

## **Appendix 4.3**

### **Submissions Received Outside the Hearings**

**Griffiths, Robert**

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**From:** Charlotte Wolfrey [charlotte\_wolfrey@nunatsiavut.com]  
**Sent:** November 2, 2011 15:49  
**To:** rpa@lisaplan.ca  
**Subject:** Comments on the LISA Regional Land Use Plan  
**Attachments:** LISA Regional Land Use Plan Comments.doc

I am enclosing my comments on the Draft of the Regional Land Use Plan for the Labrador Inuit Settlement area. If you want clarification please contact me at 709-947-3380 or 709-947-3379 or by email [charlotte.wolfrey@nunatsiavut.com](mailto:charlotte.wolfrey@nunatsiavut.com).

Charlotte Wolfrey  
AngajukKak

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## LISA Regional Land Use Plan Comments

I am presenting this to give my views on the land use plan; I will start with an overall comment then address my concerns page by page as it occurs in the plan.

I first have to point out my disappointment as one of the Angajukkaat that the distinction of Resource Development has been eliminated from the land use plan. I fail to understand why, when we know there are non renewable and renewable resources in known areas, we would not designate that land as so. When the first consultations on the development of a land Use Plan occurred in 2009 or 2010 I know that here in Rigolet the people at the consultation meeting wanted to see lands designated as resource development, I think at the time there were lands that had the designation of resource development but for some reason my memory seems to tell me that there was **some** concerns that even though there was resources and designated land for resource development. Having said that I hope I can make myself clear, when there were lands designated as resource development and people were concerned it would be too hard to proceed with, for example, a mine, how now to designate it as General Use can you assure people that there can be resource development? It seems to me it is a step backward to take out the designation of Resource Development. I say this with deep concerns for the welfare of my community, Rigolet has a population that is decreasing, some of the youth especially those who have gone to university are not returning, there are no jobs. People for the most part live on EI on welfare and are on pensions. There are less than 30 full time jobs and maybe 15 part time jobs here. So we have to try and get some kind of development to sustain our community. We will be a retirement community if we cannot find some kind of industry whether it is from renewable or non renewable resources. We have to find some economic development.

Page 14, Paragraph 3 under 2.1

Will the public be notified if there are revisions to the plan?

Page 15 2.3 Public Consultation Process

The question I have is how much were they listened to? Just from my recollections of the consultations here the people wanted to see Resource Development addressed in the plan.

Page 37 3.6 Geotourism and Tourism

Are there separate statistics for Newfoundland and Labrador?

Page 38

Has there been an evaluation of the Strategic Plan? Is this really what is happening or is it just dreams?

Page 44 4.3 Economic Development-Goals and Objectives

Non Renewable resources- D and E Is this identification done now? When will it be done? By whom and in consultation with whom?

Page 47 5.7 Water Bodies, Water Courses and Wetlands

2 (a) Drinking Water- I just want to point out about clean drinking water, we do not have that right now, here are numerous boil orders and worse there are HAA's and THM's that are well above the recommended Canadian standards

Wetlands (4) I wonder are Jacques Lake and Michelin Lake on what is classified as wetlands? I am assuming that it is.

Page 48 5.11 I am assuming that these will be determined by Nunatsiavut Government?

Page 50 6.0 Land Use Designations

As I pointed out earlier there should be a resource development designation

Page 53 6.4.1 Heritage Communities

I am thinking about places like Smokey, Indian Harbor would those not be heritage communities?

Page 56 6.4.4 SPA-4-Sensitive Area

I just wondered where the map that this refers to? It would be nice to see what areas that are adjacent to Groswater Bay and Lake Melville are designated.

Page 57 General Provisions.....

Who will do the review? Will there be consultations? With whom?

Page 60 Winter Trails and Winter Routes

Instead of saying these trails shall not be blocked and must be taken into consideration, why not just say there have to be alternate routes that do not add on significant travel time? Just curious.

