

FINAL REPORT – AGREEMENT 2020-02

Submission to Ganawenim Meskiki - Trustee of the Eastern Georgian Bay Initiative

Submitted by Georgian Bay Mnidoo Gamii Biosphere



On behalf of the Community Nominated Priority Places Co-Applicants: Magnetawan First Nation

Shawanaga First Nation

Georgian Bay Land Trust

Georgian Bay Mnidoo Gamii Biosphere

MARCH 1, 2021

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1.0 Background:

Georgian Bay Biosphere gratefully received funding support (\$140,877.33) from Ganawenim Meshkiki to undertake outreach and education, including knowledge keepers engagement and to work on Skerryvore Road in Township of The Archipelago on road mitigation activities to support a number of at-risk turtles in 2020.

Georgian Bay-Mnidoo Gamii Biosphere (GBMGB)¹ is the lead applicant and administrator for a Community Nominated Priority Places (CNPP) designation with funding provided for the period 2019-2023 from Environment and Climate Change Canada. The CNPP designation and this GMI funding was initiated out of a collaborative exercise to recognize the variety and strength of species at risk activity already being undertaken by many groups and First Nation communities. Accordingly, this work is undertaken by several groups in collaborative fashion under the guidance and direction of co-applicants including Magnetawan First Nation, Shawanaga First Nation and Georgian Bay Land Trust.

The overall goal of the CNPP work is to provide regional supports to enable communities and groups to build their capacity to undertake SAR supportive work and to find means of working collaboratively in the region to achieve those ends. This work entails defining supporting frameworks to effect improved decision-making through:

- Establishing priority mapping and ranking mechanisms to highlight key biodiversity features and threats on the landscape;
- Creating common-base data gathering methodologies and data sharing approaches in order to continue to assess the threats and effectiveness of mitigation measures;
- Reviewing and recommending changes to policy and procedural approaches for local and regional governments,
- Designing, implementing and assessing Best Management Practices for roads and land use;

The GMI fund has been instrumental in helping this group continue its collaborative efforts and begin to effect specific and positive connections for Species at Risk conservation in this region.

¹ The Georgian Bay Biosphere Reserve formally changed its operating name in 2020 to Georgian Bay Mnidoo Gamii Biosphere. This was done to share a name for Georgian Bay as provided to us by Anishinaabek peoples from the region and to eliminate the word 'Reserve' which has negative and confusing and connotations.

2.0 Highlights of 2020

- Skerryvore Road construction adjacent to Shawanaga First Nation and in Township of The Archipelago and SAR mitigation successes leads to positive species outcomes and lessons and opportunities for cost effective road management to be shared with
- Over 1000 turtles were incubated and released to wetlands with community and partner members a win for turtles and a new relationship for many with this territory.
- Steps were taken in 2020 and plans made for 2021 to structurally mitigate future harms to nesting adult turtles and newborns along Skerryvore Road.
- Two-eyed seeing approaches to our collective work were integrated into our operations and knowledge sharing and gathering;
- Engaging with university researchers to undertake efficacy monitoring and turtle population assessments in the Skerryvore road area.

Additional work by CNPP, that may be of interest to GMI from 2020 includes:

- Development of habitat prioritization mapping work lead by Georgian Bay Land Trust
- MOTUS Bird Monitoring network significant expanded on eastern Georgian Bay
- Discussions with land managers and planners on developing a policy and land use management systems review with respect to accounting for SAR through land development activities.
- Development of SAR Best Management Practices for Road Maintenance and re(development) activities.

3.0 Report on Activities:

The majority of activities outline in the 2020-02 GMI Agreement for GBMGB was undertaken and completed as is detailed below. One exception is with respect to the road mitigation work, some of which was completed in 2020 and some of which will carry on in 2021.

