

December 22, 2022

The Honourable Graydon Smith  
Minister of Natural Resources and Forestry  
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Dear Minister Smith,

**Re: [ERO #019-6161](#) – Conserving Ontario’s Natural Heritage**

We, the 56 undersigned organizations, are deeply concerned about the proposed development of a natural heritage offsetting policy in the context of current major legislative and policy changes that are eroding environmental protections across the province (e.g., changes to the *Conservation Authorities Act*, the *Planning Act*, and the Ontario Wetland Evaluation System, removal of lands from the Greenbelt). Although the Ministry of Natural Resources and Forestry (MNRF) is proposing a net-gain approach, decades of evidence suggest that even no net loss is rarely achieved through offsetting. We urge extreme caution should MNRF choose to proceed, and request that you strike an expert panel to advise on policy options and carry out full Indigenous and public consultation on the draft policy if and when it is developed.

Natural heritage or ecological offsetting involves a very risky trade-off whereby conservation actions, such as ecosystem restoration or recreation, are undertaken to compensate for the destruction of natural communities and features. Ecological offsetting policies are often guided by the goal of ensuring no net loss of natural values. However, research demonstrates that this goal is seldom achieved due to weak policy requirements, knowledge gaps, lack of appropriate offset sites, time lags between negative impacts and full compensation, and limited ability to restore or recreate ecosystems that function as well as natural systems. Additionally, climate change and invasive species are resetting the world’s understanding of effective ecological restoration. Due to the significant risks and uncertainties, ecological offsetting has the potential to open the floodgates to dramatically increase the loss of ecosystem area and function if it is not approached with the utmost caution.

**1. Inappropriate purpose and timing of developing the policy**

There are limited circumstances in which ecological offsetting is appropriate and necessary, such as linear types of infrastructure development (highways, pipelines and hydro-lines) that cannot avoid natural areas. Offsetting should not be used as a tool for allowing subdivisions or commercial/industrial development to destroy existing natural areas. This is especially the case in southern Ontario where such development should

work around existing natural areas that typically only cover a small percentage of the landscape.

Therefore, we strongly object to the misleading and misguided rationale provided for developing a provincial offsetting policy at this time: i.e., to support the government's efforts to address housing shortages. There is no evidence of a need for development on existing natural areas to address the housing crisis and this should not be the context in which a provincial ecological offsetting policy is developed. The amount of land already designated for development and added to municipal settlement boundaries far exceeds what is needed to meet long range housing targets. That includes, for example, 86,500 acres within the Greater Toronto and Hamilton Area alone. As stated by Ontario's Housing Affordability Task Force, a shortage of land isn't the cause of the shortage of housing:

Land is available, both inside the existing built-up areas and on undeveloped land outside greenbelts ... Most of the solution must come from densification. Greenbelts and other environmentally sensitive areas must be protected, and farms provide food and food security. Relying too heavily on undeveloped land would whittle away too much of the already small share of land devoted to agriculture. ([Housing Affordability Task Force, 2022, p. 10](#))

**Value and scarcity of natural heritage areas:** Wetlands and woodlands in southern Ontario are precious, valuable and rare. Wetland loss in southern Ontario since settlement by Europeans [exceeded 72 percent](#) by 2002, and loss since that time has been ongoing. Forest cover has been similarly affected and in [many watersheds is insufficient](#) (i.e., less than 30 percent). These and other natural areas provide benefits to communities that are more necessary than ever in the context of climate change and the health impacts of the COVID-19 pandemic. Wetlands and forests mitigate climate change by storing carbon, buffering communities from floods and droughts, regulating temperatures at the local scale, and attenuating the impacts of extreme weather events. The [mental health](#) and recreational benefits of natural spaces are now well understood. The benefits provided by forests and wetlands in southern Ontario alone are valued at over [59 billion dollars per year](#). An offsetting policy that is focused on enabling housing rather than on valuing and protecting natural heritage will lead to the unnecessary destruction of spaces that Ontarians simply cannot afford to lose.

**Recommendation 1:** MNRF should account for the full range of ecosystem benefits in determining whether and how to proceed with developing an ecological offsetting policy.

