 72 | 98 | 116 | 16.5% |
| Other | 33 | 39 | 46 | 25 | 33 | 6.5% |
| Total | 511 | 535 | 526 | 526 | 629 | 100% |

Table 2 - Application Types

| Type | 2022 |
|---|-------------|
| Consents | 102 |
| Minor Variances | 84 |
| Official Plan Amendments | 7 |
| Zoning By-law Amendments | 79 |
| Site Plan Reviews | 10 |
| Removal of Holds | 4 |
| Pre-Consultations | 62 |
| Subdivisions/Condos | 3 |
| Niagara Escarpment DP | 101 |
| Regulation Enquiries | 174 |
| Aggregate Resources Act | 1 |
| Environmental Assessment | 1 |
| Community Infrastructure and Housing Accelerator | 1 |

Permits

Permit applications in 2022 saw a decline for the second year in a row from the 2020 peak and are just above the 5-year average. Permit reviews were completed within 79% of the target timeline as per the Policies and Procedures for Conservation Authority Plan Review and Permitting Activities (MNRF, 2010). The reported percentage is a result of both external and internal factors. External factors include poor-quality submissions and delays as a result of applications submitted prior to obtaining higher-level approvals. Internal factors included reductions in staff compliments and overall challenges in managing high volumes of planning and permit applications. The addition of the Regulations Officer has helped in this regard but given the temporary staff reductions in 2022, the full benefit was not realized.

Table 3 - 5 Year Permit Stats

| Municipality | 2018 | 2019 | 2020 | 2021 | 2022 | Distribution |
|------------------------------|-------------|-------------|-------------|-------------|-------------|---------------------|
| Arran-Elderslie | 13 | 6 | 7 | 8 | 6 | 1.9% |
| Chatsworth | 11 | 13 | 17 | 18 | 18 | 3.6% |
| Georgian Bluffs | 52 | 42 | 70 | 63 | 67 | 13.7% |
| Grey Highlands | 53 | 51 | 53 | 65 | 60 | 13.1% |
| Meaford | 75 | 75 | 74 | 73 | 72 | 17.2% |
| Owen Sound | 27 | 23 | 18 | 14 | 16 | 4.6% |
| South Bruce Peninsula | 60 | 66 | 81 | 83 | 88 | 17.6% |
| Blue Mountains | 96 | 113 | 157 | 132 | 108 | 28.2% |
| Collingwood | 4 | 2 | 0 | 0 | 1 | 0.3% |
| Total | 391 | 391 | 477 | 456 | 436 | 100% |

Summary

2022 saw another busy year for the Environmental Planning Department. While permit numbers were down slightly, planning numbers increased substantially. The Department was able to add a new position, the Regulations Officer, which is dedicated to permit review and compliance.

Financial/Budget Implications:

There is no financial impact related to this report.

Communication Strategy:

There is no communication strategy required at this time.



Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-033

MOVED BY: _____

SECONDED BY: _____

THAT the GSCA Board of Directors receive the 2022 Environmental Planning Report (009-2023) as information;



STAFF REPORT

Report To: Board of Directors
Report From: Morgan Barrie, Operations Manager
Meeting Date: March 22, 2023
Report Code: 010-2023
Subject: Parking Revenue for 2022

Recommendation:

THAT the GSCA Board of Directors accept Report 010-2023 – Parking Revenue for 2022, as information.

Strategic Initiative:

This item is related to the “Enhance Current Land Management” priority set out in GSCA’s Strategic Plan.

Background:

In 2020 GSCA’s Operations Department, with support from various other departments, made plans to start a new Ambassador program pilot project to better accommodate park users and improve parking compliance. Instead of solely relying on users to use the MacKay system (pay by phone) on their own, it was decided to have Ambassador’s at strategic locations to help park users understand how the system worked.

2020 proved to be a success, with an increase of 132% in revenues compared to 2019. 2020 was a good year to reflect on data and feedback from park users and to see if there were other ways that GSCA could better serve our visitors and streamline our systems. One obvious way was for staff to have Debit/Credit terminals onsite that would make it easier and faster for users to pay. It was also

clear due to data collection, that it would be beneficial to expand staff presence at other popular GSCA areas.

With a combination of staff on site and the use of the Mackay Pay system, 2021 proved to be another success with revenues increasing by 154 % from 2020.

Update

2022 proved to be a challenging year from the start. In April, Mackay Pay informed GSCA that they would no longer be providing their parking app program, which left GSCA staff scrambling to find alternatives. GSCA staff were able to expand the existing Square payment system and implement it before the busy season commenced. After reviewing the data from 2021, staff were able to make some adjustments to try and maintain current revenues as there were some concerns that visitation might decrease due to health restrictions easing and people having greater travel options further away. Parking was expanded at Bruce's Caves with an agreement with Georgian Bluffs, and staffing was added to this property. Ultimately, despite the record setting parking revenues in 2021, 2022 recorded a 5% increase over 2021.

Parking Revenue Analysis Inglis Falls

Visitation data compared to actual revenues show some obvious discrepancies. The Inglis Falls car data is showing that 52,897 cars triggered the counter for 2022. Square transactions compared to cars counted (visitation) shows that on average we are only seeing 24% payment compliance. However, this does not factor in vehicles driven by staff, season pass holders, people turned away due to full parking lot, landowners, police and emergency vehicles. It is difficult to quantify solid numbers in this regard.

We do know that when staff are on site there is 100% compliance. We also know that approximately 730 Member's Passes were sold or distributed to residents of Owen Sound and/or areas immediately adjacent to Owen Sound. These visitors visiting twice a month would account for an additional 30% of visitors. This suggests that our rate of compliance is likely greater than 50% compliance averaged over a year. This is up substantially from the 16% compliance estimates from 2018.

There was a 12.4% increase in revenues from 2021 to 2022.

Suggested improvements for the Ambassador program at Inglis Falls from 2021

- 1) Weekend staff do an overlap shift. One employee starts at 8:00am and finishes at 4:00pm while the other staff member starts at 12:00 and finishes at 8:00pm.

Results: It was noted by staff, that it was not beneficial to have staff onsite during off peak times as the parking revenues collected were minimal.

- 2) Hire staff for longer than 5 months of the year.

Results: We were able to have staff on site for 6 months during weekends and holidays. This helped generate an additional \$15843.38 over 2021, while only incurring additional costs of approximately \$3200.

- 3) Expand overflow parking area or add parking across bridge.

Results: More parking may be allocated to another area (see management plan)

- 4) Hire staff for enforcement.

Results: Contract field staff received their Provincial Offence Officer training in 2021.

Suggested improvements for Ambassador program at Inglis Falls

- 1) Investigate data to see if extending the season further would translate to more net revenues.
- 2) We will have staff document Member's and Season Pass holders entering during Ambassador hours to better track usage by these types of visitors.
- 3) Investigate updating or expanding infrastructure (see management plan)

Parking Revenue Analysis for Spirit Rock

2022 was the second-year staff were situated at this park. Staff worked on the weekend starting Friday and ending on Sunday through July and August. This

helped bring in some additional revenues. An analysis of compliance has not been completed at Spirit Rock at this time.

