

# Environmental Brief

September 2011

## All Party Green Agenda Newfoundland & Labrador 2011 Provincial Election

Newfoundland and Labrador possesses a wealth of natural and environmental resources. This includes important wildlife habitat, forest, freshwater and marine ecosystems. With such wealth comes a duty to protect and enhance the natural environment. The 2011 provincial election is a watershed election for the province.

After several years of prosperity which has seen significant revenues from non-

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renewable offshore resources invested to modernize public infrastructure such as hospitals, roads and schools among other things, the opportunity exists for the next government to chart an environmentally friendly and sustainable future for all Newfoundlanders and Labradorians. This bold innovative environmental future is to focus on

- embracing alternative energy resources;
- protecting our peatlands resources;
- investing in leading edge waste management practices;
- reducing the environmental impacts of the oil industry;
- moving to less carbon intensive practices;
- repositioning the forestry sector to recognize its diversity and to ensure its environmental sustainability; and,
- working to create a food production system that is less dependent on imports.

It is to these issues that this environmental brief seeks commitment from all political parties in the 2011 provincial election.

The Environmental Policy Institute is dedicated to addressing environmental policy issues in Newfoundland and Labrador by (1) facilitating debate; (2) conducting, facilitating and disseminating research; and, (3) enhancing provincial policy capacity on critical environmental policy issues.



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## Forestry

Forests are vital to the livelihoods of many residents of Newfoundland and Labrador. The forest sector has long provided commercial employment in mills and harvesting, as well as supplemental income in the form of domestic fuelwood harvests and sawlogs for construction. Forests are also key habitat for many important wildlife species that contribute to local diets, and they are the backdrop of many tourist activities. These benefits have flowed disproportionately to rural residents, who may have few economic opportunities.

Commercially, the sector is facing unprecedented challenges. Two of the province's three pulp and paper mills have closed since 2005, and the remaining mill, Corner Brook Pulp and Paper (CBPP), has downsized. The province still has a healthy sawmill sector, but it is currently dependent on a pulp and paper sector in order to sell small-diameter material. Despite these challenges, there are many promising developments. CBPP has applied for the most stringent environmental certification within forestry, and commercial opportunities are being developed in ventures such as a fledgling pellet industry and the possible commercialization of domestic fuelwood.

Other non-timber benefits have become more and more important to people in the province and forest management has become very complex, even contentious, as a diverse array of stakeholders has stepped forward to be heard. An increasing number of voices in forest planning are calling for forest management for wildlife habitat

protection, aesthetic and wilderness values, old-growth forests, tourism and recreation, non-timber forest products such as mushrooms and berries, and the speculative carbon market. Forest policies within the province have shifted to acknowledge these complexities, especially with the 2003 Sustainable Forest Management Plan, which states that: "forest managers must take a leadership role in sustainable forest management by finding a balance between the ecological, economic and social values that the public defines."

In order to face these challenges and seize possible opportunities, the next government needs to:

- #1. Prioritize and increase funding for forest research.**
- #2. Develop more integrated land use planning in order to clarify the role of forests within the province.**
- #3. Engage the public in meaningful dialogue** about the future of forestry in the province through community-level public forums and visioning exercises.
- #4. Assess the economic input of various forestry sectors**, including bioenergy, non-timber forest products, and tourism.
- #5. Work with partners** at regional and federal levels.

## Climate Change

The international scientific community considers climate change to be one of the greatest threats of our time and advises the global community to reduce carbon emissions steeply and immediately to limit the very worst consequences of this problem. Newfoundland and Labrador is already experiencing climate change impacts and the province has a responsibility to act given its fossil fuel industry.

The provincial government has created plans to address this issue, most notably “Climate Change Action Plan 2005” and the recently released “Charting Our Course: Climate Change Action Plan 2011” and “Moving Forward: Energy Efficiency Action Plan 2011.” Implementation of these plans is now required, particularly in light of recent monitoring results by the Atlantic Canadian Sustainable Energy Coalition which indicates the province has been unable to meet targets established through the North Eastern Governors and Eastern Canadian Premiers (NEG-ECP) group.

Political parties in the upcoming election can show leadership on this important issue by committing to the following policies:

**#1. Set firm emissions reduction targets** that respect Canada’s international commitments and the scientific consensus (the Intergovernmental Panel on Climate Change recommends emissions reductions of 25% to 40% below 1990 levels by 2020, and 80% to 95% below 1990 levels by 2050).

**#2. Put a fair price on carbon emissions.** Provide incentives and market signals to encourage emission reductions, particularly in the highest emitting sectors (large industry, transportation, and power generation). As regional partners develop a national or regional cap and trade system, implement a carbon tax.

**#3. Facilitate the transition to a renewable energy economy** by investing in the development of a full range of sustainable, environmental energy production. Introduce feed-in tariffs to support a renewable electricity system.

**#4. Reduce energy demand** by requiring high efficiency standards for all new buildings, industries, and vehicles and by investing in public and alternative transit.

