

A Report from the Canadian Wildlife Directors Committee Large Landscape Conservation Workshop

May 3

2011

Conservation of Canada's biodiversity and wildlife is at a crossroads. Traditional approaches are poorly positioned to meet the challenges of the future, and much thinking is being directed at large landscape conservation as a viable and necessary alternative. Large landscape conservation is defined as a variety of approaches for land and water conservation that are multi-jurisdictional, multi-purpose, and multi-stakeholder and to seek to address environmental values at the landscape scale.

CWDC Spring
Meeting

Purpose:

During the April 2010 climate change workshop held by the Canadian Wildlife Directors Committee (CWDC) in Yellowknife, NWT, a consensus formed that traditional approaches are poorly positioned to meet the challenges of conservation of biodiversity in the future. With this in mind, the CWDC planned a workshop focused on large landscape conservation for the following spring. This report documents the presentations, discussions and conclusions of the Large Landscape Conservation Workshop held in Charlottetown, PEI May 3, 2011.

Objective and Format:

Prior to the workshop, all jurisdictions and agencies in the CWDC were given an opportunity via a common survey template to provide information about their efforts and programs aimed at large landscape conservation, along with their views about remaining issues and gaps. This was designed to give workshop participants a solid understanding of the status of government-delivered large landscape conservation in Canada; these submissions are posted on the CWDC website (<http://199.212.18.114/cdcf-cwdc/default.asp?lang=En&n=EFE5C68A-1>). The individual jurisdiction/agency submissions are summarized in Annex 1 to this report.

The workshop proper was framed around two themes, the first being a series of presentations from different but related conservation initiatives (including a presentation focused on coastal and marine ecosystem conservation), and the second being a range of provincial and territorial examples of landscape conservation approaches. It concluded with a breakout session designed to assist the CWDC in definition of its role in this emerging conservation approach.

Why Do Large Landscape Conservation?

Shaping the Post-2010 Biodiversity Agenda: Innovative Approaches Identified Through the Ecosystem Status and Trends Report (2010)

Sherman Boates, Manager, Wildlife Resources, Department of Natural Resources, Nova Scotia and Patricia Hayes, Ecosystems and Biodiversity Priorities, Environment Canada

Sherman Boates set the stage for the workshop by overviewing the recently released “*Ecosystem Status and Trends Report 2010*” (ESTR), sharing his perspectives on how the ESTR committee achieved success in this significant national endeavour. These successes were directly applicable to the challenge of how to effect conservation of landscapes of large geographical extent. For example, the ESTR program confirmed that the ecozone approach is superior to the jurisdictional approach as it offered participants the opportunity to



Terrestrial and Marine Ecozones of Canada. Source: ESTR 2010.

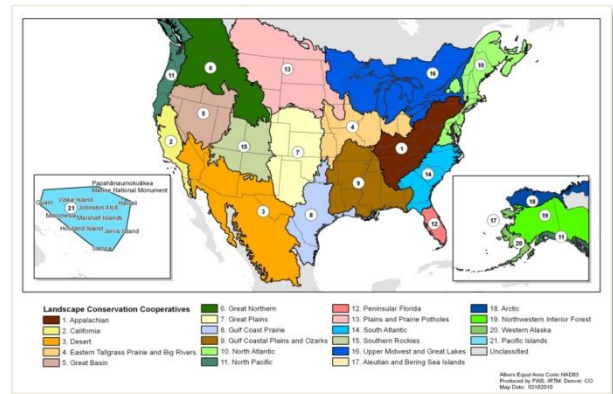
contribute outside their traditional roles. The engagement of a wide variety of experts, a strong science foundation, and a huge volunteer component were critical to the final product. Mr Boates noted aspects of importance to conservation of biodiversity such as ecosystem connectivity, large protected areas, private stewardship, identification of flagship species and response to the impact of climate change. He posed three questions to the group: “What is large? What is land? and What is the appropriate scale?” He proposed that the “land” was simply an organizer and that the “approach” (in this case the ecosystem approach to large landscape conservation) is the important consideration.