Suggested improvements for the Ambassador program at Spirit Rock from 2021

- 1) Hire staff a full-time staff from May till October

Results: After reviewing the data it made the most monetary sense to have staff on just the weekends. This may be revisited based on ongoing review of data.

- 2) Expand parking lot to the north of existing lot.

Results: Waiting for upcoming management plan

Suggested improvements for the Ambassador program at Spirit Rock

- 1) Add parking related signs.

Parking Revenue Analysis for Bruce's Caves

2022 saw a staff full time at Bruce's Caves for July and August. An agreement with Georgian Bluffs allowed GSCA to utilize the front parking lot so staff could be stationed at the front entrance. Data and revenues show that we are seeing roughly 44% compliance at this location.

Suggested improvements for the Ambassador program at Spirit Rock from 2021

- 1) Increased signage

Results: Signage was added to the new parking lot. This may have contributed to the increase of revenue although this is hard to quantify.

- 2) Work with Georgian Bluffs to have access to the parking. Install Mackay Pay Signs. This could require a new trail so walk ins are not on the narrow road.

Results: Agreement reached with Georgian Bluffs to have access to the upper parking lot. Able to utilize the Bruce Trail to help keep foot traffic off the road.

- 3) Hire full time staff for the season. This would require a gatehouse.

Results: Staff were hired for full time for the summer months. A gate house was provided to staff.

- 4) Expand parking by washroom and pavilion.

Results: Waiting for management plan to commence

Suggested improvements for the Ambassador program at Bruce's Caves

- 1) Only have staff working weekends from July to August to maximize benefit between costs and revenue.
- 2) Add paid parking signage at upper parking lot.

Parking Revenue Analysis Eugenia Falls

Revenues were down 25.7% this year. Ambassadors noted that there was a lot less traffic coming to the park, than in 2021. This may be due to health restrictions being lifted. In 2022 staff were present from April until October 31st. The Park also closes at 6:00pm.

Suggested improvements for the Ambassador program at Eugenia from 2021.

- 1) Install car counter to get a more accurate data.
Results: Car counter was not installed this year due to equipment being allocated to other properties and logistical issues with installation.
- 2) Implement overlapping shifts on weekends and extend park hours.
Results: After some consideration, it was decided to keep current hours

Suggested improvements for the Ambassador program at Eugenia falls.

- 1) Only have staff on weekends until peak season (July and August) to maximize revenue/cost benefit.

Parking Revenue Analysis for Hibou

Hibou does not have a car counter to pull data from. It is currently staffed for the summer months (July, and August Wednesday to Sunday). Revenues did increase by 4.8 % from 2021. It has also been noted when talking with Ambassador staff that a good portion of visitors were locals with a membership pass.

Suggested improvements for the Ambassador program at Hibou

- 1) Car counter at gatehouse to collect data. Have staff make a note when people are coming in with membership passes.
Results: Car counter not installed as available equipment used at other sites at this time.
- 2) Better service provider as square system has trouble connecting at times.
Results: Square terminal functioned better in 2022
- 3) The ability to sell season passes on site.
Results: Staff were able to sell season passes onsite which helped increase season pass sales for 2022

Suggested improvements for the Ambassador program at Hibou

- 1) Install car counter at exit for data analysis.
- 2) Increase paid parking signage.

Parking Revenue Analysis for Old Baldy

Old Baldy does not have a car counter currently but does have a trail counter. In 2021 staff worked on weekends from late Summer to Fall. After reviewing data from popular GSCA properties, it was decided that it would be more beneficial to have this staff at our Bruce's Cave's property. Revenues were down 23% at this location, again this could be due to health restriction easing and the success of the membership program. The data suggests that Old Baldy's compliance is at 94%.

Suggested Improvements for the Ambassador program at Old Baldy from 2021.

- 1) Install car counter to retrieve more accurate data.
Results: Equipment not available currently
- 2) Expand parking lot if possible.
Results: After some preliminary investigation it has been noted that it would be difficult to expand the parking lot due the geography of the land.

- 3) Only have staff hired for the Fall weekends?

Results: Due to lack of staffing, this was not possible.

Suggested Improvements for the Ambassador program at Old Baldy

- 1) Add more paid parking signage to parking lot.

Parking Revenue Analysis for Christie Beach

In 2021 GSCA signed an agreement that allowed GSCA to place square parking signs at the parking area at the bottom of the hill. 2022 saw an increase of 23% in parking revenues. This may be due to added signage.

Suggested Improvements for the Ambassador program at Christie Beach

- 1) Improve upper parking lot and add trail down to the beach.

Results: Waiting for management plan

- 2) Expand parking lot in swing set and pavilion area.

Results: Waiting for management plan

- 3) Add more signage.

Results: More parking signs were added which may have helped with increased parking revenues.

Parking Revenue Analysis for Ainslie Woods

There is no car counter or staff at this site. Parking revenues were down by 27.5%. It can also be assumed that a good portion of users have a membership pass as this tends to be a local spot.

Suggested Improvements for the Ambassador Program at Ainslie Woods from 2021

- 1) Expand parking area to the East of the property.

Results: Waiting for management plan

- 2) Add car counter to retrieve data.

Results: Equipment used at other popular properties at this time

- 3) Implement pilot project and have staff onsite for a weekend or two.

Results: Due to lack of staff, pilot project did not happen in 2022

- 4) Add trial system to attract more users.

Results: Met with outside partners to investigate a trial system. Could be a possible project in the coming years.

Suggested Improvements for the Ambassador Program at Ainslie Woods

- 1) If possible, add car counter to retrieve data.

Parking Revenue Analysis for Bognor Marsh

Bognor currently does not have a car counter. The parking lot is small and there is no staff onsite. Parking revenues were down 43% in 2022 from 2021. This tends to be known as a local spot and may be reflective of the increase in sales of our members pass.

Suggested Improvements for the Ambassador Program at Bognor from 2021

- 1) More signage

Results: More signage was added. It seems this did not translate to more revenue.

- 2) Expand parking lot.

Results: Waiting for management plan

Suggested Improvements for the Ambassador Program at Bognor

- 1) Add trail counter for data collection.

- 2) Add more paid parking signage.

Parking Revenues from Membership Passes and Seasons Passes

In 2020 GSCA sold \$14,158.04 worth of Season Passes. In 2021 GSCA decided to change the system and have a Member's Pass for residents in the GSCA watershed municipalities as well as a season pass for people outside of the watershed municipalities. The Member's Pass stayed at the previous \$40.00 and now also includes a quarterly newsletter and updates on events that GSCA and partner's host. The seasons pass, \$75 is open to all others outside our watershed municipalities. The implementation of this program was a huge success selling

well over double in 2021. The program continues to be a success and increased its revenue by 23.7 % from 2021.

