



THE UNDERLYING THREAT: ADDRESSING SUBSURFACE THREATS IN ENVIRONMENT CANADA'S PROTECTED AREAS



This document presents an Executive Summary of Nature Canada's latest report on Environment Canada's protected areas, called *The Underlying Threat*. The full report is available at www.naturecanada.ca/reports.asp

AN EXECUTIVE SUMMARY

THE UNDERLYING THREAT: EXECUTIVE SUMMARY

The purpose of Nature Canada's report, *The Underlying Threat: Addressing Subsurface Threats in Environment Canada's Protected Areas* is to draw attention to, and provide solutions to address, the increasingly important issue of subsurface protection in Environment Canada's protected areas. Simply stated, this means protecting the natural resources below the land surface in the same way as the natural resources – like water, plants, and other wildlife – on the surface. Subsurface land protection is important to the overall ecological integrity of new and existing protected areas.

Covering more than 12 million hectares of conservation lands and waters across Canada, our 54 National Wildlife Areas and 92 Migratory Bird Sanctuaries contribute substantially to



Figure 1 – Environment Canada's protected areas network, with National Wildlife Areas in blue and Migratory Bird Sanctuaries in yellow.

Canada's conservation commitments under international agreements such as the 1917 Migratory Birds Convention and the 1992 Convention on Biological Diversity, and provide extensive areas of critical habitat for a number of listed species at risk. These sites can also contribute to sustaining landscape-scale ecosystem services and safeguarding culturally important landscapes.

Despite their importance to wildlife and humans, alike, Canada's NWA and MBSs are increasingly impacted by a number of stressors, such as harmful public uses, invasive species, pollution, climate change and development in all its forms.

Among these stressors, however, there is an underlying threat: the potential development of oil and gas and/or mineral resources found beneath Environment Canada's protected areas... particularly the existing and proposed sites in Canada's far north. Why? Because unlike National Parks, the boundaries of NWA and MBSs do not effectively extend below the land surface to prevent mining and oil and gas resource development.

While the regulations that protect NWA and MBSs strictly prevent any mining or oil and gas-related activities without a federal permit, it is not clear how well and to what extent permitting can truly protect NWA and MBSs under the existing legal framework.



THE OPPORTUNITY

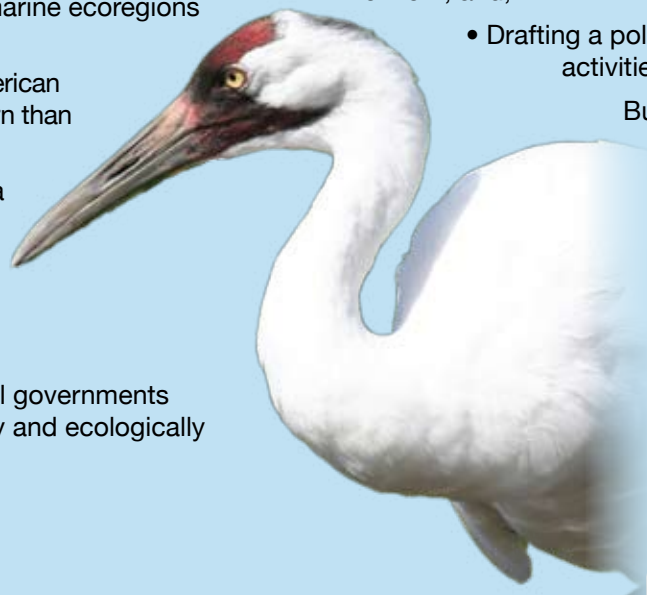
Environment Canada's protected areas network has great, untapped potential to play an even more effective role in wildlife conservation, through stronger protection and through better integration with other protected areas and conservation tools into a broader conservation plan for Canada. Consider the conservation potential of Canada's NWAs and MBSs, given the following:

- They provide "extensive areas of critical habitat" for a number of listed species-at-risk;
- They encompass more of Canada's 9 marine ecoregions than any other marine protected areas;
- They protect habitats for more North American species of common conservation concern than any other protected areas;
- They currently protect a larger total area of Canada's two most threatened ecosystems, grasslands and Carolinian forest/savannah, than do National Parks; and,
- NWAs are a uniquely effective tool to ensure that First Nations and Aboriginal governments can advance the protection of culturally and ecologically important spaces.

