Ganawenim Meshkiki's Eastern Georgian Bay Initiative Annual Update

Dec. 22, 2025

Mr. Patrick Brennan
Executive Director,
Ganawenim Meshkiki

Dear Mr. Brennan,

Please accept this as Fleming College's funding report for the year ending 2025.

The following is an update based on the milestones and deliverables from Fleming College's proposal:

Activity 1	
Collect and clean a large variety of seeds associated with xeric, early successional pine-oak forest. A species list is provided in Appendix B. Our goal is to collect a variety of these seeds from multiple areas throughout region to best initiate a high-diversity ecosystem. These activities and deliverables will be the total of activities supported by this proposal and additional funding and therefore would be difficult to partition among funding sources.	
Deliverable	
2025	Collect and clean 15kg (weight is post-cleaning) of shrub and non-woody seeds, 100kg of tree nuts, and 20kg of grass seed. In total, a minimum of 30 species of vegetation will be collected.

2025 Activity 1 Actions Completed

In 2025, our group collected and cleaned the following. Due to the summer drought our species numbers were lower than desired as many plants aborted their seeds. Despite this, we still met our overall target, but our grass seed amount was slightly lower than desirable as many areas did not set seed (particularly shrubs and poverty oat grass).

Additionally, as a result of a labour disruption by College support staff across the Province in Fall 2025, we were unable to get all of the seed cleaning done that we had planned. Therefore, we still have additional cleaning to perform and will be hiring students for this throughout the Winter 2026. Due to wet weather and early snowfall, we were only able to get the acorns planted and were unable to do the broadcast seeding, so the seeds that we will clean this winter will be added to the broadcast mix for seeding in Spring 2026.

We expect that these numbers will increase with finalized seed cleaning as well.

- For cleaned seed we finished with 52 species of seeds weighing a total of 175.41 kg

- Forbs: 16.68 kg
- Graminoids: 15.36 kg
- Shrubs: 0.43kg
- Vines: 0.06kg
- Trees: 142.89kg

Activity 2	
Collect and develop systems for propagating and planting difficult to seed shrubs including native blueberries (*Vaccinium spp*.) and Sweet Fern (*Comptonia peregrina*) including by students in Fleming College's Woody Plant Propagation course. We will attempt to propagate these species using stem and root cuttings as well as seeds. Propagated vegetation will be planted as part of habitat creation.	
Deliverable	
2025	Perform various treatments to stratified seeds (ex., treat some stratified seeds with acid) and plant and care for all germinated seeds in greenhouse. Collect more seeds and cuttings from 2 species of blueberry as well as sweet fern. Implement propagation techniques for branch and root cuttings of both species if successful. If not, attempt a different rooting method. Also, if successfully rooted, plant plugs out from previous year. Clean and stratify collected seeds.

2025 Activity 2 Actions Completed

In January of 2025, we collected more than 100 woody dormant cuttings of Low Sweet Blueberry (*Vaccinium angustifolium*) and more than 50 woody dormant Sweet Fern cuttings. We did not have any success with the Sweet Fern cuttings, but some of the Blueberry cuttings began to root after a few months. Unfortunately, we had a major breakdown in the misting bed hoses and as a result watering was cut off for a weekend. As the rooting medium was perlite, this short period was enough for the small roots to dry out and the cuttings died.

During the winter of 2025, we also attempted stratifying Sweet Fern seeds with gibberellic acid. We had a small number of seeds germinate from this treatment, but only a few grew to having a main stem with leaves. In early spring we collected approximately 200, 2in. long sweet fern root cuttings and placed them in the misting bed as well. They also appeared to be taking root, but during the mid-summer heat wave, none survived.

We intend to try most of this again in 2026, except we will not try woody Sweet Fern cuttings only root cuttings. We will also put the following alterations in place:

- Reconstruction of the misting bed lines
- Altered medium for blueberry cuttings- we will use a sand and peat mixture
- New cutting hormone for blueberries

- Increased watering and moisture for Sweet Fern root cuttings as well as attempting direct transplant of root cuttings onto restoration site.

Activity 3	
Perform training and knowledge transfer between Mary Gartshore Ecological Consulting and Fleming College staff on seed cleaning and storage methods. The intent of this activity is to support a transition of current seed cleaning activity from Simcoe in Norfolk County to Lindsay in City of Kawartha Lakes and that will include students. Current systems involve collecting seeds near the FNR and then transporting the seeds almost 400km to the south for cleaning. This proposal will reduce seed transportation and will also help develop infrastructure, staff capacity and student learning opportunities and additional training for seed-based restoration.	
Deliverable	
2025	Have at least 1 Fleming staff member attend Mary Gartshore Ecological Consulting's seed cleaning facilities for 2 days to learn additional techniques for seed cleaning (removing outer sheaths around fruits/seeds) to prepare them for planting. This visit will target specific species, and equipment uses based on the prior year's experiences.

2025 Activity 3 Actions Completed

Due to the fall 2025 labour disruption (support staff strike) we were unable to send any technologists to Mary Gartshore's facility. We will do this in 2026.

Activity 4	
Perform site preparation for planting ploughing/tilling and packing of cropped agricultural fields to prepare them for seeding after their final harvest. Crop residues will be ploughed into the soils and seed banks of annuals will be released. Following site preparation, acorns/nuts will be planted using a tractor-mounted tree planter and seeds will be spreader using a tractor-towed broadcast seeder.	
Deliverable	
2025	Plough, pack, and seed 22ha.

2025 Activity 4 Actions Completed

In the spring of 2025, we seeded acorns (machine-based tree planter), on 17.3ha of the Featherstone MapleCross property. We then hand seeded large seed, and broadcast seeded

the overwintered seed (from last year's report) on that area. We also added additional seed to 0.2ha of that area which included 1.38kg from 19 species using hand seeding.

In fall 2025, we tilled 21.8ha of the Featherstone property for planting. We planted this area with acorns using a tree planter. Unfortunately, the weather turned to rain and heavy snow and we were once again unable to perform our fall broadcast seeding. We will overwinter the seeds, they are mixed and ready to spread and will seed as soon as possible in spring.

Activity 5
Use herbicide (ex. Garlon) to treat invasive species that threaten the creation of habitat. Invasive species, generally found in the hedgerows on the site, include Autumn Olive, Tartarian Honeysuckle, Black Locust, European Buckthorn and Black Swallowwort. Due to variations in access, densities, and methods for different species this deliverable will be based on performing a specified number of days of treatment.
Deliverable
2025 Perform 4 days of herbicidal treatment.

2025 Activity 5 Actions Completed

In 2025, we performed herbicidal treatments throughout the property, but due to additional funding received by the Oak Ridges Moraine Land Trust, these treatments were not paid from our budget. We intend to take on additional treatments in 2026. In 2025, Fleming College's forestry program brought its students to the site to perform mechanical removal of invasive and aggressive species that were negatively affecting restoration (Manitoba Maple, Black Locust, and Bitternut Hickory). Using chainsaws, more than 20 students treated more than 1.5km of linear hedgerows to reduce the seeding of these species as well as their allelopathic effects. In 2026, we will need to perform significant chemical treatment of Manitoba Maples in the areas we seeded in 2025. We also have significant invasion by Black Locust in an area we seeded in 2024.