We note from our data that approximately 60% of the passes were sold or distributed to residents within or immediately adjacent to the City of Owen Sound. This will inevitably bear on the perceived compliance at Inglis Falls, Hibou, and Ainslie Woods Conservation Areas.

Suggested improvements for the Membership Pass from 2021

- 1) Sell passes at gatehouses.

Results: Staff were able to provide this service which helped increase season pass sales for 2022

- 2) Inject more money into advertising.

Results: Staff increased advertising and noticed a bump in pass sales

- 3) Renewal program

Staff sent emails and newsletters to membership holders in October to remind them to renew.

Suggested improvements for the Membership Pass

- 1) Continue to increase advertising and promote at key times.

- 2) Improve training.

In Conclusion

The Ambassador program as it relates to revenues and compliance has proved to be a success. There is some room for improvement such as accurate data collection at more sites, investigate adding Ambassadors at key sites, infrastructure upgrades, more signage, and continue to improve training for employees all of which will improve the visitor experience and perceived value.

The Ambassador program has been a big undertaking that most GSCA departments were involved in. The success of the program is a testament to the

staff and what can be achieved when we all work together. We look forward to continuing to fine tune the program to become more efficient.

Financial/Budget Implications:

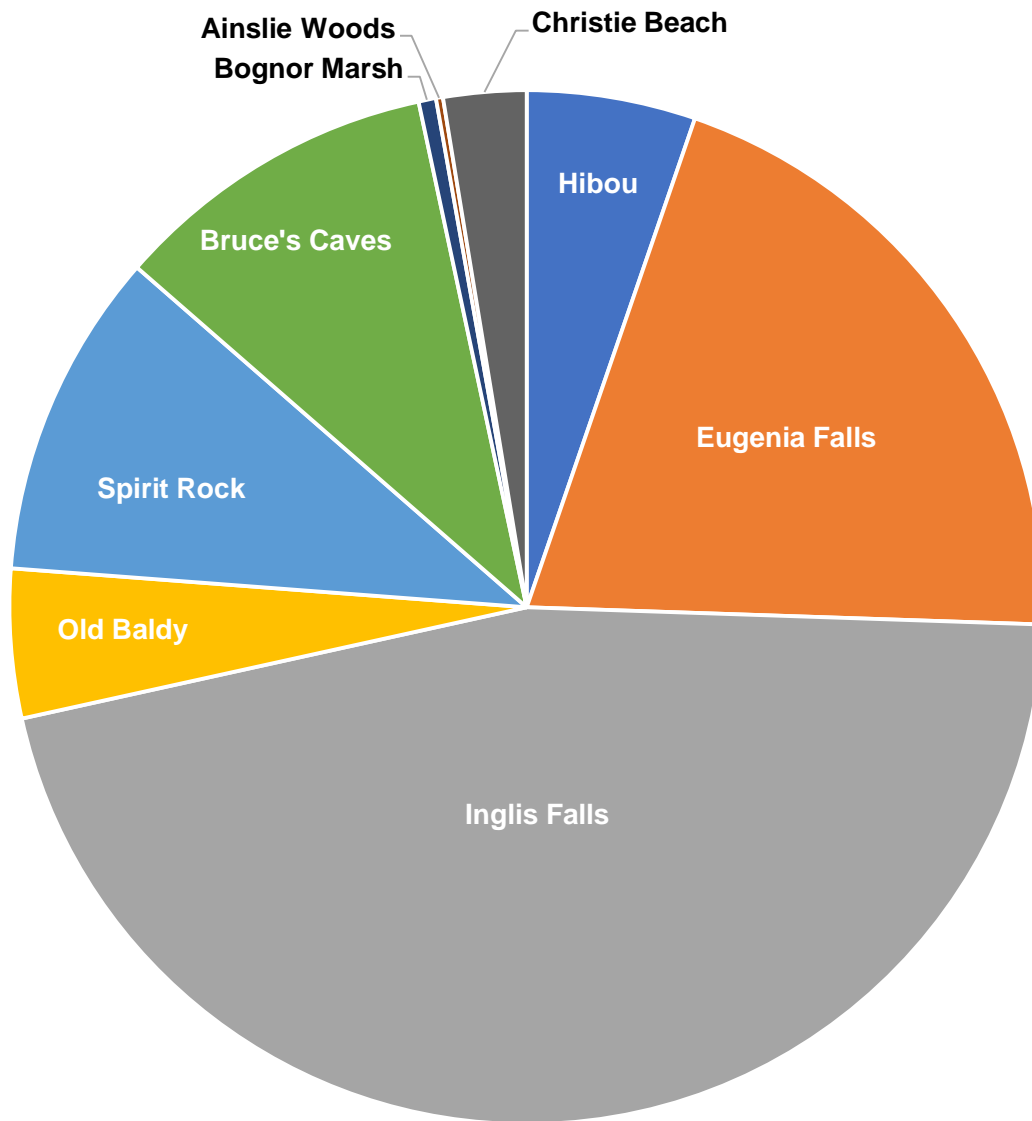
There are no financial implications associated with this report. However, for the Board's information, included below is a summary of annual revenues over the last five years.

Total Gross Revenues 2018 = \$31,960.00
Total Gross revenues 2019 = \$51704.00
Total Gross revenues 2020 = \$120,255.27
Total Gross revenues 2021 = \$306,596.54
Total Gross Revenues 2022 = \$321,005.38

Consultation:

CAO, Manager of Information Services, Administration Department, Lands
Manager, Communications & Education Specialist, Water Resource Coordinator,
Operations Staff

2022 Parking Revenues





Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-034

MOVED BY: _____

SECONDED BY: _____

THAT the GSCA Board of Directors accept Report 010-2023 – Parking Revenue for 2022, as information.



STAFF REPORT

Report To: Board of Directors
Report From: Spencer Young, Field Assistant
Meeting Date: March 22, 2023
Report Code: 035-2022
Subject: Hibou's Fiftieth Anniversary as a GSCA Managed Area

Recommendation:

WHEREAS, Friends of Hibou approached GSCA for approval to host a celebration at Hibou Conservation Area on June 24th, 2023.

AND WHEREAS, GSCA staff and FOH have assembled a committee to create, review, and plan the celebration.

AND WHEREAS, GSCA staff have reviewed current plan and continue to work with FOH on this event.

THAT, the Board of Directors authorize Friends of Hibou to host this event.

Background:

In 1973, with the dedicated work of a few passionate environmental volunteers (including the chair of the Friends of Hibou, Bob Knapp), Hibou was purchased from private individuals to bring the property back into public use through GSCA management. Currently Hibou Conservation Area is a 108-hectare property that runs along the shore of Georgian Bay and is accessible via Grey Road 15. The area is a favourite for locals and visitors alike, offering large sand beaches, 2.5km of hiking trails, a playground, and picnic areas. The Friends of Hibou want to acknowledge and celebrate half a century of Hibou being back in the public sphere with the proposed evening.