3.1 Skerryvore Road Mitigation

Skerryvore Road construction and mitigation work consisted of a preseason analysis of road mitigation and ecological considerations in partnership with EcoKare Consulting, Township of The Archipelago, Tatham Engineering, Shawanaga First Nation and GBMGB. Included in this were concept plans for consideration by Township of The Archipelago and also plans for addressing mitigation strategies during construction. Two 'tests' were created to eliminate the need for temporary fencing and to try a new style of nest deterrent. Specifically, road monitoring crews were employed to daily walk the road and collect eggs from nests in areas to be excavated, incubate over the summer and release at end of summer. We also worked with the Township and construction company to place large riprap along banks of wetland crossings to reduce value as egg laying habitat and with plans to resurface from shoulder to shoulder in those areas. Including in this project planning was work with Shawanaga First Nation to identify community-known species hotspot and community-identified important areas along road areas.

Road Ecologist Effort Summary:

- 94 Daily Surveys undertaken from June 8 to October 3rd
- Biking distance 2,181 km Carbon Emissions saved 297 kg
- 1 SAR training day with Road Construction Crew (not included in GMI costs)
- 7 call-outs from Road Construction crew to ecologists
- 8 Public Turtle release days/7 Turtle Hatchery Tours (not included in GMI costs)

Road Monitor's Anecdote: Quote from Construction Crew:

"Just finished up there today and wanted to say it was a different experience working there but I think we all did our job as well as found some snakes snake eggs turtle eggs and such. Just wanted to say thanks I told the guy on the bike to pass that along to all of you thanks for working with us on this project I finished today the first there the last to leave. Dump site is rehabbed just a couple pieces of equipment to move out. As for me I'm getting sent to the other end of the world now to work Gravenhurst starting tomorrow thanks again was cool little project!"

- Irwin

Ecological Summary

- 137 nests observed
- 44 nests excavated in construction zones
- 1,113 eggs collected and incubated
- 1,014 hatchlings released (91% success rate).

2020 Road Mitigation Summary:

In an effort to reduce Turtles nesting along road side edges, and with an attempt to try to eliminate the need for permanent exclusion fencing, in 2020, approximately 600 metres of the banks of the road in areas adjacent to wetlands were layered with rock rip rap. It is thought and hoped that rip rap will act as a deterrent to turtles climbing out of the wetlands to road side edges. This was done at a cost of \$98,371 paid by the CNPP and GMI project funds.

As part of the overall project development, GBMGB staff worked with Sherrill Judge (Maawaanji'iwe Manager) to develop procedures for semaa offerings to begin each road monitoring day. Offering semaa is an Anishinaabek practice of relationship building, reciprocity, honour, and

gratitude. This engagement included important work sharing and knowledge sharing with Shawanaga First Nation and Wasauksing First Nation knowledge keepers.

Next Steps:

Road Monitoring:

Surface Treatment of the road will begin in 2021 and the road monitoring will continue, in part to replace the need for temporary fencing.

Surface treatment from shoulder to shoulder will be installed in areas of the wetlands AND be considered for larger sections of the road based on data gathered in 2020.

Research/Habitat Assessment

A partnership with Laurentian University has resulted in a Master's research project to assess turtle populations in target wetlands, assess the efficacy of mitigation strategies, and to provide continued support for road monitoring efforts.

Project Attachments:

- Infographics about the Skerryvore Road Project (two)
- Skerryvore Road Yr 1 Report
- Article written for Milestones Good Roads Association newsletter.

3.2 Community Engagement and Outreach

As noted in Section 1, this work is undertaken by several groups in collaborative fashion under the guidance and direction of co-applicants including GBMGB, Magnetawan First Nation, Shawanaga First Nation and Georgian Bay Land Trust. The following table presents a summary of community engagement and outreach results from these partners in 2020:

Activity	2020 Results
Community outreach and/or events	 GBMGB 7 GBMGB social media posts (trivia, project descriptions, road ecology information) On Facebook, each post reached an average of 2,000 people Sharing videos on reptile Species at Risk in the Biosphere

