



FOREST GENE CONSERVATION ASSOCIATION

Submission to regulation proposal number 019-2636 posted by the Ministry of Environment, Conservation and Parks

The Forest Gene Conservation Association acknowledges the government's actions to offer innovative and coordinated ways to mitigate the impacts to species at-risk resulting from economic development projects. The Forest Gene Conservation Association supports the government's objectives to avoid, or when necessary, provide an overall benefit from any impacts on species at-risk. A species of particular interest to the Forest Gene Conservation Association is *Juglans cinerea* (Butternut).

Who is the Forest Gene Conservation Association?

The Forest Gene Conservation Association (FGCA) is a unique, not for profit corporation, which focuses on the conservation of genetic diversity, the foundation of resilient forests. Our vision is of a genetically diverse, resilient forested landscape in Southern Ontario that supports healthy ecosystems, healthy people and a healthy economy.

The FGCA's goal is to assist forest practitioners to conserve genetic diversity of southern Ontario forests, by implementing 4 strategies:

- **Species Conservation-** Implementing recovery programs for at-risk woody plant species
- **Seed Management Expertise-** Ensuring the supply and use of high-quality, locally adapted woody plant seed
- **Climate Change Adaptation-** Providing strategic forest management advice and facilitating assisted migration
- **Education and Advocacy-** Increasing awareness and expertise in forest genetic management principles and practices

FGCA's contributions to the provincial and federal government on Butternut

The FGCA and its network of businesses, contractors, nurseries, seed managers and suppliers, Conservation Authorities, First Nations, woodlot owners, sustainable forest licencees, universities and government representatives (municipal, provincial and federal), have developed and continue to operate and build upon a comprehensive Butternut Recovery Program based on the recommendations provided in the recovery strategy under the federal Species At Risk Act (SARA). With respect to



Butternut recovery in Ontario, the FGCA has aligned our efforts with the Provincial government response statement for this species.

Butternut recovery is complex and requires a many decades long planning horizon. It also requires recognition of the social reality that most of Ontario's Butternut is on private land. Landowner education and assistance and their conservation of Butternut is the foundation of the recovery effort. FGCA's efforts began with landowner outreach in the early 1990s. Without their assistance we would not be able to address FGCA's highest, and arguably Butternut recovery's highest priority recovery objective which is a Butternut Archive Program. A program which is built upon finding trees that are tolerating the canker and archives that genetic material in seed orchards. The goal of our archive program is to produce seed from those many archived trees, and introduce that potentially tolerant genetic material back onto the landscape in the form of seedlings. This program has many sub elements including: the design of a health assessment protocol where trained field people help us locate trees to archive; the development of cloning and seed orchard management expertise and capacity; and, the assessment of Butternut population and site characteristics to inform strategic reintroduction and plantation and natural stand management efforts.

The most critical element of a successful and sustainable program is long-term and predictable funding. The early establishment phase to archive one putatively canker tolerant tree in Butternut seed orchards is 7 years long - from source tree location to semi-mature grafts in a protected orchard to successful pollination and the production of seed. Such grafts will then be managed for decades to cross pollinate other such grafts to produce seed which will then be grown into seedlings to distribute and monitor across southern Ontario. Those reintroduction efforts will require years of tending to ensure early survival and eventually a self-perpetuating stand of canker tolerant Butternut.

Significant investment has been made to date in the FGCA Butternut Archive Program with 5 seed orchards of over 125 putatively tolerant trees - a significant and invaluable gene pool, capable of producing putatively tolerant progeny for reintroduction and recovery of the species. Ours is the only program in Ontario that is addressing the SARA Recovery Strategy Objective to archive 10 trees per Ecodistrict. It is in the best interest of both the provincial and federal governments to ensure this investment is protected and acknowledged, especially given the continued loss of Butternut trees and habitat across Ontario due to the canker and due to permitted and illegal removal of thousands of healthy Butternut trees. Butternut is naturally dropping out of the landscape because it is an early successional, short-lived tree species that is not tolerant to shade. The next 20-30 years are critical for this species at risk.

In order to ensure that organizations like the FGCA, its partners and the MECP continue to carry out strategic recovery actions for Butternut, it is critical that the proposed Conservation Fund Agency (the Agency) recognize the complex and thus constantly changing nature of archiving and charge an adequate fee to the proponent removing or harming Butternut, when the Conservation Fund option is selected.



The FGCA maintains itself as a primary source of Butternut expertise in Ontario which is sought after by researchers and practitioners in Ontario, across Canada and in the United States. Our network has contributed years of funding and in-kind support to develop a robust program which is also contributing to the conservation and recovery of other at-risk woody plant species. The FGCA is willing and able to support the Ministry of Environment Conservation and Parks (MECP) and associated ministries to ensure the best possible outcomes for Butternut under these new proposed changes and others to come in the future.