Current Request

The proposed event includes kids' activities followed by an evening of live music and guided star gazing. An entry fee of \$10.00 will be collected for those thirteen years of age and older. Kids twelve and under will have free entry. All proceeds collected will help cover cost for the artist and equipment. The park will close at 4:00pm June 24th, 2023, to prepare for the event as well as ensure to ensure attendees have paid admission. Sound equipment will be set up at the large pavilion for the live concert. Performers include Dave Hawkins, Rob Elder, and Matt Epp. If the weather is subtle, a night sky exploration with Steve Ritchie will be offered.

A land acknowledgement will be offered at the beginning of the event to acknowledge the traditional territory and use of these lands prior to colonization.

Financial/Budget Implications:

The event will be at no cost to the GSCA. Proceeds from the event will cover costs and the Friends of Hibou will cover any additional expenses. If proceeds exceed expenses, the Friends of Hibou will retain these proceeds to offset the costs of projects and maintenance for the property.

Communication Strategy:

Upon Board approval, GSCA staff will work in partnership with the Friends of Hibou to publicize the event.



Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-035

MOVED BY: _____

SECONDED BY: _____

WHEREAS, Friends of Hibou approached GSCA for approval to host a celebration at Hibou Conservation Area on June 24th, 2023.

AND WHEREAS, GSCA staff and FOH have assembled a committee to create, review, and plan the celebration.

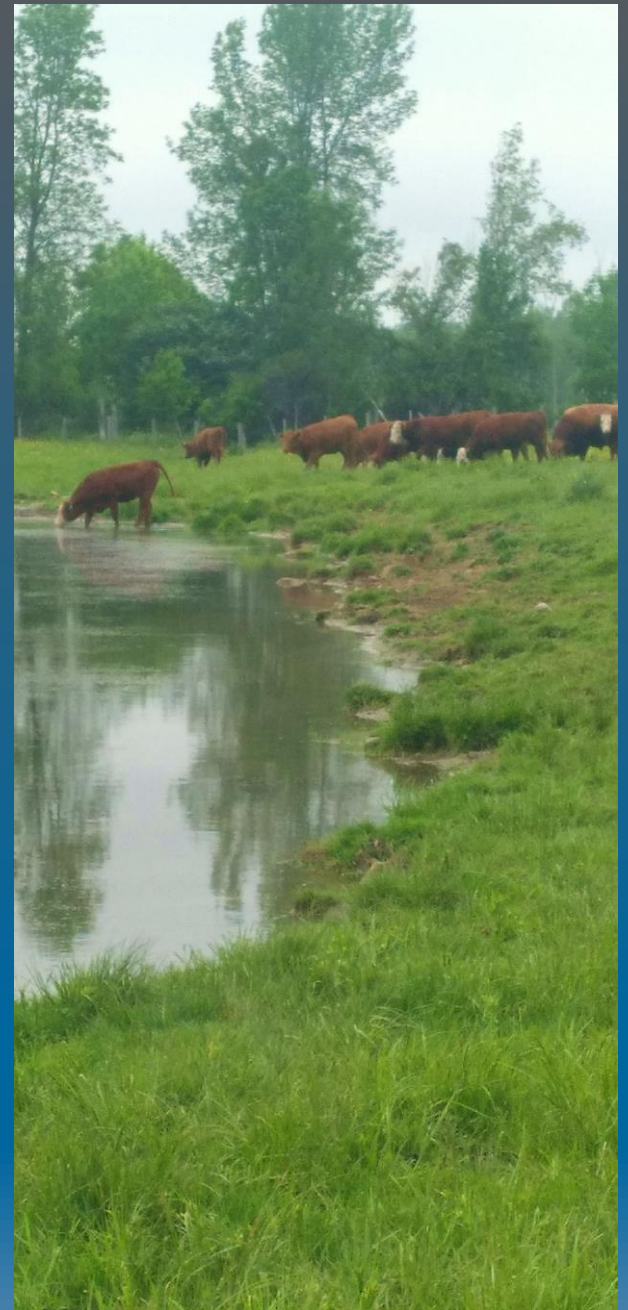
AND WHEREAS, GSCA staff have reviewed current plan and continue to work with FOH on this event.

THAT, the Board of Directors authorize Friends of Hibou to host this event.



Stewardship

Keith Reid
Stewardship Technician



Healthy Lake Huron – Update



Agricultural Characteristics Report for Sauble South Subwatershed

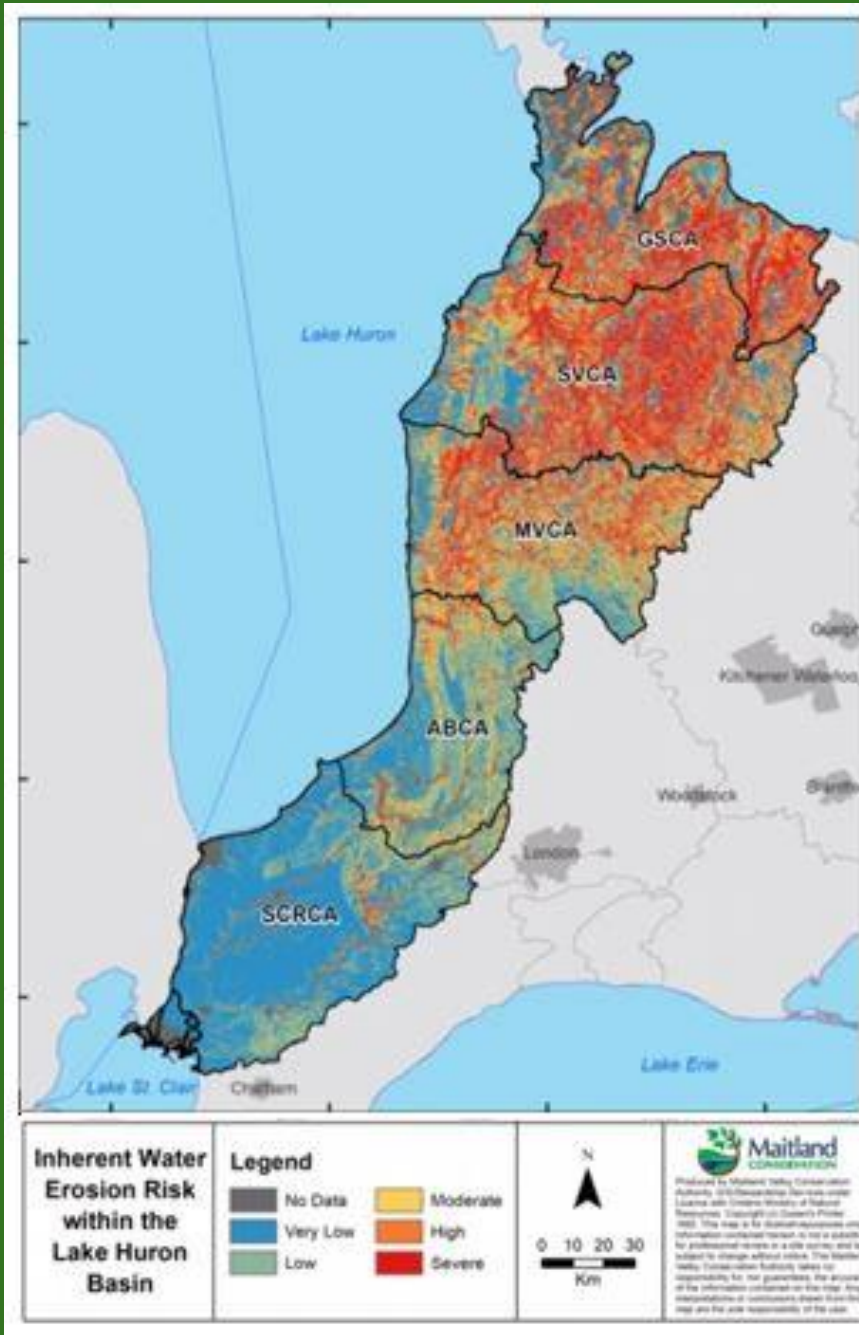
A Report to Ontario Ministry of Agriculture, Food
and Rural Affairs to support efforts of the Healthy
Lake Huron Initiative