**Griffiths, Robert**

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**From:** Griffiths, Robert  
**Sent:** November 3, 2011 14:26  
**To:** 'Charlotte Wolfrey'  
**Cc:** Bob Warren  
**Subject:** Comments on the LISA Regional Land Use Plan  
**Attachments:** Charlotte Wolfrey response.doc

Hello Charlotte,  
I have forwarded your comments to Bob Warren. Since you had a number of questions, I have provided a response in the attachment. If after reviewing, I would be pleased to discuss these further with you.

Regards, Rob

**Robert Griffiths**, MCIP  
Regional Planner for the Regional Planning Authority  
for Labrador Inuit Settlement Area  
Tel: 709 729 4981  
robertgriffiths@gov.nl.ca

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**From:** Charlotte Wolfrey [mailto:[charlotte\\_wolfrey@nunatsiavut.com](mailto:charlotte_wolfrey@nunatsiavut.com)]  
**Sent:** November 2, 2011 15:49 PM  
**To:** rpa@lisaplan.ca  
**Subject:** Comments on the LISA Regional Land Use Plan

I am enclosing my comments on the Draft of the Regional Land Use Plan for the Labrador Inuit Settlement area. If you want clarification please contact me at 709-947-3380 or 709-947-3379 or by email [charlotte.wolfrey@nunatsiavut.com](mailto:charlotte.wolfrey@nunatsiavut.com).

Charlotte Wolfrey  
AngajukKâk

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Hello Charlotte,

I have forwarded your comments to Bob Warren.

You have asked a number of questions and I will try to provide some background or answers to your questions.

Page 14, Paragraph 3, under 2.1

When a Plan is amended or is subject to the five year review there will be public consultation. For the public consultations to take place, notification will be necessary.

Page 15, 2.3 Public Consultation Process

The Regional Planning Authority considered comments made at the consultation meetings held in February and March 2010 in the five Inuit communities, North West River, Happy Valley-Goose Bay and in St. John's. It also received written submissions and it also considered the comments made by both governments. Based on all these comments it made a number of revisions to the Plan that is now before the Commissioner. The Authority heard views expressed that differed from allowing exploration and mining to take place almost everywhere within LISA to protecting large areas for traditional uses (hunting, fishing, trapping and gathering). In summary, the Authority heard that the Plan was too restrictive or permitted too much development.

The reason the Resource Development designation was removed was because it required an amendment to the Plan whenever a major development or mine was proposed. There was very little support for this approach. The Authority decided that it was more appropriate to permit major development and mining to take place as Discretionary Uses within the General Use designation. A discretionary use can proceed if the following criteria are complied with:

- the government having jurisdiction (and in consultation with the other government) determines that the use may be appropriate in the proposed location;
- public consultation is undertaken to inform residents of the proposal;
- an environmental assessment is undertaken where required;
- the Nunatsiavut Government determines that the use will not adversely affect Inuit rights under the Land Claims Agreement

If a major development or mine does proceed it will also require a Inuit Impacts Benefits Agreement.

The process for approving a Discretionary Use should require less time and provides greater certainty to the proponent than an amendment to the Plan to redesignate land as Resource Development. The process still ensures a rigorous review to make sure the use is appropriate and the impact on the environment is minimized while protecting the rights of the Inuit.

Page 37, 3.6 Geotourism and Tourism

We could not find statistics related specifically to Labrador.

Page 38

The Authority did not evaluate the Strategic Plan. It was reviewed in the preparation of the Plan.

Page 44 4.3 Economic Development – Goals and Objectives

With respect to (d), the Plan utilizes the General Use designation to identify land where mineral and petroleum resource exploration may take place.

With respect to (e), the Plan permits extraction of non-renewable resources such as a quarry to proceed anywhere within the General Use designation and as a Discretionary Use in the Traditional Use designation. For minerals, the extraction of this resource is only permitted as a Discretionary Use within the General Use designation. The review process and permitting system helps to ensure that the objectives of the environments and the social, cultural and quality of Life of Inuit and other residents are maintained.

