

VIA email (Vidya.Anderson@Ontario.ca)

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Vidya Anderson, Project Manager  
Ministry of the Environment and Climate Change  
Environmental Programs Division  
Program Planning and Implementation Branch  
135 St. Clair Avenue West  
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**Re: Developing a Voluntary Carbon Offsets Program for Ontario (EBR Registry Number: 013-1634)**

Dear Vidya,

The Green Infrastructure Ontario (GIO) Coalition supports the Province's leadership in developing a voluntary carbon offset market. GIO also applauds the Government's efforts to become carbon neutral by 2018 and understands that the development of a voluntary carbon offset program is one measure the Province is taking toward reaching its carbon neutral objective. Thank you for the opportunity to comment on the Ministry of Environment and Climate Change (the Ministry)'s Voluntary Carbon Offsets Program discussion paper.

Please find our responses below to the proposed questions outlined in the discussion paper on the EBR:

**1. Are there additional priorities related to the development of the proposed voluntary carbon offsets program that have not been considered in this document?**

GIO supports in principle the priority placed on green infrastructure carbon offsets. As a top priority, GIO recommends that the Ministry define green infrastructure to align with Ontario's Provincial Policy Statement (2014) which states, "Green infrastructure: means natural and humanmade elements that provide ecological and hydrological functions and processes. Green infrastructure can include components such as natural heritage features and systems, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs."

Achieving carbon neutrality requires an understanding of the carbon sequestration and storage capacity associated with different land uses. Therefore GIO urges the Province to proceed with the development of a land use carbon inventory, which the Government committed to in the 2016 Climate Change Action Plan as a priority.

Recognizing that protocols are yet to be developed, GIO recommends that all projects developed under the Ontario voluntary offset program be required to meet the same basic set of criteria that are internationally recognized as critical elements of high quality carbon offset projects, namely: real, additional, permanent, verifiable, and enforceable.

**2. In addition to the five program objectives listed in this discussion paper (see “Getting there”), are there other objectives that you think the Ministry should consider?**

Provincial support should be provided for the development and implementation of green infrastructure-related management plans and strategies that respond to local needs/priorities. Examples of such plans include urban forest and natural heritage plans. As the carbon sequestration capabilities of green infrastructure are largely influenced by the health of the plants and soil involved, proper green infrastructure management practices will be critical. As an example, improved urban forestry practices such as minimum soil volume requirements can allow trees to grow at a faster rate, leading to a higher rate of carbon sequestration. This management practice can also allow new trees to better adapt to the potential effects of climate change (e.g. drought and extreme heat) and to provide greater co-benefits such as stormwater management. It will be important to develop mechanisms to ensure *additionality* in offset market investments beyond the financial resources that have already been committed to the implementation of the aforementioned management plans.

**3. Are there specific barriers to participation in the carbon market that the Ministry should consider when developing the proposed the Ontario voluntary carbon offsets program?**

Transparency around offset protocols, and communications and engagement around the Ontario government’s overall strategy for achieving carbon neutrality, will be necessary to build the confidence of both potential buyers and sellers.

As with most programs, a financial incentive must exist for participation. To help offset the capital and operating costs associated with voluntary carbon offset projects, the Ministry should consider a price floor for the voluntary market that incentivizes projects with greater co-benefits.

Particularly in the context of urban green infrastructure projects, the costs associated with quantification, verification, and ongoing monitoring of carbon offset projects can be a barrier to participation in the market. The Ministry should consider allowing for aggregation of smaller scale offset projects which would provide economies of scale and reduce per unit costs associated with quantification, verification and monitoring. Local conservation authorities and NGOs could be important partners in facilitating project aggregation.

GIO recommends the Ministry look to similar existing carbon offset programs to determine the barriers to involvement in those programs. Some identified barriers to participation in California's urban forest carbon offset program include: restrictions on entities that can undertake the projects (non-profits are not eligible); the long-term commitment of the projects and; the costs associated with monitoring and verification<sup>1</sup>.

#### **4. What is the best way for the Ministry to facilitate community participation in the proposed Ontario voluntary carbon offsets program?**

The Ministry could strengthen partnerships with local delivery agencies, including municipalities, conservation authorities, Indigenous organizations and ENGOs, which have existing relationships and programs supporting local land owners with green infrastructure programs. As a coalition of such organizations, GIO offers the Ministry our support with scoping and implementing these partnerships.

#### **5. What environmental co-benefits (e.g., flood management) should be prioritized in the proposed Ontario voluntary carbon offsets program?**

The program should seek to support projects that reflect locally determined priorities. Additionally, the co-benefits of green infrastructure can be increased by a higher diversity of the types of green infrastructure projects (e.g. parks, street tree projects etc) as well as higher biodiversity used within projects<sup>2 3</sup>. Allowing for adaptive design and management of diverse green infrastructure projects and allowing innovative practices at small-scales could increase the overall co-benefits associated with this program.