Prepared by: Keith Reid and Michael Fry
Grey Sauble Conservation Authority
December 2004

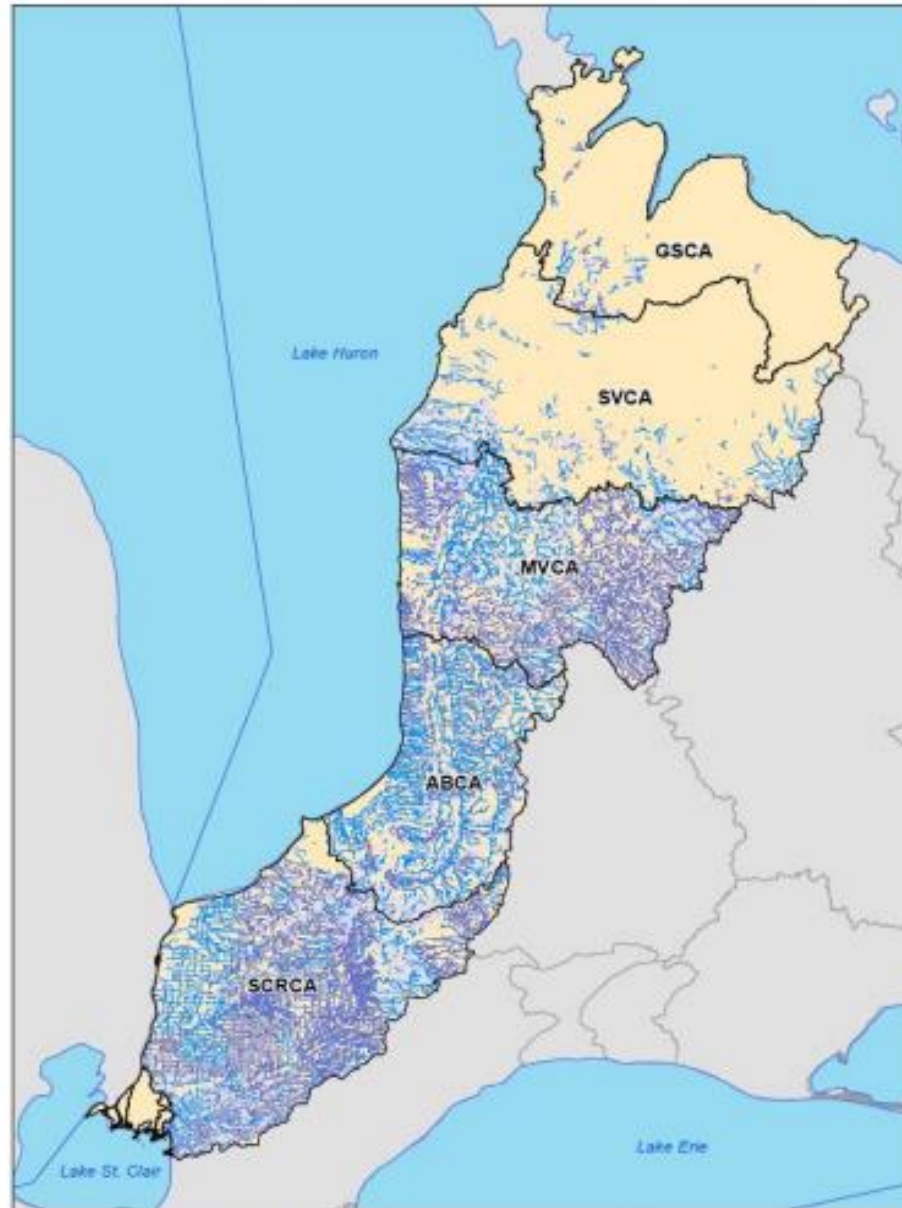
Workshop – HLH



Map of Erosion Risk Potential



Constructed Drains



OMAFRA 'Constructed Drains'

Exclusion Fencing



Exclusion Fencing



Exclusion Fencing



Exclusion Fencing - Wetland



Tree Planting



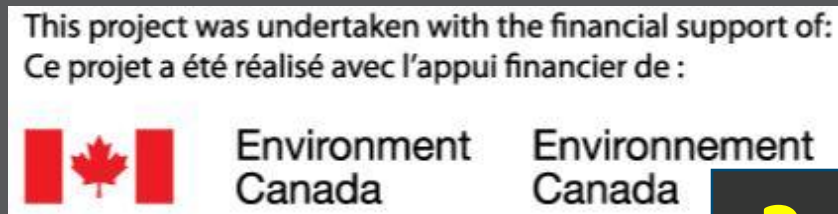
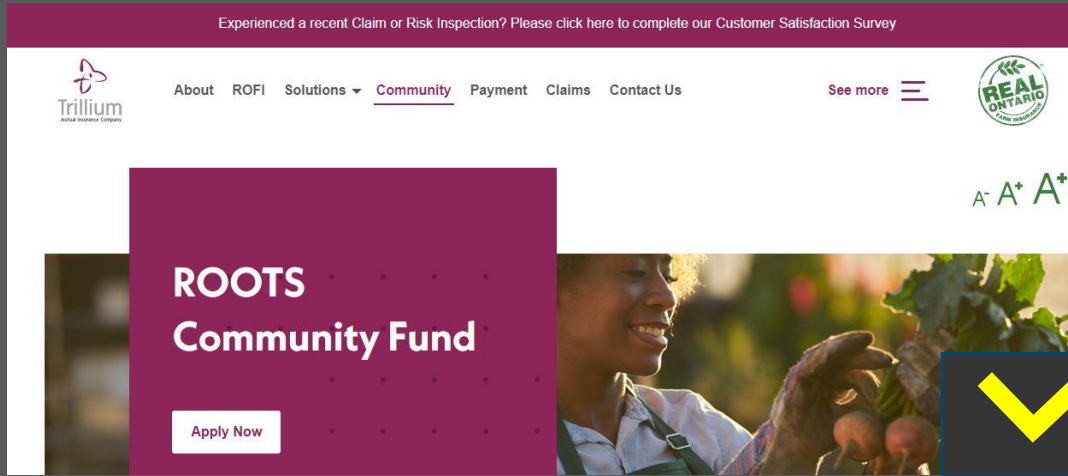
Water Diversion