Landscape Conservation Cooperatives in the U.S.

Andrew Milliken, Coordinator, North Atlantic LCC, US Fish and Wildlife Service

Andrew Milliken provided an overview of the Landscape Conservation Cooperative (LCC) program, designed by the United States Fish and Wildlife Service in response to the unprecedented scale, rate and complexity of natural resource management challenges, accelerated by climate change. The science-based approach to conservation at a landscape scale engages many partners, and is founded on an adaptive, iterative process. Using examples from three LCCs, each involving Canadian

partners, he described the first year successes (e.g., governance structures, connectivity analysis models, decision support tools, science partnerships), challenges (e.g., long-term science programs requiring short-term successes; strengthening the relationship between science and management, secure funding), and plans for the coming year. LCCs represent an opportunity and an organizing tool for conservation of large landscapes that span the US-Canada border.



Landscape Conservation Cooperative boundaries.

Yellowstone to Yukon: An Example of Citizen-led Landscape Conservation on a Continental Scale

Rob Buffler, Executive Director, Yellowstone to Yukon Conservation Initiative

Rob Buffler described the Yellowstone to Yukon (Y2Y) Conservation Initiative as a citizen-led conservation project focused on the mountain landscapes from Yellowstone to Yukon that includes lands in 5 states, 2 provinces and 2 territories. Approximately 80% of the 777,000 km² within the initiative’s boundaries is publically owned and 18% of this total is protected. To accomplish its landscape conservation objectives in this area of continental significance, Y2Y uses the grizzly bear as its **umbrella species**, focusing effort on grizzly bear habitat conservation. Y2Y’s grizzly bear habitat objectives are to secure core areas, restore bear populations in one depleted



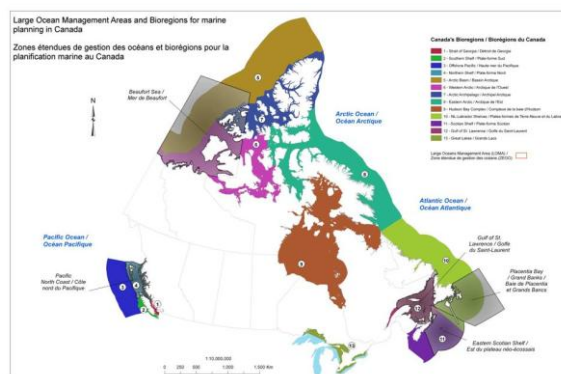
Bridging fracture zones for an umbrella species such as the grizzly bear is a key objective of the Y2Y Biodiversity Conservation Strategy.

range, connect core areas, and bridge fracture zones. Actions and programs aimed at conserving grizzly bears (e.g. wildlife overpasses on major highways) are also of benefit to the larger suite of species in the project area. With a multitude of private and government conservation organizations and agencies as partners, Y2Y leverages its limited staff and resources (9 staff and a \$1.8M operating budget) in the multi-jurisdictional, multi-stakeholder approach needed for successful conservation at a landscape level.

National Marine Protected Area Network Planning: Adapting International Guidance on Network Design to the Canadian Context

Mary Rothfels, Manager, Marine Protected Area Network Planning, Oceans Directorate, Fisheries and Oceans Canada

Mary Rothfels stated that internationally, Canada has committed to establishing a marine protected area (MPA) network that protects 10% of Canada's coastal and marine ecosystems of ecological significance by 2020. Domestically, establishment of this MPA network is enabled by the Oceans Act. To work towards the 10% target, Fisheries and Oceans Canada has developed a proposed "National Framework for Canada's Network of Marine Protected Areas", aimed at protecting ecologically/biologically significant areas and ensuring representation of relatively intact marine ecosystems.



Canada's marine environment has been divided into 13 bioregions.