The program should also include consideration of employment opportunities associated with implementation, and human health impacts as key co-benefits of the program. Green infrastructure provides a wide range of benefits and in order to fully understand the costs and benefits of implementation and management a wide

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<sup>1</sup> [http://environment.yale.edu/docs/carb\\_policy\\_memo.pdf](http://environment.yale.edu/docs/carb_policy_memo.pdf)

<sup>2</sup> Calderón-Contreras, R., & Quiroz-Rosas, L. E. (2017). Analysing scale, quality and diversity of green infrastructure and the provision of Urban Ecosystem Services: A case from Mexico City. *Ecosystem Services*, 23, 127-137.

<sup>3</sup> Lundholm, J. T. (2015). Green roof plant species diversity improves ecosystem multifunctionality. *Journal of Applied Ecology*, 52(3), 726-734.

variety of benefits need to be incorporated into decision make; otherwise beneficial offset opportunities could be overlooked.

#### **6. What project types should be a priority for the Ontario voluntary carbon offsets program?**

Green infrastructure projects that provide additional co-benefits for communities should be prioritized. Projects that provide benefit to marginalized communities should also be prioritized, with consideration for and mitigation strategies to address the potential negative consequence of greening projects that can occur with a lack of consideration for community needs and desires to protect social as well as ecological functions<sup>4</sup>.

#### **7. What actions can the Ministry take to support viable end markets for Ontario voluntary carbon offset credits?**

GIO suggests that the Province prioritize the public release of its long-term strategy for carbon neutrality. This strategy could serve as a rallying point for other public and private sector organizations to follow and align themselves with the Ontario Public Service. Building on this point, consider facilitating the development of a public recognition program that rewards public and private sector organizations for adopting and achieving carbon neutrality commitments.

Furthermore, the Ministry can take steps to encourage the development of a wide geographical distribution of projects within the voluntary offset market, so as to encourage local organizations across the province to participate by enabling them to support projects within their community. See for example the initiative of a group of local governments in BC who are pioneering the development of a local carbon offset program.

#### **8. Are there existing standards or methodologies that you feel the Ministry should consider when developing requirements for the creation of carbon offsets projects?**

- [Gold Standard Verified Emission Reduction \(VER\)](#)
- [Climate Community and biodiversity standard](#)
- [Climate Action Reserve Urban Forestry Protocol](#)
- [TRCA Integrated Restoration Prioritization: a multiple benefit approach to restoration planning](#)
- [Urban Forest Carbon Registry, City Forest Credits \(US\)](#)
- [Tree Canada Afforestation and Reforestation Protocol](#)
- [Canadian Standards Association's Registered Carbon Neutral Program](#)

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<sup>4</sup> Wolch, J. R., Byrne, J., & Newell, J. P. (2014). Urban green space, public health, and environmental justice: The challenge of making cities 'just green enough'. *Landscape and Urban Planning*, 125, 234-244.

## General Comments

If established and implemented carefully, the voluntary carbon offset program could serve as a market based instrument for increased carbon-sequestering by green infrastructure with associated co-benefits for communities across Ontario. GIO supports a program that provides synergy between climate change mitigation and adaptation efforts. In this new program, the Province should aim to enable projects that genuinely offset carbon while also preparing communities for future climates.

The Province should continue to develop a scientific understanding of the carbon capture capabilities of different green infrastructure components. Infrastructure funding could be used to help municipalities to inventory existing green infrastructure and measure current levels of service including carbon sequestration services. GIO extends its assistance to the Ministry in completing a cost-benefit analysis of different green infrastructure voluntary carbon offset projects.

We strongly support the sentiment expressed in the latest IPCC report: “Local governments may be able to address both adaptation and mitigation using pre-existing tools and policies such as building standards, transport infrastructure planning, and other urban planning tools”. Additionally, enhancing coordination in governance can help overcome regional constraints associated with mitigation, adaptation and disaster risk reduction<sup>5</sup>. The Government of Ontario has several ministries with proposed regulations/guidelines/funding mechanisms that GIO believes could play a role in climate mitigation and adaptation. Such proposals include:

- The MOECC’s Low Impact Development Stormwater Management Guidance Manual should be finalized as soon as possible.
- The MOI’s proposed municipal asset management planning regulation should be finalized. GIO promotes the inclusion of living green infrastructure assets in this regulation.
- The MOI’s bilateral agreements with Infrastructure Canada through the Investing in Canada Plan should include a 15% allocation for living green infrastructure. This will generate significantly more public benefits than a grey infrastructure only approach.

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<sup>5</sup> [http://ar5-syr.ipcc.ch/topic\\_adaptation.php](http://ar5-syr.ipcc.ch/topic_adaptation.php)

GIO would like to reiterate our support for the Voluntary Carbon Offsets Program; we are interested in further engagement with the Province to assist with defining the scope of the program through a green infrastructure lens.

### Green Infrastructure Ontario Coalition Background

Over the last nine years the GIO Coalition has successfully promoted the implementation of green infrastructure across Ontario. With over 140,000 people working full time in the industry, from nurseries to designers to contractors, GIO provides a united voice for the sector. The green infrastructure we promote includes both natural systems and green technologies that support natural systems.

Respectfully,



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