Recent initiatives show some of the progress Environment Canada has made in realizing the conservation potential of its protected areas, including:

- Development of a Protected Areas Manual;
- Renewing its strategy for protected areas;
- Establishing new National Wildlife Areas in Nunavut;
- Engaging in the NWT Protected Areas Strategy;
- Revitalizing plans for the Scott Islands marine NWA;
- Updating management plans for at least 10 sites in the network; and,
- Drafting a policy on permitting prohibited activities in protected areas.

But more progress is needed to address the ongoing threats to Canada's NWAs and MBSs.



THE CHALLENGE

While Environment Canada's existing permitting system has strengths in managing threats on the surface lands of these protected areas, the system is not designed to manage the threats posed by – and associated with – subsurface resource exploration and development. Subsurface threats operate at a larger geographic scale, at a broader scale across governmental economic and resource departments, and involve larger political and economic forces. There are also a number of technical, regulatory and legal challenges to managing these threats with existing tools. Subsurface resource development threats are best managed through land use planning in which there is coordinated Government of Canada engagement with other land managers and title-holders.

The current regulatory framework for NAWs provides limited protection against accessing and exploiting subsurface resources – particularly minerals. For example, major natural gas extraction projects can be proposed within NAWs where, even after extensive environmental assessment identifies adverse environmental impacts, a permitting decision is not clear. This is the case at **CFB Suffield NWA**. In other examples, uncoordinated action between government departments regarding subsurface protection can incur legal risks for the federal government and significant uncertainty for all stakeholders. This is demonstrated in the case of the **Edézhíe** candidate NWA in the NWT. We address both of these cases in detail in *The Underlying Threat*.

Subsurface non-renewable resource development in protected areas is a problem because, whether in the exploration, drilling and extraction or decommissioning phase of mineral or oil and gas development, the negative environmental impacts can include:

- Direct and indirect losses of habitat
- Fragmentation of habitat and opening up of remote wilderness areas
- Decreased habitat effectiveness and increased intra- and inter-specific competition
- Surface water and/or groundwater/aquifer contamination
- Interruption of hydrologic regimes
- Subsidence-induced sinking of coastal areas or islands
- Substrate erosion
- Soil/substrate contamination

- Introduction and proliferation of invasive species
- Air pollution
- Marine pollution
- Noise disturbance to wildlife
- Direct wildlife mortality
- Indirect wildlife mortality (through increased human and predator access to habitats, physiological stress, vegetation toxicity, bioaccumulation in food webs, etc.)

Both the surface access required to find and delineate subsurface resources and the actual development of those subsurface resources can impact natural habitats and ecosystems – as well as wildlife. Development of oil and gas reserves can, in particular, be directly and indirectly associated with negative impacts on species at risk, including Greater Sage Grouse, Sprague's Pipit and Woodland Caribou.

Global demand for energy from fossil fuel resources is expected to continue increasing for the next 20 years, with global demand for minerals also growing rapidly. We can therefore expect increasing pressure to be focused on exploring and developing available mineral, metal and petroleum resources. This is not only a threat to proposed NAWs, as shown in figure 2, but also to existing sites where subsurface lands have not been protected.