The framework's proposed vision is "an ecologically comprehensive, resilient, and representative national network of marine protected areas that protects biological diversity and health of the marine environment for present and future generations". To assist planning and implementation, Canada's marine environment has been divided into 13 bioregions and eligibility criteria for candidate areas established. The MPA network's proposed goals are i) to protect marine biodiversity, ecosystem function and special features, ii) support conservation of Canada's marine resources/habitats and their socio-economic values and ecosystem services, and iii) to enhance public awareness. Marine conservation at the scale contemplated has many parallels for landscape conservation in a terrestrial context, not the least of which is recognition of the role of humans in ecosystem management and the importance of socio-economic considerations.

A Protected Areas Strategy for the Northwest Territories

Susan Fleck, Director, Wildlife Division, Department of Environment and Natural Resources, Northwest Territories

The first of the case studies was Susan Fleck's presentation on the Northwest Territories Protected Areas Strategy. A booming diamond industry was the driver for the strategy, the development of which was a decade-long process, guided by a multi-party steering committee made up of aboriginal organizations, industry, conservation organizations and government. The strategy goals are to protect special natural or culturally significant areas and protect core representative areas within each ecoregion. A made-in-the-NWT element of the protection process is the concept of a sponsoring agency to invest the effort required to guide legal designation of a particular area. The sheer magnitude of the areas under consideration, and the largely undeveloped land base presented significant opportunity for large landscape conservation. Many challenges are consistent



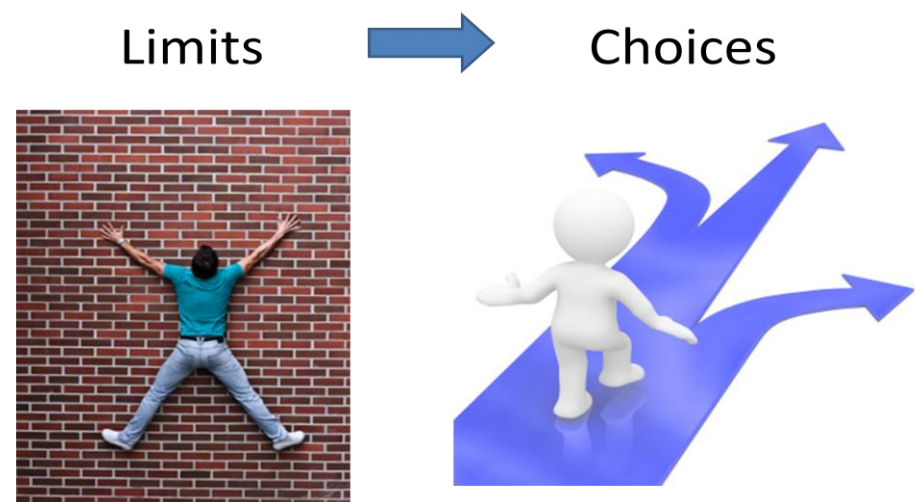
The sheer magnitude of the areas under consideration for protections presents unique challenges and opportunities for landscape conservation in the NWT.

with those of other regions, including capacity, information gaps, the need to balance conservation/protection with economic development, slow progress, and confirmation of a long-term source of funds. Challenges specific to the NWT include the need to develop northern-specific tools for the strategy and the dynamics of unsettled land claims.

BC's Valued Components Framework

Kaaren Lewis, Director, Ecosystems Protection and Sustainability Branch, Ministry of Environment, British Columbia

After two decades of focused effort on land and resource use planning and large landscape conservation, and continued increase in the area of the province set aside for conservation/protection purposes, a new approach to area-based, integrated natural resource decision-making is required to meet BC's current and future biodiversity and wildlife conservation needs. Key drivers for this change are continued declines in biodiversity and ecosystem resilience, climate change, human population growth, expansion of traditional and new industries, and a declining appetite for further protected areas, all overlain by cumulative effects of these stressors. A common framework and new tools for addressing cumulative effects is under development. The Valued Components Framework is foundational to this work, and aims to enable a shift in approach to natural resource decision-making. Three key shifts are envisioned: a change from a **project** focus (assessing the effects of proposed individual applications and projects) to one of a **values** focus (asking whether and how development decisions affect key environmental, social and economic values) ; shifting from **reactive** decision-making to **proactively considering, assessing and influencing long term development patterns**; and a move from setting **limits** to development to exploring objectives and giving **choices** in relation to the future state across environmental, social and economic outcomes. Demonstration projects currently underway in 2 regions of the province will give insight into application of the valued components approach in different decision contexts.