Based on the *proposal under the Endangered Species Act to enable the use of the Species at-risk Conservation Fund and to streamline authorizations for certain activities that impact species at risk, while maintaining protections for species at-risk*, the FGCA has the following feedback and recommendations:

- The Agency and the MECP hire the expertise of the FGCA when developing any Butternut related material, beneficial actions and the Agency's Butternut plan; whether it is landscape level analysis, charges to proponents, planting Butternut or archiving Butternut. This is to ensure information is up to date, operationally possible and effective.
- The Agency and the MECP communicate to organizations like the FGCA the annual number of authorizations for Butternut Category 2 and 3 trees under the ESA to allow us to provide the MECP with current costs for recovery actions. This would ensure the proponent is receiving fair valuation, but most importantly ensure the beneficial action variable is accurate for the species. In our experience costs vary annually, most often increasing, especially how the search for archivable (Category 3) trees is becoming more challenging.
- The Agency establish a roster of proven and credible partners based on meaningful criteria that can deliver and maintain beneficial actions for the six species at risk. This prevents activities from occurring that may not lead to effective overall benefit for the six species.
- The MECP allow proponents to continue to work with experts outside of the Conservation Fund to complete beneficial actions.
- The Agency and the MECP need to recognize that charges for beneficial actions with this new proposal cannot be compared to charges that the proponent would have received typically. This is a new structure with unknowns for organizations undertaking beneficial actions e.g. timelines, funding security, additional reporting, inflation, restrictions in adjusting charges related to economies of scale, costs of predation, drought, infrastructure maintenance, etc. These are not costs that the proponent had to bear previously as they have benefited from programming and efficiencies that had been developed over a decade.
- The MECP ensure that timelines and costs for the approved activity take into account the role of a Butternut expert like FGCA to assess Category 3 trees for their archive potential. That is, if the tree is determined to be a Category 3 tree or a Category 2 (which may have archive potential), we would appreciate the opportunity to assess the on-site tree for archive potential in relation



to the FGCA queue of archivable trees. This queue has been developed over a number of years to substitute for Category 3 trees removed on site in order to expedite the proponents activities. This substitute led to a higher charge to the proponent. Creating and maintaining this queue is becoming increasingly important because of the diminishing number of archivable trees on the landscape.

- The Agency publicly communicate its focus and allows for public review, and/or professional review of the focus for funding along with the Conservation Fund species plans.
- The Agency ensure that the funding be utilized in Ontario to support species recovery capacity **in Ontario**, not just benefitting a Conservation Fund species in Ontario.

Regarding the expansion of eligibility for existing conditional exemption activities for Butternut:

Regarding BHAs and Training:

- The original retainable vs. non-retainable (now Category 1-3 tree assessment system) was based solely on FGCA development of the Butternut Health Assessment (BHA) system in 2007 (pre ESA). The Ministry of Natural Resources and Forestry adopted it in 2008.
- The FGCA wants to ensure the integrity of the assessment process, which has in the last few years been changed and actually created additional pressure on the species. The BHA model has been evolving but was never fully implemented to include; auditing of assessments by a Butternut expert, and continuous communication with all BHA's, to ensure they were updated on new science, policy direction, and efficiencies obtained in practice. With the proposed changes under this proposal, **the Butternut health assessment becomes a critical point of inflection, and can undermine the success of Butternut recovery in Ontario.**
- Regarding the definition of 'Qualified Professionals', it is essential that training be a part of this system. In our experience teaching hundreds of BHAs, the lay person, a forest technician and an arborist could complete equally good or bad assessments, depending on their experience applying the criteria, which is very specific to Butternut and to the canker fungus. Oftentimes additionally clarity is necessary to adequately assess if a tree is tolerating or possibly successfully fighting off the canker. Occasionally the professional tries to take a hazard tree approach to Butternut health assessments which may lead to an incorrect assessment of disease tolerance (Critical for determining the categorization of Category 3 trees).
- The FGCA recommends that the MECP develop the capacity to audit the Butternut Health Assessment process, strategically by targeting BHAs that continually report 10 or less Category 2 trees, as well as those that undertake few assessments in a year.



