

Resolution on oil sands mining in wetlands
put forward by:
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- Whereas**, wetland scientists are committed to objective scientific data and to science-based decision-making for the long term sustainability of both humans and our natural surroundings;
- Whereas**, wetlands of the boreal forest, especially peatlands, provide valuable and irreplaceable ecological services, including the provision of significant global carbon storage;
- Whereas**, Canadian boreal forests and wetlands are in the North American flyway and provide a significant fraction of breeding habitat for migratory birds;
- Whereas**, Canadian boreal wetlands are being destroyed at an unprecedented scale by open pit mining for oil sands;
- Whereas**, processes to extract bitumen from oil sands result in loss of thousands of hectares of peatlands and a complete change in land cover including creation of open pit toxic waste tailings storage;
- Whereas**, agreements between mine operators and the Alberta government suggest that freshwater boreal peatlands destroyed by open pit mining will be replaced by upland forest, tailings storage lakes, and saline marshes;
- Whereas**, current oil sands operations are permitted to remove the equivalent of the water needs of a city of 3 million people, and that the rate of these removals are expected to increase over the next 50 years;
- Whereas**, there are no wetland compensation policies for peatlands in the oil sands region and reclamation of the mined landscape will not commence for at least 30 years after the initiation of mining activities, such that the boreal forest will be losing substantial wetlands for decades to come;

Therefore be it resolved:

- That** the global scientific community become engaged in supporting and developing the most rigorous science-based assessments to evaluate the full consequences of oil sands extraction on the integrity of boreal wetlands and the ecosystem services they provide;
- That** such assessments include a full and complete carbon balance accounting;
- That** such assessments consider and quantify the ecosystem services permanently lost;
- That** such assessments explicitly address differing time scales of benefits to economies and costs to ecosystem services at local to global scales;
- That** such assessments explicitly address the cumulative impacts of oil sands extraction, both within Canada and on boreal landscapes world-wide; and,
- That** progressive reclamation of boreal landscapes and associated wetlands be instituted immediately, even as mining activities are ongoing.

Comparative Oil Reserves (billions of barrels)

Source: *Oil & Gas Journal*, 2007

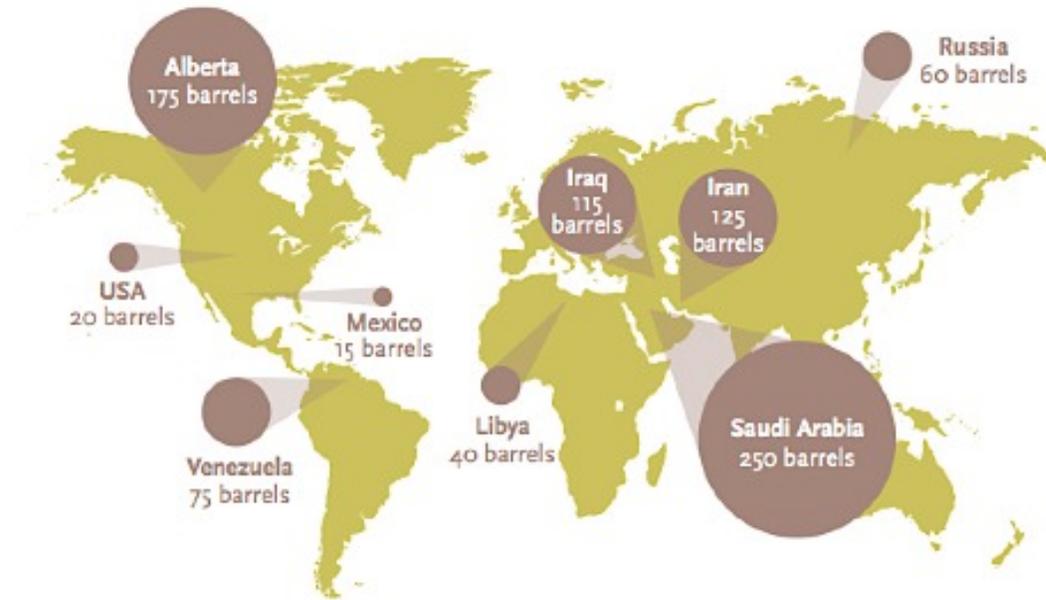


Figure 1 Alberta address oil sands' gigantic footprint (John Lorinc 2009)