- Facebook post linking to "Living Alongside The Massasauga Rattlesnake in Georgian Bay Biosphere" reached over 1,000 people. On YouTube, the video has over 500 views.
- Skerryvore Road ecology surveys in GBMGB newsletter sent to over 2400 contacts
- Skerryvore road ecology project Article (newspaper and blog post). This webpage receives over 10,000 visits a year.
 - www.gbbr.ca/news/a-tale-of-a-thousand-turtles/
- Infographic for road surveys (at least for Skerryvore)
- Photojournalism and video project for Skerryvore road ecology project in progress
- GBLT Landscript articles each distributed to 3500 residents and communicated via social media
 - How to help Georgian Bay's turtles. Engage residents in proactive and remediation measures to improve turtle outcomes.
 - Is Eastern Georgian Bay really one of a kind? What makes it such a special home for biodiversity? Science article on landwater interface and biodiversity.
 - The butterflies of Georgian Bay. Improve knowledge and engagement to protect Monarchs and other biosphere butterflies.
- GBLT Landmark Speaker's virtual event: Dr. Pat Chow-Fraser on Georgian Bay's turtles, threats and what we can do about it. Improve outcomes of the biosphere's at-risk turtles through awareness. 180 attendees. Increased engagement via posting to YouTube with social media links, website link and G-Blast.
 - Presentations to 5 Georgian Bay cottage communities on preserving Georgian Bay habitats for species at risk.

SAR workshops for community and partners

- Developed and distributed Turtle Trauma kits for community use and participation in the program
 - 70 kits assembled and available for community use
 - Facebook posts about Turtle Trauma kits reached over 1,300 people
- Turtle hatchling workshops and/or releases
 - Please note that our adherence to COVID-19 safety guidelines limited the number of hatchling release opportunities we could present to the public

	 Anishinaabek knowledge shared with participants Over 10 partners and over 40 people involved Over 20 Biosphere staff and board members participated Over 1000 turtles released (Snapper, Blanding's and Midland Painted) 16 snakes released (Milksnake and Foxsnake) Nature Note video on building turtle nest protectors (2020) created with Magnetawan First Nation Department of Lands, Resources & Environment. Over 430 views on YouTube. GBLT Kids Landmark Speakers virtual events on Turtles and Monarchs. Interactive sessions with naturalists for kids to learn about the species and how to protect them. Posted on Youtube and linked by website and social media.
SAR training (contractors, Public Works, etc.)	 Tatham and Hall Construction – over 15 participants Moving snakes and turtles off the road Safety and safe handling of wildlife Staff training for semaa (tobacco) offerings Training summer interns on SAR inventorying Continued training of 130 stewards regarding SAR reporting
GBMGB and CNPP	staff and steering committee partners participated in several cultural learning sessions. Highlights of several cultural learning sessions included; understanding the medicine wheel, sacredness of the four cardinal directions, medicines, seasons, colours, elements, and stages of life. During each session, partners learned vital aspects of Anishinaabek teachings in relation to braiding Indigenous and western science - also known as two-eyed seeing.
CNPP	Steering committee and language keepers • Part of this work included creating an Anishinaabemowin/Ojibway name and logo for CNPP. After many consultations and semaa offerings with language keepers, our committee conceptualized key words for the project to honour this work along the coast.
	Through the CNPP steering committee learning sessions, partners visioned a logo and presented those values to Maaiingan Productions to design. Our values included a circle to represent the continuous circle of Creation in many facets-directions, medicines, seasons,

colours, elements and stages of life. The inside and outside of the circle representing our two-eyed seeing approach. The pine treeshingwauk to represent the beauty and life of Georgian Bay. Land, water, shore and rock barren to represent biodiversity. Finally, the sun rise in the east as a reminder that everything begins in the east and will bring renewal each day.
 GBMGB purchased several images from local Indigenous youth artist Tsista Kennedy to use in education products and online communications. Tsista Kennedy is a woodland-style artist from Beausoleil First Nation, and Oneida Nation of the Thames. Tsista has been creating this style of artwork since the age of 13, winning a Governor General's Award for his "Seventh Fire Leadership" in 2018. The images commissioned for GBMGB depict different components of the Aanishinabek Creation Story. The images themselves are powerful visuals and helpful tools in communications.
The images tell of the Creation story and the importance of Nanaboozhoo, the turtle-miishiikenh and the zhaask-muskrat that gave their life so that life would renew for all of what is now known as Turtle Island.

Images created to support communications for outreach and education.



Maamwi Anjiakiziwin

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