## Oil Industry

It is without question that revenues from NL’s oil industry have driven the province’s recent economic boom. However, the industry also presents serious

environmental impacts and risks to a globally valuable marine ecosystem. These range from the obvious concerns about spills and blowouts, climate change causing

emissions, and air pollution, to the less acknowledged issues of species risks due to attraction to platforms by waste disposal and lighting, sediment contamination, and the impacts of “routine” discharges of hydrocarbons and other waste.

One over-arching policy action for political parties to take to show leadership on this issue is to work with federal partners to establish an independent, well-resourced Environmental Authority. (This would parallel the proposed Safety Authority, currently under review, recommended by Honourable Robert Wells, Commissioner of the above-noted inquiry). The Environmental Authority would be guided by an advisory board including members of the public, scientists and persons knowledgeable about policy who are independent from the profit pressures of industry and from the revenue pressures of government.

The Environmental Authority could then take a lead role in redressing environmental policy in NL’s oil industry by implementing the policy changes below. These recommendations are also relevant to the growing onshore oil and gas industry in this province.

**#1. Commit to full transparency** on the environmental impacts of this industry. For example, greater access to information is needed on the following: the results of compliance audits (such as on Waste Treatment Guidelines); post-spill impact research; and ongoing results of Environmental Effects Monitoring

programs.

**#2. Strengthen research programs**, particularly the Environmental Effects Monitoring (EEM) program, to track ongoing and cumulative effects of offshore oil activities. Independent scientific experts are needed to evaluate the environmental assessments conducted by consultants on behalf of the companies, verify impact predictions made in environmental assessments, document the impacts of incidents on species, and lead EEM design and evaluations. There is also a need for independent, trained, dedicated monitors at the extraction sites (on the platforms).

**#3. Plan for ecological protection.** The process for leasing lands for oil development needs to be revisited to ensure broader involvement of the public and scientific community in the selection of development parcels. Development sites need to be selected based on regional, long-term planning that prioritizes environmental protection.

**#4. Address policy gaps.** A complete review is needed of environmental policies guiding oil development. Such a review would, for example, strengthen waste disposal regulations to ensure there are clear targets rather than guidelines, regulate carbon emissions from offshore sites to ensure declining emissions over time, and ensure that fines and production suspensions are effective disincentives to spill incidents in this high-profit industry.

## Tire Recycling

The disposal of the province's yearly 350,000 used tires is an important and challenging environmental issue. The incineration (e.g., used as a fuel source) and landfilling of scrap tires not only contravenes the province's *Waste Management Plan* but poses serious health and practical problems. The human health effects of incineration (e.g., tire derived fuels) alone are well verified, particularly for emissions of zinc, dioxins and furans, and sulfur dioxide making such an option undesirable. Similarly undesirable is the stockpiling of scrap tires due to fire and associated health risks. The current practice of shipping the province's tires elsewhere for incineration does little to address the problem. Instead, it moves the problem to another jurisdiction while leaving the province's citizens susceptible to pollutants via air currents.

Many other uses for scrap tires exist that are not only more environmentally friendly but that also pose less of a public health risk. Research has long identified the positive and viable use of tires in road and highway construction, landfill construction, building materials, and reuse, along with the production of various consumer products. The need exists to explore these options in the Newfoundland and Labrador context given their enhanced economic, public and environmental health benefits.

The next provincial government can show leadership on the issue by:

**#1. Developing standards for the use of shredded tires in road construction.** This can be accomplished by mandating a set percentage of tire chips be used for such construction. Tire shreds are an excellent fill material that improves the stability of embankments, are highly permeable, compactable and pose low horizontal stresses which make them excellent for use behind retaining walls, and have proven to be cost effective in such uses.

**#2. Mandating the use of shredded tires in landfills** as part of leachate collection layers, foundation layers, drainage layer in landfill cap and as an alternate daily cover. Such use is not only environmentally friendly but could utilize all of the province's yearly collection of scrap tires.

**#3. Conduct field trials on the use of scrap tires in other building materials.** These include the use of tire chips as an aggregate substitute in portland-cement concrete mixes (rubberized concrete) to increase the flexibility and longevity of the concrete for example in sidewalks. Tire shreds can be used as gravel and wood chip substitutes.

**#4. Develop a research and technology program that investigates the use of reconstituted scrap tires in consumer products** such as for moldings, floor, wall and ceiling applications.

**#5. Develop recycling options that focus on the reuse of scrap tires** such as for slope stabilization, playground equipment and in docking facilities as boat fenders.

## Peatlands

Newfoundland and Labrador is blessed with an abundance of peatlands, a type of wetland ecosystem. Protecting NL's peatlands is an essential policy priority in preserving key habitat and limiting global climate change. Canada is the world's largest peat carbon storage location (estimated 155 billion tonnes) with NL having significant peatland resources. Peatlands store about two times as much carbon in the form of decaying ancient vegetation as an equivalent area of forest. The increased development and destruction of peatlands will dramatically increase the province's carbon emissions.

At the same time, the potential development of NL's peatlands as an alternative energy source poses serious environmental challenges. Given the high amount of carbon dioxide emission per unit of energy, the use of peat as a fuel source would likely be worse than the continued use of Bunker C oil at Holyrood.

