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By Email: Rebecca.Zeran@Ontario.ca
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Dear Ms. Zeran:

Re: Wetlands Conservation in Ontario - Discussion Paper
EBR 012-4464

Ontario Rivers Alliance (ORA) is a Not-for-Profit grassroots organization acting as a voice for several organizations, stewardships, associations, and private and First Nations citizens who have come together to protect, conserve and restore healthy river ecosystems all across Ontario.

ORA strongly supports the development of a strong and comprehensive Strategic Plan for all Ontario Wetlands. An action plan to stop the ongoing destruction of wetlands and the growing threats related to development, climate change and pollution are long overdue. Unfortunately, the current hodgepodge of legislation, regulations and policies have proven to be conflicting, and inadequate to stem the loss and degradation of many wetlands throughout the province.

ORA offers the following comments and recommendations:

1. What are the current challenges to wetland conservation in Ontario?

ORA sees many challenges to wetland conservation in Ontario; however, one of the biggest challenges has been the lack of an overall strategy for protecting and conserving all wetlands – not just those with special significance, but right across the province. ORA is very pleased that the the Ontario government has begun this discussion on a wetland conservation strategy.

The threats to Ontario wetlands are mounting due to population increase and large scale project development, such as the Energy East and Line 9 tar sands pipelines, Ring of



Fire, logging, and new and upgraded hydroelectric projects. This Strategy must have a focus on how to eliminate or mitigate the threats from all development projects in Ontario.

Conflicting policy and regulations must be in alignment in order to protect one of our most important defences against the effects of climate change. A Strategic Plan and policy for wetlands must take precedence over all other legislation.

For example, the Green Energy Act has erroneously classed hydroelectric as a renewable energy, and has provided incentives to produce power during peak demand hours. In order to maximize peak power generation on smaller rivers, waterpower facilities will create a reservoir or headpond (impoundment) above the dam to increase the head and provide water storage. Even with small waterpower projects, the headpond can flood many hectares of land, often including wetlands, can extend for several kilometers upstream, and impact on many more kilometers downstream. To further maximize the power production from a river, multiple cascading waterpower facilities are often constructed, and can involve additional upstream reservoirs and wetlands.

Whether the impoundment is large or small, flooding can destroy or significantly alter some of the most ecologically sensitive areas along the river, including wetlands, and result in the loss of that critical buffer and ability to moderate the effects of climate change. Added together, the cumulative effects on the environment and ecology of a catchment can be substantial.

For instance, the Enerdu hydroelectric facility in Almonte has caused significant damage to the Appleton Wetland, a Provincially Significant Wetland, as a result of the constant fluctuations in water levels - yet an upgrade to this facility was recently approved.

Renewable energy regulations must prohibit projects from locating directly within all wetlands in Ontario, not just provincially significant or significant coastal wetlands. The risk-based approach is used as a convenient exemption in many cases, and must be approached with a great degree of caution.

As noted in the discussion paper, wetlands provide important habitat for endangered species, aquatic life, migratory birds and wildlife, and serve to reduce erosion, filter contaminants, and help absorb or buffer the effects of drought and flooding. When wetlands are permanently or intermittently flooded these important ecosystem services are lost, and the wetland is degraded or destroyed. This can have a profound effect on aquatic life, habitat, and the biodiversity and health of a river system. The fact that most turtle species in Ontario are considered Species at Risk is a testament to the dire state of wetlands in the southern portion of the province.

In the north, the boreal wetlands, and in particular the Hudson & James Bay wetland system has been identified as globally significant...

“Research in recent years has shown that these northern wetlands have stored up and now hold mind-boggling amounts of carbon -- in fact, more carbon than in any other terrestrial ecosystem on earth. Canada's boreal peatlands hold an astonishing 147 billion metric tonnes of carbon, equivalent to 280 years' worth of Canada's annual human-caused carbon emissions. The world's largest peatland system in the world extends from the shores of Hudson and James Bay inland hundreds of kilometers, encompassing 373,700 square kilometers of wetland



wilderness.

Oil and gas extraction, logging, mining and hydroelectric development all pose enormous threats to wetlands.”¹

Climate change, resource extraction (mining, logging), pipelines, urban encroachment, agricultural, hydroelectric and industrial developments are threatening wetlands all across the province; therefore, we must ensure that all wetlands throughout the province are protected and conserved.

Healthy rivers and wetlands are the key to successful adaptation to the extremes of climate change.

2. Priority Areas of Focus

In addition to the three areas of focus set out in the Strategy, to strengthen policy, encourage partnership and improve knowledge, it is essential that the primary focus is to avoid or prevent the loss of wetlands. It is much more cost effective to prevent damage than to repair the damage once it has occurred.

It is imperative that all legislation is congruent and in alignment so as to ensure we are implementing truly “green” energy and infrastructure.

Any strategy must be followed up with rigorous monitoring and compliance policy.

3. Actions and Activities to Improve Wetland Conservation

The Strategy should include traditional knowledge and First Nations participation in any monitoring and compliance policy framework. A partnership with First Nations in this Strategy is essential.

4. Current Wetland Policy Framework

As stated above, it is imperative that all wetlands are conserved and protected under any new policy framework. There must also be a mechanism for regular monitoring and compliance, with heavy consequences (fines) for damage to wetlands.

A “no net loss” policy allows a natural wetland to be destroyed and replaced by a supposedly equivalent new wetland; or a wetland could be damaged provided another wetland’s ecological function is “improved”. In many cases, restored wetlands cannot fully replace the broad range of ecosystem services of a naturally occurring wetland.

This is a convenient means for allowing the continued destruction of naturally occurring wetlands. Creating wetlands is not a simple task. In many cases it requires many years to function fully.