**Multitude of interacting proposals:** We have significant concerns about the efficacy of an ecological offsetting policy developed and implemented in combination with the suite of other damaging law and policy changes currently underway. For example, [changes to the Planning Act and the Conservation Authorities Act](#) will undermine landscape-scale environmental planning by removing conservation authorities (CAs)

from land use planning processes and preventing CAs from assisting local municipalities with their new responsibilities. Ontario's CAs have significant knowledge and expertise in environmental planning, conservation land management and ecological restoration. Their participation in planning processes is essential if there is to be any hope of achieving a net positive result that maintains ecosystem benefits, avoids costly flood damage and protects biodiversity. Further, proposed [changes to the Ontario Wetland Evaluation System](#) (OWES) will leave more of Ontario's imperiled wetland ecosystems vulnerable to development as many will lose or never receive designation and protection as Provincially Significant Wetlands (PSWs). Wetland losses already accelerated by the proposed changes to OWES will be exacerbated by a provincial ecological offsetting policy.

**Recommendation 2:** MNRF should fully assess the cumulative impacts of the interacting law and policy changes underway before developing an offsetting policy.

## **2. Avoidance first, strict limits to offsetting, and net gain**

**Avoidance first:** We agree that an ecological offsetting policy must prescribe an "avoidance first" approach. This approach is also known as the mitigation sequence, whereby all reasonable efforts must be taken to avoid, minimize and mitigate negative impacts on the existing ecosystem before considering ecological offsetting to compensate for any residual damages. Inconvenience to the project must not be accepted as a viable reason not to pursue efforts to avoid, minimize or mitigate impacts. Additionally, a description of the minimum actions required to strictly adhere to each step of the mitigation sequence has been emphasized as a critical component of any ecological offsetting policy by experts such as the [Business and Biodiversity Offsetting Programme](#) (BBOP), Ontario's [Wetland Conservation Strategy Advisory Panel](#) and [Ontario Nature](#).

**Recommendation 3:** If MNRF proceeds with developing an ecological offsetting policy, it must require an avoidance first approach and set out means to document and evaluate project adherence to each step in the mitigation sequence before offsetting is allowed.

**Limits to offsets:** Some ecosystems should be strictly off-limits to offsetting. In many cases, negative impacts cannot be offset due to long establishment times, irreplaceable ecological functions and values, and/or the pressures all ecosystems face due to climate change. MNRF's discussion paper begins to set limits to what can be offset by stating that coastal wetlands, southern Ontario bogs and fens and other areas with historical recreational and cultural importance will be ineligible. We support these limits, but they need to go much further to apply to all natural heritage features that cannot be replicated due to their age, diversity, rarity, significance or sensitivity. For example, treed swamps and forests or wetlands on organic substrates that take many years to develop should be off limits to offsetting. The list of exclusions should also include groundwater-fed wetlands, headwater wetlands and forests, natural areas that

support rare species, provincially rare natural communities (e.g., prairies, alvars, savannahs, Great Lakes shorelines), old-growth forests, and wetlands and woodlands where they cover less than 10 percent of the Ecodistrict. All PSWs, all Areas of Natural and Scientific Interest (ANSIs) and significant features and systems in the Niagara Escarpment, Oak Ridges Moraine and Greenbelt Plans, should be off limits to offsetting.

**Recommendation 4:** If MNRF proceeds with developing an ecological offsetting policy, all natural heritage features and systems that cannot be replicated due to their age, diversity, rarity, significance or sensitivity should be strictly protected and off limits to offsetting. The list of exclusions should include: all bogs, fens, treed swamps, PSWs, wetlands and forests on organic substrates, headwater wetlands and forests, provincially rare natural communities, ANSIs, old-growth forests, provincially significant woodlands and wildlife habitat, and significant features and systems in the Niagara Escarpment, Oak Ridges Moraine and Greenbelt Plans.