Regarding Category 2 (healthier) trees :

- The FGCA is concerned that the current exemption for 10 or less Category 2 trees and overall benefit activities to plant, may not be effective recovery efforts for the species. The presence of 10 or 15 individuals could indicate ideal Butternut habitat conditions, evident through successful regeneration. Before the change is made to increase the exemption to 15 or less Category 2 trees, we advise that an evaluation of the planting programs be done to determine if there has been any overall benefit associated with this exemption.
- We argue that the progression of the canker and development pressures on Butternut have been adding up significantly in the last 10 years, therefore a local population of five or more Category 2 trees (which by definition are tolerating the canker), could represent the capacity needed to ensure the evolutionary ability that a Butternut has to endure the canker and any other pressure.
- Butternut Health Assessors have expressed to FGCA that the pressure to improperly evaluate a Butternut Tree(s) as Category 1 or Category 2 tree, or not document/find all the Butternut trees was real and evident.

Regarding Category 3 (potentially canker tolerant) trees:

- **The FGCA recommends that Category 3 trees not be considered for conditional exemption under the ESA** as Category 3 trees have the greatest value to recovery as an individual persisting in their natural habitat and in contributing to archiving and planting programs.
- The MECP (or an organization or individual) should reserve the right to have access to Category 3 trees which have the greatest potential to contribute to Butternut recovery programming in Ontario.
- Based on our experience, it is becoming increasingly challenging to find canker tolerant specimens. Furthermore, identifying tolerance characteristics is challenging for many trained individuals and it will be likely that those characteristics will be missed in an assessment by an untrained individual.
- Before allowing any Category 3 trees to be removed under the conditional exemption, the FGCA encourages the MECP to undertake an evaluation of the overall benefit achieved in exchange for allowing any Category 3 trees to be removed, and evaluate the effect of those removals on the distribution of residual Butternut in Ontario,
- **If the MECP moves forward to broaden conditional exemptions for both Category 2 and Category 3 trees, at the risk of encouraging further removal of a greater number of individuals and their habitat, the FGCA recommends that the Butternut Archive Program receive a consistent and predetermined amount of funding from the Conservation Fund annually.** This will ensure that the genetic diversity of the species is better captured in a long term, managed



program. Butternut is at a tipping point - where there were once thousands of trees, there are now too many trees being lost to pressures other than natural old age and the canker. Additionally, regeneration is limited due to the loss of habitat amongst many other reasons. Now is the time to capture as much of the genetic diversity of the species as possible.

Key Messages

- **The FGCA is Ontario's Butternut and at-risk woody plant species expert.** The FGCA has built significant expertise, an expansive network, and infrastructure that supports local businesses, long-standing partnerships with proponents, and ultimately the long-term vision necessary for the success and recovery of Butternut. Decisions made about Butternut and associated activities will benefit from our input. This deep-rooted programming will also support other woody plant species that are at risk in Ontario.
- **Long term predetermined funding to maintain an archiving program is essential to help this species persist on the landscape in Ontario.** If the MECP broadens the conditional exemptions for both Category 2 and Category 3 trees, which in effect removes the healthiest Butternut trees, their reproduction potential, and their habitat, the FGCA recommends that Butternut Archiving Program receive a consistent and predetermined amount of funding from the Conservation Fund annually.
- **The FGCA wants to ensure the integrity of the assessment process.** The ESA's ability to protect Butternut depends on the skill and integrity of Butternut Health Assessments. The MECP should develop the capacity to audit the Butternut Health Assessment Process and provide training.
- **Category 3 trees should not receive conditional exemption under the ESA.**
- **Butternut recovery is complex, unique and requires a multi-year planning horizon and predictable funding support.** It requires a long-term vision, local and international expertise, strong partnerships, and the support of large and small businesses to execute effectively. This network, passion and vision exist in the FGCA.
- **The FGCA has learned from Butternut recovery activities which can be applied directly to other tree species at-risk with modifications to suit the individual species.** Beech, Hemlock and Ash for example are currently not listed but face similar threats to those impacting Butternut.

With the proposed changes, the FGCA recommends that we become funded partners to work alongside the MECP and the Agency on matters pertaining to Butternut, this would include:

- overall benefit recommendations;
- research on the status of Butternut in southern Ontario;
- lessons learned from Butternut to benefit other at-risk species;



- development of the Agency's Butternut Plan;
- creating workshops and educational sessions regarding Butternut health assessments;
- auditing qualified professionals on Butternut Health Assessments;
- complete archivable tree searches;
- complete local landowner tree planting;
- managing protected butternut stands;
- evaluating Butternut planting and archiving effectiveness; and
- evaluating costs of beneficial actions.

The Forest Gene Conservation Association acknowledges the government's actions to offer innovative and coordinated ways to mitigate the impacts to Butternut resulting from economic development projects. The FGCA continues to support the government's objectives to avoid harming or destroying Butternut and its habitat.

We appreciate your consideration of our recommendations. Please contact me if you have any questions or require further clarification.

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