Unfortunately, the Discussion Paper is focused on developing the Wetland Strategy (a good idea) based on a “no net loss” policy for wetlands (a bad idea). Instead, this Strategy should be aiming for a “net gain” policy. There must be a major disincentive to



destroying or damaging existing wetlands. A no net loss policy does not provide such a disincentive.

Wetland protection and conservation approaches must be applied uniformly across Ontario – not just in the south, or where risk is the greatest. This would allow for simple but effective policy to be applied across the entire province.

5. Targets for Wetland Conservation

Targets for protection and evaluation of all wetlands is essential in all basins. Similar to the United States, in order to improve the effectiveness and efficiency of wetland program activities, it is important to articulate an annual province-wide evaluation, restoration and conservation target using a percentage of hectares of land-base. Targets will help focus policy and programs to achieve planned results.

The evaluation process for provincially significant wetlands, and all other wetlands within developed watersheds in Ontario, needs to be prioritized if this Strategy is to be successful. Even in highly developed areas the evaluations have not been initiated. For example, in the Mixedwood Plains Ecozone 460,000 ha (43%) of wetlands have yet to be evaluated. Funding and incentives must be put in place to ensure these studies are completed in a timely manner.

Evaluations must occur whenever development is proposed that would impact on any wetland in Ontario. The evaluation should be conducted by an independent 3rd party environmental consultant, at the expense of the proponent, before any permits or approvals are issued.

6. Approaches

Avoidance of wetland damage or loss must be a strong emphasis in this Strategy. Considering the wide array of ecosystem services that wetlands provide, a net gain strategy is recommended. Offsetting involves risks and trade-offs that are very costly and labour intensive to implement and monitor.

Oversight and compliance are necessary if wetland compensation is introduced.

The Strategy must establish which wetlands are fully protected, i.e. those that must not be degraded or destroyed under any circumstances.

There must be an absolute ban on wetland disturbance/destruction in areas where there has already been heavy wetland loss (much of southern Ontario), as well as for provincially significant wetlands, and a requirement for a net gain, or a major compensatory increase (say 5:1 ratio) for all other wetlands if destruction or damage to a wetland is considered to be absolutely necessary following a thorough environmental assessment. A high ratio might act as a disincentive.

The goal of this Strategy for Ontario wetlands must be to achieve an overall net gain in wetland inventory.



7. Additional Suggestions

a. Climate change

This Strategy must comprehensively reflect the issue of climate change. There is a need for some serious funding to identify the likely effects of climate change on wetlands, as well as on the monitoring of its effects. There must be an evaluation/assessment/recognition of how wetlands will help mitigate the effects of climate change.

An effective model to follow would be the United Nation's Millennium Ecosystem Approachⁱⁱ - a comprehensive assessment of the net benefits versus the costs of the physical, biological and socio-economic impact of the loss of wetlands. Such an approach would assess the consequences of ecosystem change for human well-being, and provide the scientific basis for actions needed to enhance the conservation and sustainable use of those systems, and their contribution to human well-being.

The loss of wetlands and climate change impacts should be part of a full cost accounting of the impact that a proposed development will have on climate change and GHG emissions.

b. Inadequate Funding

Currently funding is inadequate to carry out many of the above objectives, such as mapping and evaluation of wetlands, enforcement of legislation and regulations, addressing invasive species issue, protecting species at risk, providing wildlife passage across roads, and identifying and monitoring the effects of climate change. The Strategy will not be of use unless funding is guaranteed.

c. Invasive Species

Invasive species pose a major threat to wetland biodiversity. The Strategy needs to determine how to mitigate these threats. Once again funding is critical. For example, the Minesing wetlands, located 20 kilometers west of Barrie, is recognized as an Internationally Significant Ramsar boreal wetland, a Provincially Significant Wetland, and a Provincially Significant Life Science Area of Natural and Scientific Interest. It is one of the largest wetlands at 9,330 hectares, and is under direct threat from invasive species.ⁱⁱⁱ

A great example of where invasive species require additional funding is the rampant amount of Giant Hogweed growing in and around South Western Ontario river banks and wetlands. The plant is highly toxic and causes severe rashes and blisters when contact and sunlight are combined. Removal of the plant is a very costly and intensive process and requires dedicated resources trained to handle such a hazardous invasive plant.^{iv}

d. Road Ecology Issues

Many wetlands are bisected by roads which cause habitat fragmentation. Most roads in Ontario have not been constructed with this in mind. It is critical that the planning for all new and rehabilitation road construction incorporate wildlife passageways, fencing, etc.



e. Enforcement of Legislation and Regulations

Often enforcement of current legislation and regulations is inadequate. Enforcement must be fully funded.

Sustainable management of natural resources such as forests, soils, water, wetlands and fisheries are at the heart of conservation, and these resources are the building blocks for green cities, energy production, agriculture, water supply and sanitation systems. Relatively stable ecosystems and species dynamics are indicative of sustainable resource use, and conservation science has been broadening this knowledge to buffer ecosystems and species from negative climate change impacts.

Thank you for this opportunity to provide comments on this important EBR posting.

Respectfully,

Linda Heron
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ⁱ *Why Canada's Wetlands matter to the World*, http://www.huffingtonpost.ca/jeff-wells/wetlands-canada_b_2617200.html

ⁱⁱ <http://www.millenniumassessment.org/en/About.html>

ⁱⁱⁱ *Minesing Wetlands – One of the largest wetlands in Ontario*, <http://www.natureconservancy.ca/en/where-we-work/ontario/our-work/minesing-wetlands.html#.Vi9tY2eFOM8>

^{iv} *Giant Hogweed*, <http://www.invadingspecies.com/invaders/plants-terrestrial/giant-hogweed/>