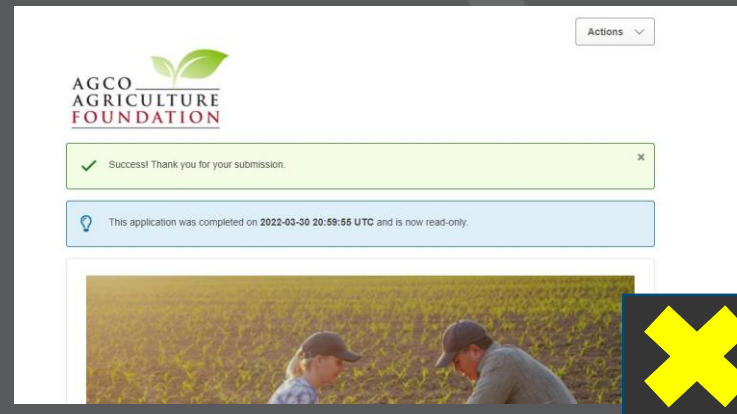
Cover Crops



Seeking Funding Opportunities

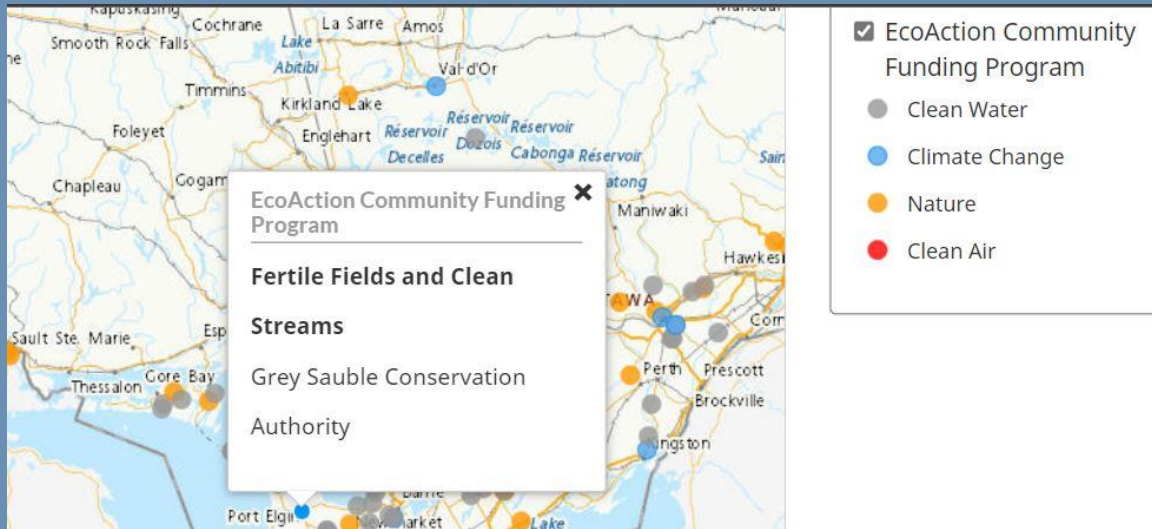


Mid-Summer - Fall





Environment Climate Change Canada ECCC– Site Visit





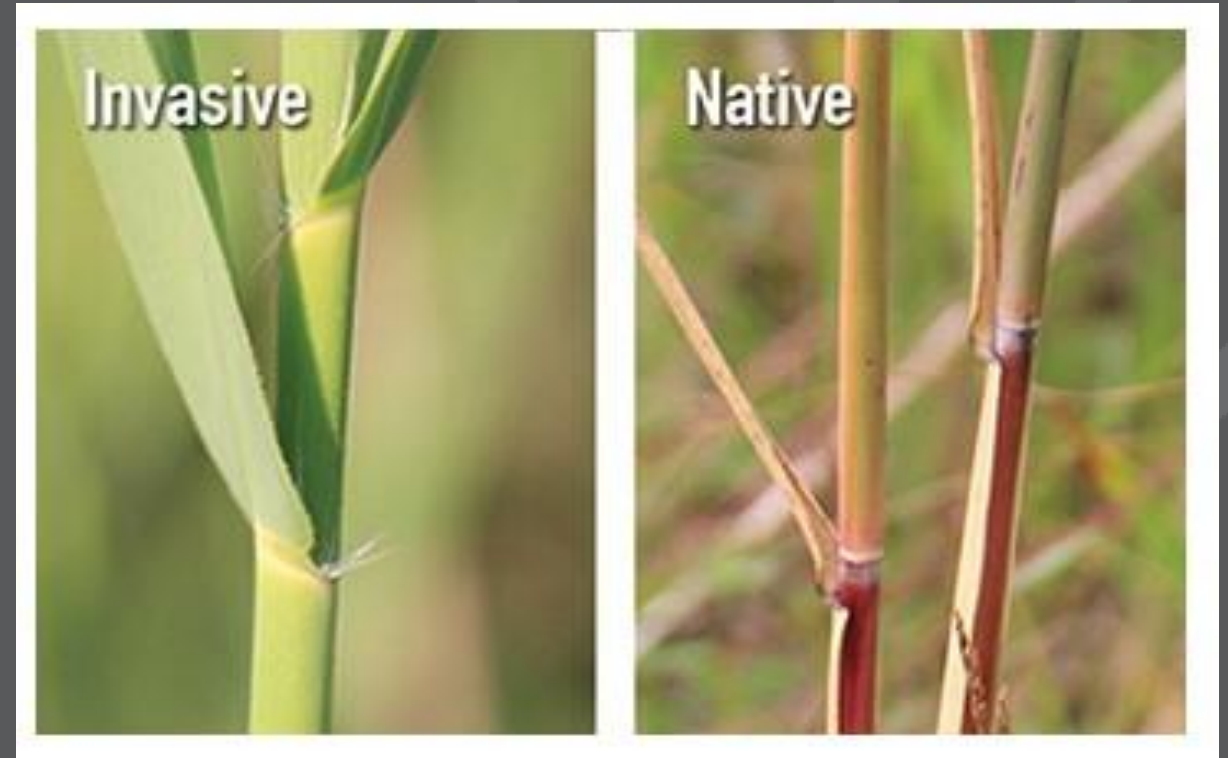
Stewardship & Youth



Invasive Species



Wild Chervil
(*Anthriscus sylvestris*)



www.natureconservancy.ca

Invasive Phragmites
(*Phragmites australis subsp. australis*)