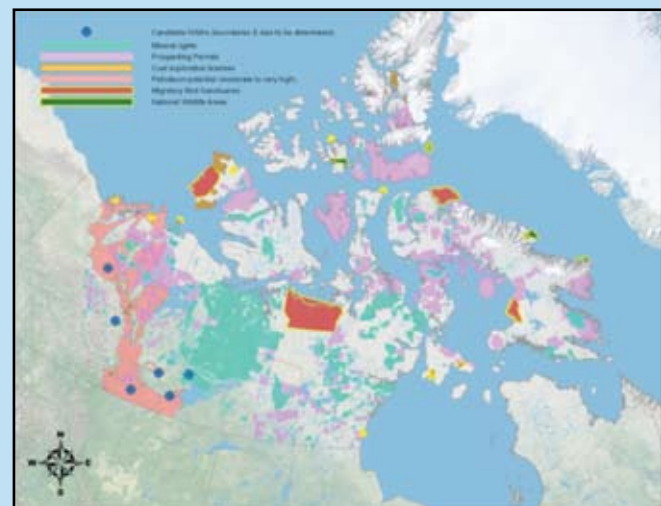


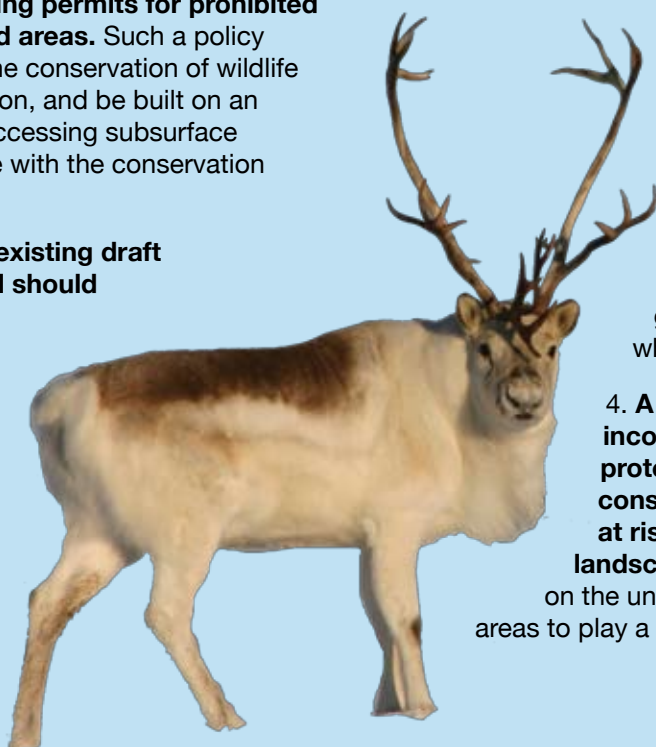
Figure 2 – Overlap of NAWs and MBSs with prospecting permits, existing mineral rights (licenses & claims) and petroleum hydrocarbon potential (Mackenzie Valley only) in the Northwest Territories and Nunavut. See the full report for data sources and citations.

OUR RECOMMENDATIONS

Nature Canada proposes a range of solutions to the challenges and threats we outline in this report. In summary these are:

SHORT TERM POLICY RECOMMENDATIONS

1. **Environment Canada should adopt a clear, up-to-date policy on considering permits for prohibited activities in its protected areas.** Such a policy should clearly prioritise the conservation of wildlife as the central consideration, and be built on an acknowledgement that accessing subsurface resources is incompatible with the conservation of wildlife.
2. **Environment Canada's existing draft Protected Areas Manual should be finalized and adopted as the department's official policy on protected areas.** Protected area managers and stakeholders need consistency and clarity regarding which activities are considered to be compatible or not with the conservation of wildlife within NWAs and MBSs.



3. **The Prime Minister's Office should ensure a concerted Government of Canada approach to establishing all new National Wildlife Areas in the Territories.** This means concurrent permanent surface and subsurface land withdrawals under the Territorial Lands Act for each new NWA at the time it is scheduled under the Wildlife Area Regulations, with the two Orders-in-Council being made together. It also requires interim surface and subsurface land withdrawals for all candidate protected areas to ensure good faith negotiations between the Government of Canada and other parties. The withdrawal of surface and subsurface lands may of course be subject to the transfer of land administration rights by First Nations and/or Aboriginal governments to the federal government, where applicable.
4. **A National Conservation Plan should incorporate Environment Canada's protected areas as keystone areas for the conservation of migratory birds, species at risk, other wildlife, and eco-cultural landscapes.** Such an approach could capitalise on the untapped opportunity for these protected areas to play a larger role for Canada.

LONGER TERM REGULATORY & LEGISLATIVE OPTIONS

5. Limit permissible activities for new NWAs as they are Scheduled under the Wildlife Area Regulations.

The establishment of an NWA requires a description in Schedule 1 of the Wildlife Area Regulations and so an amendment to that regulation is required. At the time of amendment one or more new sections might be added to the regulation specifying activities that are consistent or inconsistent with the conservation of wildlife in the new NWA¹. There is precedent for this in the Wildlife Area Regulations, which lists specific permitting conditions for hunting in the Cap Tourmente NWA. For new NWAs south of 60°, Environment Canada should enter into Memoranda of Understanding with the appropriate provincial governments to ensure that provincially held subsurface resource rights are not developed within NWAs. A precedent for this exists for the Last Mountain Lake NWA in Saskatchewan.

6. Amend the provisions of the Wildlife Area Regulations to add an irrevocable prohibition of industrial activities in all NWAs.

A new section could be added listing “irrevocable prohibitions” which would not be subject to the Minister’s discretionary authority under sections 3(2) or 4 of the Regulations, and therefore could not be permitted under any conditions. In this respect these would be distinct from the “general prohibitions” currently listed in section 3(1). Existing industrial activities at CFB Suffield NWA and other sites could be grandfathered, provided monitoring and impact avoidance measures are included in the management plans. Such measures should ensure that existing industrial activities do not interfere with the conservation of wildlife over time. Again for new NWAs south of 60°, Environment Canada should enter into Memoranda of Understanding with the appropriate provincial governments

to ensure that provincially held subsurface resource rights are not developed within NWAs. Last Mountain Lake NWA provides a precedent for this measure.