Page 47 5.7 Water Bodies, Water Courses and Wetlands

The policies in the Plan are designed to protect water sources based on new development. Hopefully existing problems will be addressed over time.

The Authority is not involved in or knowledgeable of the specific details of proposed developments. The policy with respect to wetlands would be applicable when required permits are applied for.

Page 48 5.11

Usually Protected Areas are established by the federal or provincial governments. It may be possible for the Nunatsiavut to also establish a Protected Area but it is probably not necessary since it has control over development within Labrador Inuit Lands.

Page 50 6.0 Land Use Designations

This was dealt with earlier in the comments related to page 15.

Page 53 6.4.1 Heritage Communities

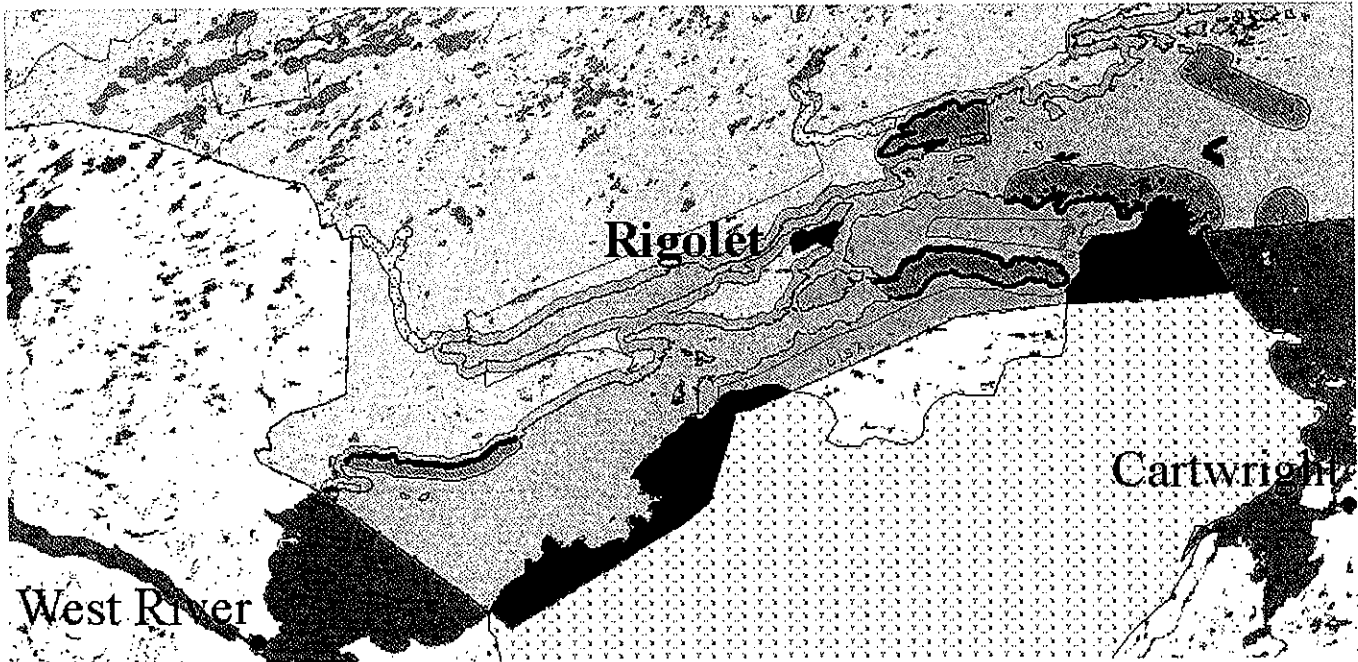
The Authority included all the Heritage Communities that were identified during the consultations in 2010. The Plan provides for additional ones to be added to Schedule C and in Appendix E.