Invasive Species – GSCA Site



Partnership – New Funding

Ontario 

MINISTRY OF AGRICULTURE, FOOD AND RURAL AFFAIRS



Grey Sauble
CONSERVATION



Grey Sauble
CONSERVATION

THANK YOU

Grant Donors & Partners



Environment and
Climate Change Canada

Environnement et
Changement climatique Canada

**Ministry of the Environment,
Conservation and Parks**

**Landowners /
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MINISTRY OF AGRICULTURE, FOOD AND RURAL AFFAIRS



**ROOTS
Community Fund**



STAFF REPORT

Report To: Board of Directors
Report From: Vicki Rowsell, Communications & Education Specialist
Meeting Date: March 22, 2023
Report Code: 012-2023
Subject: Grey Sauble Day Camp 2022 Overview

Recommendation:

THAT the GSCA Board of Directors receive the Grey Sauble Day Camp 2022 Overview Report (012-2023) as information;

Background:

GSCA's main environmental education deliverable is currently the Grey Sauble Day Camp, which operates primarily during the summer months, but has also included March Break and PD Day camps.

The Grey Sauble Day Camp is for children between the ages of 7 and 11 and operates out of the Grey Sauble Administration Centre. This program exists to actively engage and inspire children through intentional environmental education programming. We want our participants to leave more connected to oneself, other people, and with the natural world.

Providing opportunities for children to experience the natural world will create a strong sense of place and confidence being outdoors. Our goal is to increase their environmental awareness, responsibility, and desire to become the next protectors of our natural resources.

Analysis:

The Grey Sauble Day Camp program ran in the summer of 2022 after a two-year hiatus due to COVID-19. A Return to Operations Plan was developed that included COVID-19-

specific procedures and adaptations to day camp operations to accommodate potential restrictions and guidelines. In June 2022 the Province removed day camp-related COVID-19 restrictions, but GSCA opted to maintain an enhanced cleaning and sanitization schedule, and required day camp participants and staff to wear masks in the Administration Centre and when traveling by bus.

Four Day Camp staff were hired to run the 9-week program from July 4 – September 2, 2022. The program hosted approximately 30 campers per day, with a total of 138 individual campers. An online registration process was implemented using the Amilia registration software platform. Full-week registration was required instead of the single-day registration model previously used for day camp. The cost of day camp was \$190/week (\$38/day) except for week 5: Nature Art, which was \$152/week due to it being a four-day week. GSCA did not offer before or after care to accommodate the enhanced cleaning and sanitization schedule.

The program was organized into various nature-focused weekly themes where campers participated in environmental education activities, games, sports, and crafts. Program highlights also included bus trips, special guests, and weekly swimming at Harrison Park Pool. A significant part of the Grey Sauble Day Camp is “forest time”, where campers enjoy creative free play in nature.

Program challenges included COVID-19, behavioural issues amongst participants and general childcare, staffing, and delivering the planned amount of environmental education.

Overall, the day camp program experienced many positive outcomes including receiving encouraging feedback from numerous parents/guardians throughout the summer, developing staff skills, and by learning from challenges. Valuable data was also acquired through a successful parent/guardian survey which indicated that the program was well received and that many parents/guardians want GSCA to deliver more environmental education in the day camp program and offer more environmental education programs in general.

Financial/Budget Implications:

None

Communication Strategy:

None

Consultation:

GSCA Staff

Parents/Guardians



2022 OVERVIEW

The Grey Sauble Day Camp





GREY SAUBLE DAY CAMP MISSION STATEMENT

The Grey Sauble Day Camp program exists to actively engage and inspire children through intentional environmental education programming. We want our participants to leave more connected to oneself, other people, and with the natural world.

Providing opportunities for children to experience the natural world will create a strong sense of place and confidence being outdoors. Our goal is to increase their environmental awareness, responsibility, and desire to become the next protectors of our natural resources.



PROGRAM OBJECTIVES

All staff and volunteers are encouraged to contribute to programming success by playing a key role ensuring:

- That all campers are safe.
- That everyone has fun through participating in activities that encourage personal well-being, social interactions, and the development of new skills/interests.
- That they are learning about and fostering connections with the natural world.
- That every child can be successful while participating in programs.

RETURN OF THE GREY SAUBLE DAY CAMP SUMMER PROGRAM

Due to COVID-19:

- Return to Operations Plan
- Adaptations to day camp programming
- Enhanced cleaning and sanitization



2022 DAY CAMP STRUCTURE



9 weeks



30 campers/day
138 individual campers



\$38/day
full-week registration



online registration



no before/after care
8:30 am – 4:30 pm



4 day camp staff

2022 GREY SAUBLE DAY CAMP PROGRAM HIGHLIGHTS

Weekly Themes:

Week 1: Forest Explorations

Week 2: See, Hear & Explore Nature

Week 3: Outdoor Science

Week 4: Water Ways

Week 5: Nature Art

Week 6: Grey Sauble Games

Week 7: What Lies Above and Beneath

Week 8: Get Wild

Week 9: Forest Explorations



BUS TRIPS



SPECIAL GUESTS



MORE SPECIAL GUESTS



ENVIRONMENTAL EDUCATION PROGRAMMING



EVERYDAY FUN



DAY CAMP CHALLENGES

COVID-19:

- Time consuming to prepare for
- Isolation requirements for illness
- Enhanced cleaning
- Overall, less significant challenge than anticipated



DAY CAMP CHALLENGES

Behavioural Issues and General Childcare:

- Day-to-day childcare and dealing with misbehaviour is a time-consuming part of the program.
- Lack of one-on-one resources for campers with behavioural issues beyond staff expertise.