7. Amend the Canada Wildlife Act to irrevocably prohibit industrial activities in NWAs.

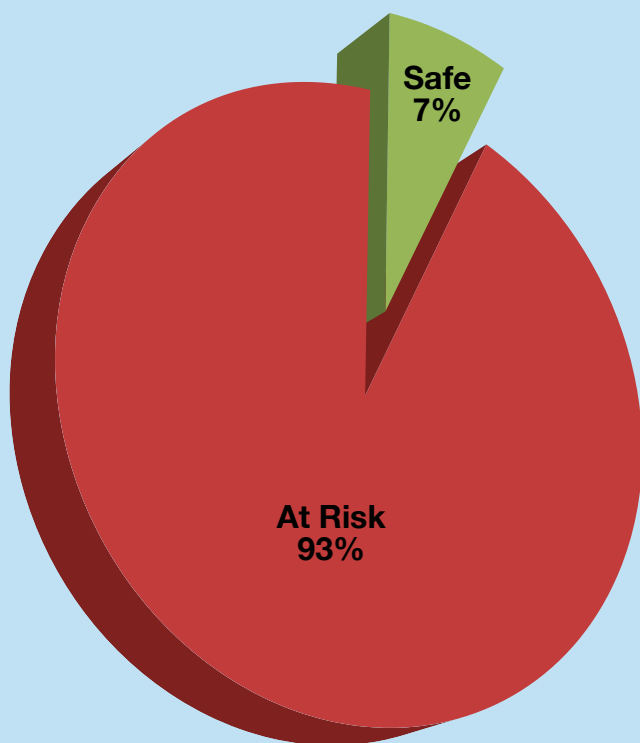
A section listing “irrevocable prohibitions” could be added to the Act. This would very clearly distinguish these from the “general prohibitions” in the Regulations. The discretionary authority of the regulations (sections 3(2) and 4) would not apply to these new irrevocable prohibitions.

Industrial development and natural resource extraction are incompatible with the mandate of Environment Canada’s protected areas. A reliable mechanism is needed to guarantee subsurface land protection in Environment Canada’s protected areas so that they may provide conservation benefits, unimpaired over time. Such a mechanism would create much more certainty for industry and other stakeholders, and for First Nations and Aboriginal organizations trying to balance economic development and conservation opportunities in Canada’s north.

Our recommendations focus on charting a path towards establishing a reliable mechanism to shelter Environment Canada’s protected areas from industrial development. The federal government, First Nations and Aboriginal organizations, NGOs and other stakeholders can work together to develop and implement practical solutions that will enable Canada to fully seize the opportunity presented by Environment Canada’s protected areas.



THREATS FROM SUBSURFACE RESOURCE DEVELOPMENT FOR ENVIRONMENT CANADA'S PROTECTED AREAS
ALL SITES (PROPOSED AND EXISTING)



Type of Threat *
The risk of subsurface resource development is highest if:
Subsurface rights are held by a third-party prior to official designation of a site.
Subsurface lands are not protected and it is unclear who controls them and/or has access to them.
Sites have been proposed but subsurface lands are still open to development.
Sites have subsurface lands that remain open to disposal by the federal government.

** Complete list of risks and associated sites available in full report.*

ABOUT US:

Nature Canada (formerly the Canadian Nature Federation) is the national voice of naturalists in Canada, representing more than 40,000 individual members and supporters in every province and territory. We coordinate the Canadian Nature Network, an alliance of more than 100,000 naturalists in over 360 affiliated local and provincial naturalist clubs from coast to coast. Our mission is to protect and conserve wildlife and habitats in Canada by engaging people and advocating on behalf of nature.

Nature Canada and Bird Studies Canada are Canadian co-partners delivering BirdLife International's Important Bird Areas program in Canada. We aim to identify, monitor and protect a global network of IBAs for the conservation of the world's birds and other biodiversity.

The Underlying Threat is Nature Canada's fourth in a series of reports highlighting the state of Canada's National Wildlife Areas and Migratory Bird Sanctuaries. Our reports include *Conserving Wildlife on a Shoestring Budget* (2002), *Wildlife In Crisis* (2004), and *Protecting Canada's Wild Species and Spaces* (2006). These reports and other Nature Canada publications are available electronically on our website: www.naturecanada.ca

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