## International Boreal Conservation Science Panel

## January 12, 2015

## Dear Premier Wynne,

We are pleased to hear the governments of Quebec and Ontario have taken a more global role in climate change initiatives through the formation of a sub-national working group at the meetings of the United Nations Framework Convention on Climate Change in Lima, Peru.

As you are well aware, the boreal forest and subarctic regions of Quebec and Ontario are critically important in the global climate change discussion not only because of their vast stores of organic carbon, but also because they provide one of the world's last, large intact refuges for animals and plants impacted by climate change and other stressors.

The boreal region of Canada is one of the most carbon rich in the world, holding more than twice as much carbon per unit area in its soils, peat, and forests than tropical forests. The boreal forest regions within Quebec and Ontario hold at least 80 billion tonnes of carbon in soils, peat, and forests-- equivalent to more than 500 years of Canada's annual carbon emissions from the burning of fossil fuels.

Canada's boreal forest region contains within it approximately 25 percent of the world's still-intact primary forest. Quebec and Ontario harbor more than a third of Canada's globally significant primary forest, including some of the world's largest remaining unfragmented habitat blocks. This intact, primary boreal forest, wetlands, and aquatic habitats – covering more than 1.5 million km2 - are a world treasure supporting some of the last healthy populations of boreal woodland caribou, wolverines, and the southernmost populations of polar bears anywhere on the globe.

The boreal forest regions of Quebec and Ontario are also critical bird breeding grounds supporting bird populations numbering in the hundreds of millions with at least 250 species that occur regularly.

Large-scale industrial development including commercial forestry, mining, oil and gas production and hydropower installations and the resulting supporting infrastructure can impose major changes to the landscapes of the boreal forest region. These changes can include disruptions of hydrological levels, flows, and cycles any of which can have profound implications for releasing organic carbon stored in peat and soils, and releasing highly impactful greenhouse gases, especially methane. Industrial development is also causing changes that increase permafrost thaw in some areas, again allowing the release of carbon stores that have been in place for thousands of years and that will greatly accelerate global climate change impacts. In fact, about one third of the anthropogenic CO2 in the atmosphere today and approximately 10% of present-day annual greenhouse gas emissions are due to land-use changes. Maintaining as much of this boreal high-carbon density landscape free of the footprint of industrial development will be a key carbon stewardship strategy that can be employed across Quebec and Ontario as your governments work within a sub-national framework to show progress on climate change initiatives. The effects of climate change to the world's biota are, sadly, already well underway. Thousands of organisms are moving northward, retreating from hotter and harsher conditions occurring because of the increase in global temperature – a phenomenon well documented in hundreds of studies.

In addition, it is clear that maintaining large, widespread and continuous populations of wildlife and plants will be absolutely critical to ensure resilience to climate change impacts and provide assurances of the highest probability of survival for the greatest number of species. One of the most important global strategies for allowing species to adapt and survive climate change impacts is by maintaining the last remaining blocks of intact, primary forest worldwide. Boreal forest regions are particularly important because they are the last reservoirs of habitat for species forced northward by intensely warm and hostile ecological conditions in temperate regions of the globe.

For these reasons, we urge you to make it a priority within your climate change policies to ensure the maintenance and protection of at least 50 percent of the northern regions of Quebec and Ontario from all forms of industrial development. In areas open to industrial uses, climate change policies should insist on world-leading responsible development practices that minimize loss of carbon to the atmosphere and that have the least possible impact on biodiversity. Regional land-use planning that takes into account cumulative development impacts, led by Indigenous communities following the principles of free, prior, and informed consent, should be the hallmark of any world-leading climate change policy. Industrial land-uses should not precede the development of community-led land-use plans that allow conservation areas to be set aside as important carbon reservoirs and for maintenance of biodiversity.

The Governments of Quebec and Ontario have shown great leadership in accelerating solutions to climate change on the global stage through their involvement in establishing a new sub-national working group through the United Nations Framework Convention on Climate Change. We applaud those efforts and strongly urge the adoption of stewardship strategies that ensure the vast carbon pools of the boreal forest region remain in place and that the boreal forest continues to serve as a refuge for the world's plants and animals trying to adapt to climate change. We stand ready to support and advise you as you move forward with these critical policy solutions.

Sincerely,

**International Boreal Conservation Science Panel** 

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cc: Andrew Bevan, Principal Secretary to the Premier Hon. Glen Murray, Minister of the Environment and Climate Change Hon. Bill Mauro, Minister of Natural Resources and Forestry