DAY CAMP CHALLENGES

Staffing:

- Lengthy recruitment process
- Expertise and experience
- Training limitations
- Loss of staff



DAY CAMP CHALLENGES

Delivering planned environmental education:

- The day camp model is difficult
- Need for specialized staff
- Need for enough staff
- Approximately 30 – 60% of each week was environmental in its focus



POSITIVE OUTCOMES



positive feedback



learned from challenges



staff development



acquired data



PARENT/GUARDIAN SURVEY RESULTS

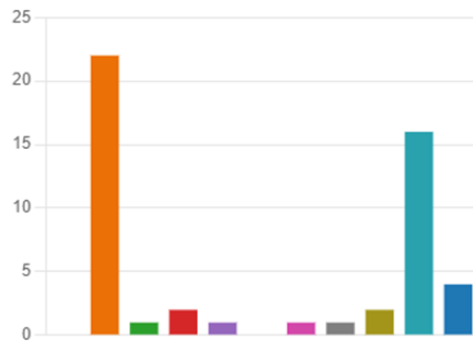
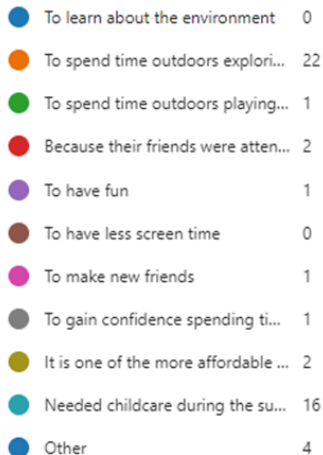
Why did parents/guardians send their children to our camp?:

1. To spend time outside exploring nature.
2. They needed childcare for the summer.

4. What was the main reason for sending your child(ren) to the Grey Sauble Day Camp?

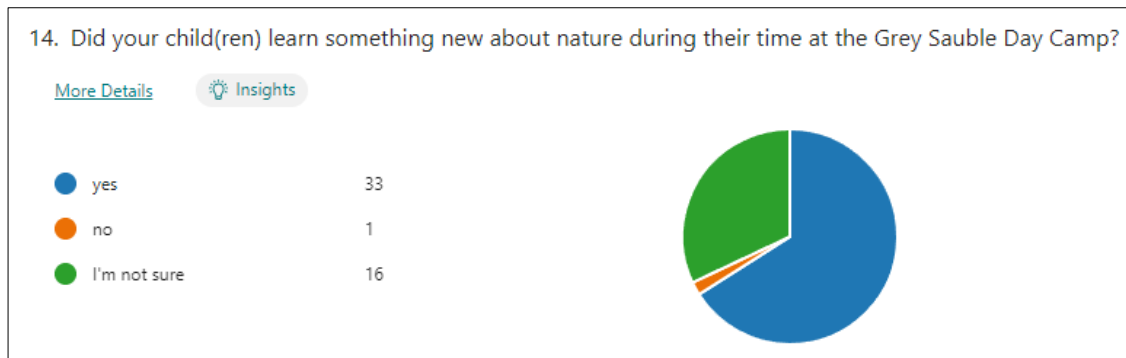
[More Details](#)

[Insights](#)



PARENT/GUARDIAN SURVEY RESULTS

66% of parents/guardians who responded said their child(ren) learned something new about nature during their time at camp:



“They came home many times telling me new things about their day. The **guest speakers** were definitely a high point.”

“The boys came home with plenty of **new facts and experiences** each day.”

“How to **respect the environment** by not disturbing plants and animals.”

“How to build forts out of sticks, **different kinds of trees**, how to play camouflage, how to crayfish.”

PARENT/GUARDIAN SURVEY RESULTS

Out of the 50 parents/guardians who responded:

- **52%** said their child's confidence exploring the outdoors increased because of attending camp.
- **52%** said their child expressed an increased respect for nature because of attending camp.
- **14%** said their child requested more outdoor time since attending camp.
- **64%** said their child requested to return to a GSCA property since attending camp.



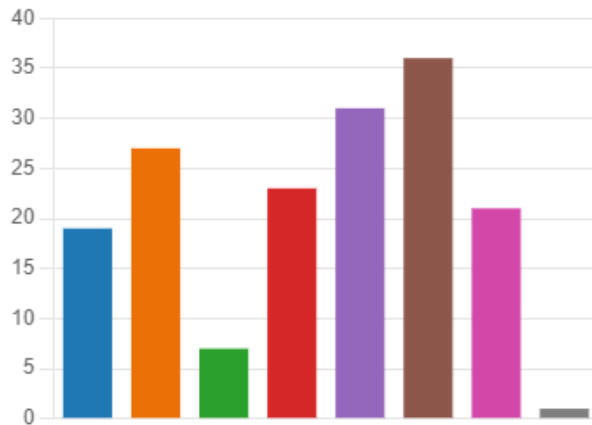
PARENT/GUARDIAN SURVEY RESULTS

What types of GSCA programming do parents/guardians want?:

39. Would you be interested in the following programs? (check all that apply)

[More Details](#)

| | | |
|---|-------------------------------------|----|
|  | An entirely environmental educ... | 19 |
|  | Separate age-base programs (i.... | 27 |
|  | Programming for younger childr... | 7 |
|  | Winter holiday break day camp | 23 |
|  | March Break day camp | 31 |
|  | PD day camps | 36 |
|  | Family events (guided hikes, bir... | 21 |
|  | Other | 1 |



PARENT/GUARDIAN SURVEY RESULTS

What types of GSCA programming do parents/guardians want?:

- 82% said they would like more environmental education included in the Grey Sauble Day Camp.

40. Would you like to see more environmental education content included in our summer day camp programming?

[More Details](#)

 Insights



OTHER ENVIRONMENTAL EDUCATION





THANK YOU!

Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-036

MOVED BY: _____

SECONDED BY: _____

THAT the GSCA Board of Directors receive the Grey Sauble Day Camp 2022 Overview Report (012-2023) as information;



Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-037

MOVED BY: _____

SECONDED BY: _____

THAT the Grey Sauble Conservation Authority Board of Directors proceed into closed session at X:XX pm to discuss matters related to the following:

- i. Minutes of the Closed Session of the Regular Board of Directors meeting held on February 22, 2023; and,**
- ii. To discuss three separate items of commercial significance, such as, but not limited to, a proposed or pending acquisition of real property for Authority purposes, internal reserve bid amounts, leases, and property sales (GSCA Administrative By-Law, Section 4 (xvi)(g));**
- iii. To discuss a Human Resources item – closed as it relates to personal matters about an identifiable individual including Authority directors or Authority employees (GSCA Administrative By-Law, Section 4 (xvii)(b));**

AND FURTHER THAT CAO, Tim Lanthier and Administrative Assistant, Valerie Coleman will be present, and Manager of Conservation Lands, Rebecca Ferguson will be present for item ii only.



Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-038

MOVED BY: _____

SECONDED BY: _____

THAT the Grey Sauble Conservation Authority Board of Directors resume open session.



Grey Sauble Authority Board of Directors

M O T I O N

DATE: **March 22, 2023**

MOTION #: **FA-23-039**

MOVED BY: _____

SECONDED BY: _____

THAT the Grey Sauble Conservation Authority Board of Directors approve the February 22, 2023, Closed Session minutes as presented in the closed session agenda.



Grey Sauble Authority Board of Directors

M O T I O N

DATE: March 22, 2023

MOTION #: FA-23-040

MOVED BY: _____

SECONDED BY: _____

THAT this meeting now adjourn.