

For Immediate Release

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Province Urged to Protect Carbon Stores in Intact Forests

Greenhouse gas targets are only part of the solution

Toronto –A leading conservation group urges the province to protect carbon stores and biodiversity in addition to setting targets for reducing greenhouse gas emissions. “The public does not realize that there is so much carbon stored in our natural wild forests,” says Janet Sumner, Executive Director, CPAWS Wildlands League. “If we were to foolishly convert these carbon rich forests and peatlands into industrial developments, then we would undo our emission reductions,” Ms. Sumner adds.

Yesterday, the province announced its intentions to achieve aggressive emissions reductions. In response, CPAWS Wildlands League urges the province to address two outstanding areas that are part of an effective approach to reducing the dangerous effects of climate change:

- Securing our current carbon stores. The province must safeguard the current carbon stores residing in terrestrial ecosystems such as the Boreal Forest. Carbon rich forests and peatlands are also home to Woodland Caribou and Polar Bear. So protecting these forests would also have additional biodiversity benefits; and,
- Protecting intact ecosystems so they may help shield us from global warming. Not only do natural wild forests store more carbon than managed ones, but they also represent the timeliest and most cost effective approach to keeping carbon stored.

“This government has finally announced aggressive greenhouse gas emission targets,” adds Ms. Sumner, “we expect their next logical move will be to secure the carbon stores.”

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About CPAWS Wildlands League (www.wildlandsleague.org): Wildlands League is a conservation group dedicated to the protection of wilderness in Ontario.



Backgrounder

A Comprehensive Climate Change Response

Emissions Reduction, Biodiversity protection and Safeguarding our Carbon Stores

In the response to climate change, the Ontario government since 2003 has reduced coal plant emissions by one-third. In addition, they have enhanced biodiversity through the protection of 1.8 million acres with the Greenbelt Plan, ensured the ecological integrity of all Parks and Conservation Areas with new legislation and provided for habitat protection in a new Endangered Species Act.

The most effective response to climate change is comprehensive and addresses three elements:

Achieve aggressive emissions reductions from heavy industry, the transportation and other sectors in order to meet the ecological need to stabilize greenhouse gas concentrations in the atmosphere.

Secure our current carbon stores, both terrestrial and marine. Safeguard the current carbon stores residing in terrestrial ecosystems such as the Boreal Forest and in marine ecosystems.

Protect intact ecosystems so they may shield us from global warming. Intact ecosystems will help buffer the impacts from climate change, including drought, desertification, flooding, etc...

With yesterday's announcement and the broad package of biodiversity announcements over the last three years this government has begun to address two of the required elements in an effective climate change response strategy. The remaining issue is to safeguard our carbon stores, specifically in the Boreal Forest and to protect intact ecosystems.

The Boreal Forest ecosystem carbon facts:



Boreal forests are the world's largest terrestrial carbon storehouse, even greater than the tropical rainforests.¹ They hold an estimated 23% of the Earth's land-based carbon in their trees and soils.²

Ontario peat lands cover over 27 million hectares. There are 1, 274 tonnes³ of carbon stored in every hectare of peat land.

The intact Boreal Forest covers approximately 17 million hectares and stores on average 177 tonnes⁴ of carbon per hectare. Ten-twelve million hectares are in the unallocated area and approximately 5-7 million hectares are in the area of the undertaking and already allocated to logging companies.

It is estimated that more than 200,000 hectares of Ontario's public forests are logged each year - an area more than three times the size of the entire City of Toronto. By removing the vast amounts of carbon stored in the trees and soils, scientific estimates suggest that these logging and associated disturbance activities release the equivalent of 15 MT of CO₂ each year. Converting an intact forest into a managed forest for logging loses up to 25 per cent of the carbon in that forest.

Converting peatlands into an industrial development such as mining will effectively convert almost all of the carbon embodied in the peat into carbon dioxide or methane emissions, both greenhouse gases. For example, the Victor Diamond Mine may dewater an area larger than 260,000 square kilometers resulting in a loss of over 3 billion tonnes⁵ of carbon stored in the peat. The dried out peat will release almost 12 billion tonnes of carbon dioxide as it degrades over time.

¹ IPCC, *Land Use, Land Use Change and Forestry* (2000), Table 1-1

² Ibid, p. 31. Approximately 80% of the boreal's carbon is stored in its soils, with approximately 20% in the trees.

³ Gorham, E. 1991. "Northern Peatlands: Role in the Carbon Cycle and Probable Responses to Climatic Warming." *Ecological Applications*. 1:182-195.(based on a mean depth of 2.2 m, mean bulk density of 112,000 g/m³, and carbon content of 0.517)

⁴ Stephen J. Colombo, William C. Parker, Nancy Luckai, Qinglai Dang and Tiebo Cai, *Climate Change Research Report CRR-03, The Effects of Forest Management on Carbon Storage in Ontario's Forests*, page 13

⁵ Based on an ecological footprint of 260,000ha (four times the size of TO) and 1274 tonnes/ha of carbon Using Gorham 1991, the DeBeers Victor Diamond Mine Project may will liquidate 331,240,000 tonnes of carbon or 3.7 times that in CO₂.

Additionally, Ontario's peatlands sequester or capture carbon at a rate of 0.273 tonnes carbon/hectare/year⁶ if left undisturbed.

Effective ways to secure our terrestrial carbon assets in the Boreal Forest include:

1. Protect the remaining intact Boreal forests left in the allocated area of the undertaking. This could result in a cost-effective emission reduction of 5-7 MT of CO₂ each year.

The carbon value of this new reserve could be shared and available for economic benefit by First Nations as part of the emerging carbon trading market in Ontario.

2. Incorporate a *carbon accounting framework* into all resource development decisions. This is an essential component of land use planning before development that is needed in the Northern Boreal Forest where large scale forest loss and peatland decimation has not yet occurred. These lands are still vast carbon stores and if not stewarded adequately with a view to carbon management will result in a carbon debt for Ontario.

Ontario will advance comprehensive northern land use planning, and include carbon retention as an objective. Species need interconnected habitats (also called "connectivity") to adapt to the effects of climate change. As part of the land use planning process baseline carbon assessments could be completed for planning areas under consideration. The carbon footprint for all resource development considerations would be established along with the impacts from any mitigating measures; and then each resource decision weighed for the potential to produce economic gain in a traditional industrial market and the emerging carbon markets and measured against the potential harm in adding to Ontario's carbon debt or storage. First Nations would share and direct the carbon credits developed through land use planning.

3. Develop markets for forest carbon that will create an *incentive to increase the amount of carbon stored in forests* both in the intact allocated forests in the allocated area of the undertaking and in the unallocated lands in the Northern Boreal Forests. Increased forest protection of intact ecosystems, forestry practices such as fewer (and smaller) roads, and

⁶ Kurz, W.A., M.J. Apps, T.M. Webb and P.J. McNamee, 1992. *The carbon budget of the Canadian forest sector: Phase I*. Forestry Canada.



longer rotation periods all will generate increased carbon storage and qualify for incentives.

In partnership with Northeastern jurisdictions, develop a mechanism to trade carbon credits generated by forest conservation and sustainable forest management projects. The forest carbon credits would be credible and have a high degree of rigor scientifically. Taking caution to account for leakage and additionality, the project scope will cover the intact and managed regions of the boreal forest ecosystems. The forest credits and rules for trading will add value and not detract from the broader emission reductions in the carbon trading systems to be developed. The accepted rules and criteria will be developed as part of a consultation process and phased-in over time beginning with a) purchasing offsets credits in pre-market phase while b) supporting development and inclusion of forests in market trading mechanism(s).