With respect to Heritage Communities, all the uses within the Traditional Use and General Use designations are permitted provided archaeological resources or burial sites are not disturbed. If it is known that there are archaeological resources or burial sites when application is made for development or a permit to build a cabin is applied for, then this would have to be addressed. So Heritage Communities already have a certain level of protection.

Page 56 6.4.4 SPA-4 Sensitive Area

The following is extracted from Schedule A to show all the SPA-4 areas. I changed the colours so that it is more evident. The SPA-4 areas are shown in

red. There are two areas on Lake Melville, one in Back Bay and two in the Groswater Bay area.



#### Page 57 General Provisions

The government having jurisdiction will need to ensure that a review is undertaken. They can often require the proponent to do the necessary studies and the government can review the work undertaken. Usually the matters are addressed during the Environmental Assessment and Archaeological Study.

#### Page 60 Winter Trails and Winter Routes

The reason the wording is the way it is that there the Authority was told that there are some locations (specific ones identified north of Nain and inland routes) where the only means of getting from the communities to cabins and hunting and fishing areas was along specific routes and that there are no viable alternatives.



Friday, November 4<sup>th</sup> 2011

Bob Warren  
Commissioner, Regional Land Use Plan for LISA  
c/o Regional Planner for the RPA for LISA  
Confederation Building, West Block  
PO Box 8700 St. John's NL A1B 2J6

**Re: Comments to the public hearings on the draft LISA land use plan**

Dear Mr. Warren

The Canadian Boreal Initiative (CBI) wishes to congratulate the Regional Planning Authority for the work undertaken to date in planning for land use within the Labrador Inuit Settlement Area, and offer comments on the Plan for consideration as it is revised and prior to submission to the Nunatsiavut and Provincial Governments.

CBI is a national convener for conservation in Canada's Boreal Forest and our work is grounded in the Boreal Forest Conservation Framework, a vision endorsed by over 1500 international scientists. We work with conservation organizations, Aboriginal Peoples, industry and other interested parties to link science, policy and conservation solutions across Canada's Boreal Forest region to achieve:

- A network of large, interconnected protected areas and conservation zones over at least half of Canada's Boreal Forest; and
- The use of leading-edge sustainable development practices in remaining areas.

We wholeheartedly commend the emphasis throughout the Draft Regional Land Use Plan (the Plan) on "the ecologically responsible use of the area's natural resources for promoting economic vitality, while also observing and safeguarding Inuit rights, culture, history and well-being," and through the balanced approach to zoning towards achieving that outcome.

To this end, we offer the following comments and suggestions to help ensure that these objectives will be achieved,

Sensitive Wildlife Areas -George River Caribou

CBI believes the Plan has taken a positive step in zoning of the calving ground as Traditional Use. However, we note that the area delineated has shrunk between successive iterations of the draft Plan. We suggest the area zoned Traditional Use be expanded to include the full breadth of calving area that the George River herd utilized when the herd was at its peak of 800,000 animals as a precautionary approach, particularly given the current status of the herd.

We also note there are sensitive areas within the broader calving area not currently zoned as a Sensitive Wildlife Area that could be strongly affected by development. Areas like Strange Lake should be looked at in more detail to best determine how zoning for development, and zoning for conservation can be managed with the most rigor to truly ensure sustainable development and effective conservation. CBI



recommends that by planning for the herd when it was most robust we can better ensure the future landscape will provide room to grow from the significantly lower levels of the herd seen today.

CBI further commends the policy to protect calving areas and migration routes (General Policy 5.3) by assessing development proposal impacts on migration routes. However, we suggest that critical migration routes and corridors be mapped and zoned Sensitive Wildlife Areas up front in the Plan as this would ensure certainty to both the caribou as well as to development proponents, avoiding confusion and preventing needless expense in pursuit of development in a sensitive area. This zoning can be updated along with the Plan over time if and when herd movement dynamics change.