A key shift in natural resource decision making in BC is to offer choices rather than limits.

Landscape Conservation in Ontario: An Overview of Policy, Programs and Practices

Eric Boysen, Director, Biodiversity Branch / Renewable Energy Program, Ontario Ministry of Natural Resources

Defining large landscape conservation as:

“a public or private initiative that seeks to functionally connect landscapes and landscape processes across jurisdictions”, Eric Boysen described successful programs as multi-jurisdictional, multi-purpose and multi-stakeholder, starting with a broad vision but including tools that local groups can use. For planning, Ontario has been divided into four ecozones, each with its own set of challenges and opportunities, ranging from the extreme pressure on landscapes and biodiversity from various human activities in the south to the relatively intact ecosystems of the north.

Using a number of Ontario landscape conservation programs as examples, he described statutory, policy and citizen-led landscape conservation approaches. Of

particular interest to the workshop participants was the variety of lessons learned from the different conservation approaches. Implementation that meets the high expectation resulting from strong positive community support is critical (Oak Ridges Moraine). Management concepts also must be brought to communities in ways that are understood to ensure values are shared (Far North Act). There must also be clear multi-level objectives balancing landscape-based management with single species protection (forest management planning). In the widely differing conservation approaches, strategic partnerships with stakeholders and conservation organizations are always key elements. Mr. Boysen recommended the CWDC consider defining a set of principles as a valuable contribution toward a landscape conservation vision for Canada.

Lessons Learned - Thoughts

Strong leadership and community support required to balance expectations and what can be accomplished

For First Nations – management concepts need to line up with values

Rules-based conservation risks loss of vision

The right scale and scope are critical in order to replicate across geographies

Balance multiple objectives with single species needs

Institutional mechanisms are required to support implementation of landscape approaches, ie. policy support

Challenges:

How big is big enough for landscape conservation actions to be effective?

Steady funding support in current economy

Long-term commitments are required but difficult to achieve



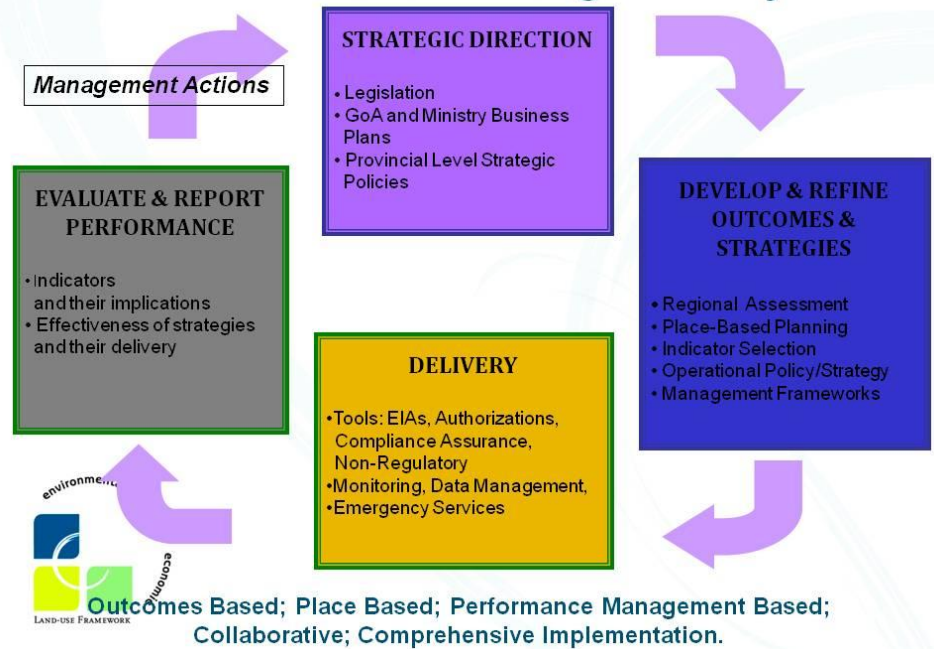
Lessons learned, offered for consideration by E. Boysen.