Newfoundland and Labrador needs to develop a policy framework for peatlands centred on their preservation. Steps can be taken in the management of the province's water resources to ensure bogs remain waterlogged to avoid the release of carbon dioxide. Likewise, fire control measures are required to prevent peatland burning. Measures should be taken to preserve peatlands from mining, ploughing, housing, and other developments. Finally, research should be conducted to determine the effects (if any) of cranberry (and other

berry) production on peatlands.

More broadly, the next government needs to:

**#1. Make the maintenance of ecosystem carbon storage and sequestration stated objectives of land-use planning.**

**#2. Develop and adopt a wetland protection policy.** The direct recognition of peatlands as carbon storage systems in ecosystem functions is required.

**#3. Create an interdepartmental working group on wetlands.** Wetlands issues cut across several government departments and an interdepartmental working group on wetlands is required to address wetland objectives such as carbon storage and other environmental benefits.

**#4. Develop a targeted research program to address knowledge gaps.** Current impacts of human land-use on NL peatland carbon storage and fluxes cannot be quantified, and emissions factors for different types of land use are mostly untested. Filling these knowledge gaps is required to support policy development and assess the effectiveness of future management strategies.

**#5. Establish a monitoring system** to assess the effects of existing developments (e.g., agricultural, mining, urban) on peatlands ecosystems.

## Food Security

Food security is a pressing problem in Newfoundland and Labrador due to the limited capacity in the province to grow food and the significant dependence on imported foods. Local food production is already low and this problem is worsening as farmers leave the industry and are not replaced by the next generation.

The provincial government has made great progress on a number of food security issues in the province, most notably the establishment of an Interdepartmental Working Group on Food Security. Other important achievements include increased support for new entrants and the creation of a Poverty Reduction Strategy and a Wellness Plan that address social aspects of food security. However, there remain a number of important policy gaps, particularly in terms of addressing some of the ecological aspects of our current food system.

Political parties in the upcoming election can show leadership on this important issue by committing to the following policies.

**#1. Create and implement a comprehensive provincial food strategy in**

consultation with citizens across the province that will address the health and wellbeing of citizens as well as ecological sustainability.

**#2. Develop a plan to support and build on ecologically sound food production** including organic, agro-ecological and traditional/cultural growing methods.

**#3. Ensure major investments in the agriculture industry are focused on meeting domestic consumption needs** rather than export development.

**#4. Identify food processing and non-timber forest products as priority areas for small business development.**

**#5. Continue and expand policies for new entrants**, such as the new Legal Land Survey Program, that reduces the financial and educational barriers to new entrants in agriculture.

**#6. Support research** into the benefits of agroforestry to capture economic and environmental benefits from combining agricultural and forest land uses.

## Alternative Energy

The alternative energy potential of Newfoundland and Labrador is vast and unrealized in the energy continuum. Although the Lower Churchill hydro-electric project will assist in reducing the necessity for the Holyrood generating station and its

polluting effects, alternative energy sources such as solar, wind and tidal power generation have been marginalized in the NL power generation warehouse. For example, little is offered for the



development of these alternative sources of energy in the province's *Energy Plan*.

The significance of the province's alternative energy potential should not be underestimated. For example, in addition to our vast wind power resource, our solar power potential exceeds that of some European countries (e.g., Germany), which have major solar power generating initiatives that support power generation and a secure power grid infrastructure.

We have the opportunity to reduce the polluting effects of oil-produced power and the devastating effects of hydro dams on land and aquatic life, develop a secure grid infrastructure, and support green industrialization; yet action remains stunted. The hazards of shipping oil and its use in generators in remote Labrador communities could be subsidized by solar power generating stations that are community operated. Other less intrusive sources of power generation exist and need to be recognized and developed to capitalize on their environmental and

economic benefits.

Commitment from the next provincial government is needed to:

**#1. Commit to generating at least 95% of electricity from renewable sources for the province as a whole with at least 10% being from alternative energy sources (e.g., solar, wind).**

**#2. Develop a research agenda to support studies** on small scale, renewable energy projects in this province.

**#3. Provide incentives for investment** to explore and develop solar, wind, geothermal and biomass energy. This must also include environmental safeguards for new developments such as adequate land-use planning, regulations, and enforcement to ensure new energy sources have a low environmental impact across their life cycle.

**#4. Include energy efficiency and renewable energy requirements into the construction, transportation and industrial sectors.**

### For more information...see:

Carter, A. V. and G. S. Fraser. 2011. "A Framework for Effective Environmental Regulation in Newfoundland and Labrador's Offshore Oil and Gas Sector: Applying Lessons from the Offshore Helicopter Safety Inquiry." Submission to the Government of Newfoundland and Labrador, the Government of Canada, the Canada-Newfoundland and Labrador Offshore Petroleum Board, and the Commissioner of the Inquiry into Matters Respecting Helicopter Passenger Safety for Workers in the Newfoundland and Labrador Offshore Area.

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Joosten, H. 2010. The global peatlands CO<sub>2</sub> picture. Peatland status and drainage related emissions in all countries of the world. Retrieved from Wetlands International [www.wetlands.org](http://www.wetlands.org).