Figure 2 Destinations of Alberta's oil sands to North American markets (Canadian Association of Petroleum Producers 2012)

Introduced by Scott Bridgham and Patrick Megonigal
INTECOL Resolution on Wetlands and Climate Change

Whereas, climate is changing due to human activities;

Whereas, climate change is altering temperature, hydrologic cycles, and sea level which are fundamental influences on wetland processes and define their very existence;

Whereas, the importance of wetlands is widely recognized for the goods and services they provide to humans and as hotspots of global biodiversity;

Whereas, many people around the world depend on wetlands for subsistence;

Whereas, wetlands are a major global carbon reservoir and are significant sources of greenhouse gases;

Whereas, human activities continue to drastically impact wetland carbon cycles, greenhouse gas emissions, ecosystem goods and services, subsistence values, and biodiversity.

Be it resolved by the attendees of the 9th INTECOL International Wetlands Conference, Society of Wetland Scientists Annual Meeting, and the Greater Everglades Ecosystem Restoration Conference that:

- 1) significantly more resources and research should be devoted to adaptation planning in wetlands to preserve their societal benefits;
- 2) significantly more resources and research should be devoted to adaptation planning to preserve wetland biodiversity and habitat quality for wildlife and fisheries;
- 3) wetlands should be preserved to maintain their carbon pools, with particular attention given to carbon-rich systems including northern peatlands, tropical peatlands, mangroves, salt marshes, and seagrass beds;
- 4) drained carbon-rich wetlands should be restored to diminish further loss of their carbon stores;
- 5) further research is needed on the effects of climate change on the functioning of wetlands;
- 6) further research is needed on the feedbacks of natural, disturbed, and managed wetlands on climate.

INTECOL Resolution on Sustainable Use and Protection of Brazilian Wetlands
Wolfgang Junk, Paulo Teixeira de Souza Jr., Catia Nunes da Cunha, Maria Teresa Fernandez
Piedade, Florian Wittmann, Jochen Schöngart, Angelo Antonio Agostinho, Claudia Costa
Bonecker, Horácio Ferreira Júlio Junior

Whereas, wetlands cover about 20% of Brazil;

Whereas, climate change is altering temperature, hydrologic cycles, and sea level, which are fundamental influences on wetland processes, and may even define their existence;

Whereas, the importance of wetlands is widely recognized for the goods and services they provide to humans, and as hotspots of global biodiversity;

Whereas, many people in Brazil depend on wetlands for subsistence and water supply;

Whereas, Brazilian agriculture and industrial development is quickly expanding, and directly and indirectly affecting large areas of formerly intact wetlands;

Be it resolved by the attendees of the 9th INTECOL International Wetlands Conference, the Society of Wetlands Scientists Annual Meeting, and the Greater Everglades Ecosystem Restoration Conference that:

- 1) wetlands should be included as specific ecosystems in the Brazilian laws and regulations;
- 2) projects should be designed and supported to include wetland inventories and classification;
- 3) wetlands should be given particular attention in the ongoing discussions about ecosystem management and protection.

Statement of professional involvements
Submitted by

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Whereas, wetlands in all their diversity are threatened throughout the world and face many common threats;

Whereas, there are concerned scientists and local communities throughout the world who lack some of the necessary knowledge or tools to address these threats;

Whereas, there is growing knowledge and experience to address these threats among developing and developed countries to secure the ecological functions and services of wetlands;

Be it resolved, that,

The attendees of this meeting will continue to support international exchange of wetland scientists and will continue to encourage governments and other capable agencies to facilitate the conservation and restoration of wetlands founded on best science and practice.