Implementing the Alberta Land Use Framework

Ron Bjorge, Executive Director, Wildlife Management Branch, Alberta Sustainable Resource Development

Growing pressure on Alberta's landscape is the driver for development and implementation of the Alberta Land-use Framework that will see the creation of land-use plans for seven land-use regions. Ron Bjorge described how Alberta's land-use framework and the regional plans are designed to better balance social, economic and environmental considerations. A critical component is the outcomes-place- and performance management-based Cumulative Effects Management System which aims to move from a project by project approach to prevention of adverse effects to a regulation/allocation system. This allocation system puts individual projects in the context of overall capacity and focuses on achieving a desired outcome on a broader scale. All contributors to the cumulative impact on the region's environment will be considered, in contrast to the past where only large contributors were regulated. The planning process will define regional targets and thresholds at which strategic actions will be implemented as the target is exceeded and the threshold is approached. The first completed plan is for the Athabasca region, in recognition of its sizeable bitumen deposits, boreal caribou habitat and attendant environmental considerations as the bitumen is extracted.

Cumulative Effects Management System



A cumulative effects management system is a critical component of the decision making process in Alberta.

An Overview of Landscape Conservation Planning in New Brunswick

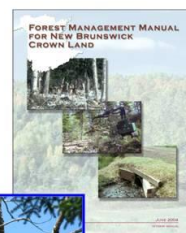
Mike Sullivan, Director, Fish and Wildlife Branch, Department of Natural Resources and Energy, New Brunswick

With 85% of New Brunswick forested, landscape conservation work is driven by forest management, and the forest industry is the biggest stressor. Conservation goals build from the various natural resource management statutes and are reflected in the New Brunswick Biodiversity Strategy. The overarching goal is maintain the diversity and ecological features of the Acadian forest, with attention given to water quality, forest diversity/integrity, healthy wildlife populations, ecologically representative protected areas and improved endangered species status. Within the provincial forest conservation and management planning, targets have been set for specific Acadian forest communities, ensuring wildlife habitat is available. Conservation targets for wildlife and wildlife habitat are established at the appropriate scale stepping down from provincial to ecoregion to ecodistrict. In addition, species- and site-specific criteria have been set for particular wildlife habitats and species. Currently, New Brunswick is evaluating the amount of forest identified for conservation purposes in the province, and a reduction in overall area is expected to be balanced by an increase in the proportion of sensitive communities protected. Maintaining or increasing commercial forest supply in tandem with the conservation objectives will maintain existing timber harvest rates.

Site-specific wildlife habitats

Special features or habitats, examples include:

- Waterfowl & riparian wildlife
- Heron colonies
- Raptor nest sites
- Deer Wintering Areas



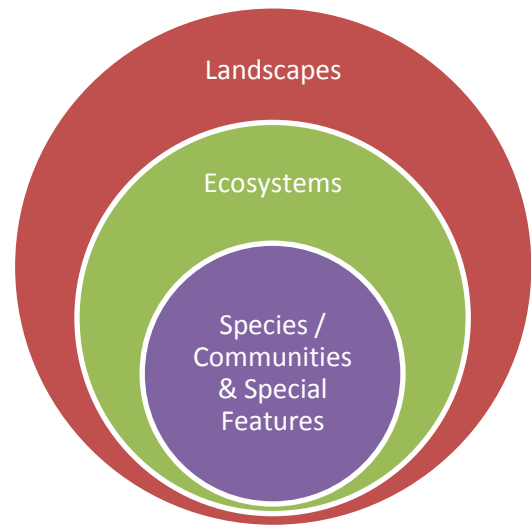
New Brunswick
Nouveau Brunswick

Focus on localized habitat issues remains a priority in NB.