**Net gain:** We completely agree that the overall goal and result of ecological offsetting must be to provide a net gain in both natural heritage area and function. However, recent research indicates that ecological offsetting, especially for wetlands, has consistently failed to achieve even “no net loss” goals to date ([Accatino et al. 2018](#), [Price et al. 2019](#), [Theis et al. 2019](#), [Tillman et al. 2022](#), [zu Ermgassen et al. 2019](#)). Despite policy goals to prevent net loss of natural areas through offsetting, losses are still occurring due to the significant risks and uncertainties of offsetting practices. Achievement of “net gain” requires strong policy and must be measured according to ecologically and socially relevant metrics to account for and address these risks and uncertainties. Further, net gain should be measured at multiple levels, including the municipal, watershed and sub-watershed level. If gain is measured only at the provincial level, this could result in declines and even extinctions of species and natural communities in parts of southern Ontario, such as the Carolinian zone.

**Recommendation 5:** If MNRF proceeds with developing an ecological offsetting policy, the goal must be net gain, with replacement ratios based on sound evidence that account for not only area but also the full suite of functions and values impacted. Clear rules must be set for measuring and tracking net gain at multiple levels, including the municipal, watershed and sub-watershed level.

### **3. Elements of offset design and implementation**

Careful design and implementation based on the best available knowledge is crucial to increasing the likelihood of success of ecological offsetting projects.

**Location:** A clear requirement to locate ecological offsets as close to the impacted site as possible is needed to ensure ecosystem functions and benefits are replaced in the area (e.g., municipality, watershed, sub-watershed) from which they are removed. While a watershed serves as a logical functional unit for land use planning ([Wang et al.](#)

[2016](#)), some in southern Ontario (e.g., the Grand, Don and Rouge Rivers) are too large to allow effective compensation for losses to the affected landscapes and communities. In such cases, offsetting should occur within the same sub-watershed. Furthermore, identifying locations for effective offsets must consider ecosystem structure, function and connectivity at both the site being impacted and the candidate restoration site. Location selection must also effectively consider community values. Identifying an appropriate location for an ecological offset based on site conditions and proximity to the impacted site can be extremely difficult, especially in heavily developed areas ([Yu et al. 2018](#)).

**Recommendation 6:** If MNRF proceeds with developing an ecological offsetting policy, it must set out a science-based process and criteria for determining the location of offset sites so that they are ecologically relevant and meet the needs of the impacted community. Before development is permitted to occur, offset sites should be identified, obtained, and approved by the relevant planning authority, with agreements in place to fund, manage and monitor the offset site.

**Timing:** An ecological offsetting policy must accommodate for the time lag between when impacts occur and when an ecological offset is established and its benefits are realized. It takes time for a newly restored ecosystem to develop the full range of ecosystem functions and biodiversity values as a mature natural ecosystem. Wetland ecosystems, for example, often require 10 to 1,000 years or more to recover their original biodiversity values after a disturbance, even when supported by active restoration efforts ([Pezzati et al. 2018](#)). For forest ecosystems, tree biomass and canopy cover in Canadian forests may recover from disturbance within 10 to 40 years, but may take up to 100 years ([Bartels et al. 2016](#)). This does not include the time it takes for mature forest functions and species to return, which requires much more time. These time lags become significantly exacerbated when ecological offsetting is pursued through payments to a compensation fund. As noted above, many ecosystems should be off limits to offsetting, given the impossibility of replacing them in any meaningful timeframe.

**Recommendation 7:** If MNRF proceeds with developing an ecological offsetting policy, it must require that offsets be initiated before impacts occur, or as soon as possible thereafter. At a minimum, detailed offsetting design and funding agreements must be in place before impacts occur. Replacement ratios should reflect anticipated time lags and uncertainty.

**Compensation Fund:** Given our concerns about location and timing and evidence that in-lieu fee programs often face procedural challenges ([Stephenson & Tutko 2018](#)) we do not support the development of a compensation fund. Such a fund would make it far easier and thus more likely for habitat destruction to occur. It would also undermine requirements to ensure and track whether there is full compensation for negative



impacts in the watersheds, municipalities or Indigenous traditional territories where the harm occurs.

**Recommendation 8:** If MRNF proceeds with a compensation fund, it should allow the fund to be used only in limited circumstances where the impact and associated offset are too small to support meaningful net gain.

**Long-term:** The ecological offsetting policy must ensure the long-term protection and maintenance of offset projects. The policy cannot allow ecological offsets that are established to be destroyed and “offset” somewhere else several years later.