Discussion

Discussions during an afternoon breakout session generated numerous ideas and thoughts to help define the role of the CWDC in large landscape conservation, for example:

- The North American Waterfowl Management Plan (NAWMP) with its associated Habitat Joint Ventures is an effective large landscape conservation multi-jurisdictional program.
- It is clear that individual jurisdictions themselves continue to remain a barrier with conservation and development mandates being partitioned amongst different departments/agencies.
- Across the country, the pressures on the landscape vary considerably.
- Large landscape conservation must occur at an ecologically appropriate unit rather than a political unit. Ecozones were the most popular and there appeared to be general consensus that a common language and metrics are required.
- The CWDC has an important role to play in information sharing, creating synergy and building on the collective knowledge and experience.
- The challenge is not in policy or planning but in **implementation**. Helping the public to understand the need for large landscape conservation is difficult as this concept may be nebulous to them.
- Considerable effort and resources are being devoted to single species/critical habitat issues and it is important that these conservation efforts are scalable to/from ecosystems and the larger landscape in general.



Successful implementation of large landscape conservation requires multi-scale consideration.

CWDC reaffirmed that its role is to directly protect/conservate large landscapes for wildlife, while also indirectly influencing other landowners to do the same by:

- a. Conveying the benefits and value of large landscape conservation to other colleagues internal and external to government (deliver the message).
- b. Sharing and transferring information, ensuring the best science, policy and management approaches are made available.
- c. Working towards common language in large landscape conservation.
- d. Ensuring that large landscape conservation is multi-jurisdictional, multi-stakeholder. An efficient way to accomplish this is to use the Ecozone/Ecoregion multi-species approach.

- e. Guarding against redundancy by building on existing structures and partnerships such as the Habitat Joint Ventures.
- f. Escalating challenges and opportunities to senior management for cross jurisdictional cooperation if necessary.
- g. Providing a common vision and set of principles to create a common approach and message across Canada. Fundamentals need to be endorsed by the CWDC.

Conclusion

The Large Landscape Conservation Workshop provided a valuable information sharing venue. The presentations and follow-up discussions emphasized that there are many different and some common threats and stressors across the country and that jurisdictional priorities and responses are often based on those threats and stressors.

There are many barriers (real and perceived) to large landscape conservation and most are well understood. In general, the challenge is to find an appropriate balance between Environmental/Economic/Social considerations. Development has often been ahead of planning. Pressures occur throughout all landscapes yet they are not equally distributed. Projects have typically been considered on an individual basis, rarely have the cumulative effects been considered until after the fact.

The ability of the CWDC to have a meaningful impact on large landscape conservation also has a number of barriers. Jurisdictions and agencies have different roles and responsibilities and wildlife directors often have limited influence on broader mandates within government. There are many potential tools ranging from public awareness to legislation. Knowing which tool(s) will contribute best to a desired outcome continues to be a challenge.



Finding the appropriate balance between social, economic and environmental issues is a key challenge.

Engagement is a reoccurring theme. It is very important to make the appropriate linkages to engage the public, non-governmental organizations and other government colleagues. Presenting information at the appropriate level (or scale) is required to effectively communicate. How potential actions contribute to the large landscape conservation initiative, both positively and negatively, must be understood. Many problems have manifested over decades, and even centuries in some cases. The solutions will take time. Short term goals/pilot projects and meaningful examples are required.

The CWDC has a role to play to create, endorse and promote the fundamentals behind large landscape conservation and to share this message with colleagues, stakeholders and landowners. This includes coordinating the development of a vision for large landscape conservation in Canada, sharing information, ensuring the best available science and modeling tools are available, and standardizing a common language and metrics.