**Recommendation 9:** If MNRN proceeds with developing an ecological offsetting policy, it must require that areas restored as an ecological offset be protected in perpetuity.

#### **4. Monitoring, transparency and enforcement**

There must be regular monitoring, management and reporting of offsetting implementation to ensure that all required elements are being delivered and desired outcomes are being achieved. This is to verify that policy objectives are being met, to facilitate learning from past experiences, and to enforce corrective actions where projects are failing.

Research consistently indicates significant differences in the biodiversity and ecological function of wetland offsets compared to natural wetlands ([Accatino et al. 2018](#), [Price et al. 2019](#), [Theis et al. 2019](#), [Tillman et al. 2022](#)). Monitoring should be required for as long as needed to confirm that the offset has been successful in compensating for all negatively impacted values.

We appreciate MNRN’s proposed commitment to transparency and accountability. However, establishing a long-term monitoring and management protocol as part of the ecological offsetting policy will not be enough without requirements for transparent reporting and effective use of this information. Offsetting plans and monitoring results must be made easily accessible to the public so that interested individuals and independent bodies may review the results at will. Establishing high standards for offsetting practice in policy is only the first step to ensuring effective offsetting in practice. These standards must be enforced in a meaningful way, or we can expect that corners will be cut, and policy goals and standards will not be achieved.

**Recommendation 10:** We recommend a publicly accessible registry of projects that tracks project implementation, monitoring records and achievement of objectives. Furthermore, an independent body should be established to oversee offset project adherence to policy and project-specific requirements. This body should have the power to audit performance, apply penalties and enforce corrective actions where offset projects are in violation of these requirements, with the project proponent held

financially responsible. To address potential non-compliance or underperformance, letters of credit and enforcement mechanisms should be considered.

## **5. Meaningful engagement**

Should MNRF decide to proceed with the development and implementation of an ecological offsetting policy, it must make every effort to meaningfully engage Indigenous communities, other expert knowledge holders and interested members of the public. This will ensure that the policy reflects the best available knowledge and the interests of affected Indigenous and non-Indigenous communities.

Indigenous communities in Ontario have long been wrongfully excluded from land use planning processes and decision-making. The Government of Ontario has an opportunity to demonstrate a real commitment to truth and reconciliation with Indigenous peoples by including specific commitments to engage with all interested and affected Indigenous communities through this endeavor. We support the statement that ecological offsetting should consider all available knowledge, including Traditional Ecological Knowledge, but there needs to be a stronger commitment to ensuring meaningful and respectful engagement with Indigenous communities throughout the entire process. There should be zero tolerance for tokenistic consultation with Indigenous groups and there needs to be a pointed effort to uplift and make space for Indigenous leaders in the design and implementation of ecological offsetting policy and practice.

We also request that other relevant experts (e.g., conservation authorities, environmental organizations, academic researchers) and affected communities be provided with meaningful opportunities to contribute to the development of a provincial ecological offsetting policy. Many groups and individuals hold considerable knowledge of ecological offsetting policy and practice. It would be a lost opportunity if these important insights and perspectives were not used to develop the most robust and effective policy possible.

**Recommendation 11:** Establish an advisory panel of ecological experts, Indigenous knowledge holders, and interested stakeholders to effectively address our concerns and recommendations above.

## **Concluding remarks**

We do not support the creation of an ecological offsetting policy within the stated and highly misleading context of accommodating increased housing development. Reduced environmental protections resulting from the passing of Bill 23 and Bill 39, changes to the OWES, and removal of lands from the Greenbelt, have created conditions where achievement of net gain through offsetting, as proposed, will be impossible. In this context, offsetting will contribute to the continued and accelerated loss of natural spaces and the benefits they provide.

If MNRF chooses to proceed with an offsetting policy at this time, we urge you to consider our recommendations above.

Yours sincerely,

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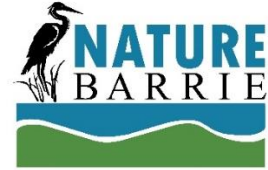
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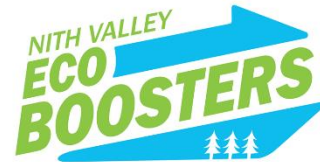
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