### Salmon and Char Rivers

CBI supports the efforts of the Plan to adopt greater protection for Salmon and Char rivers as special policy area (SPA) designations. However, we are concerned that adequate protection for this resource may not be achieved through the proposed approach.

The SPA designation has been assigned to “the area containing the primary rivers where char and salmon spawn and which is prime habitat for these species.” While Salmon and Char do occupy the primary river (main stem) at times, it is usually during migration when they are either moving to headwaters or out to the sea. For spawning and rearing purposes, it is actually secondary and third-order tributaries that are most important. Furthermore these tributaries act as regulators of the water quality found in the rest of the watershed, controlling sedimentation, flow regimes and nutrient cycling. For example, in the current draft Plan the Adlatok river main stem has been designated SPA while both Shapio and Harp lakes are zoned General Use. Industrial development in these important areas of the Adlatok watershed could seriously impact downstream sections of the river.

In planning for Salmon and Char, we recommend adopting a watershed approach. By examining the full watershed, we can develop a better understanding of how the entire system works to support Salmon and Char, and zone the most important areas for conservation, and permit sustainable development in other parts. It will be important to develop thresholds for disturbance within the watershed as a whole, and to identify parameters that can be measured in order to guide management decisions within the SPA areas.

### Protected Areas

CBI commends the zoning of areas adjacent to the Mealy Mountains National Park as Traditional Use to ensure compatible land uses within the greater Mealy Mountains/Lake Melville ecosystem. We are also supportive of the policy to establish Protected Areas in all land use designations. Protected Areas are designed to preserve wilderness, wildlife and biodiversity for future generations and can also provide avenues for learning, research and enjoyment.

In Canada, over 10% of the country has been set aside as Protected Areas. Both Nova Scotia, and Quebec have recently made commitments to protect 12% of their province's by 2015, and Quebec has also pledged that 50% of its northern area will remain undeveloped. The Convention on Biological Diversity recommends protecting 17%, while contemporary scientific evidence suggests that to conserve boreal ecosystems effectively over the long term between 40-60% of large areas should remain intact (undeveloped). The threshold set by the Nunatsiavut Government's Environmental Protection Act requiring 70% of the land remain undeveloped in relation to all other developments is both strong and



sound. Protected areas planning through land use planning is an effective way to help ensure that threshold is maintained.

In planning for development, it's best to ensure that ecologically important areas are conserved at the outset and protected areas are one of the best legislative tools. CBI recommends that as the draft Plan moves forward, protected areas planning should get underway. Areas zoned Environmentally Sensitive Areas within the Plan (such as Important Bird Areas along the coast) can be prioritized while further consideration is given to the broader region covered by LISA. Ongoing provincial processes such as the government's Natural Area System Plan, or the Labrador Conservation Blueprint spearheaded by the Nature Conservancy of Canada should be utilized to provide a strong foundation for protected areas planning.

Interpretation, implementation and development control

CBI is very supportive of the recognition given to cumulative effects in the Plan. CBI encourages the Regional Planning Authority to recommend a framework for Cumulative Effects monitoring and development planning be developed in advance of the 5 year review of the LISA plan.

Appendix C – Recommendations

Many of the recommendations previously mentioned, such as collaborative efforts to develop the provincial Natural Areas System Plan in LISA, could be incorporated into Appendix C of the Plan. In addition, CBI recommends the addition of timelines on many recommendations will help ensure these recommendations are fulfilled. Finally, recommendations as to how the Plan's 5 year revision will unfold can help all parties to the Regional Planning Authority adequately prepare for the next iteration.

CBI would be pleased to provide a detailed briefing on any of the recommendations contained in this document, and would welcome an opportunity to discuss them with the Regional Planning Authority or its participating parties.

Sincerely,

Jon Feldgajner  
Regional Advisor, Newfoundland and Labrador

Valerie Courtois  
Sr. Advisor, Aboriginal Relations

CC: Larry Innes, Executive Director



4 Burnwood Drive,  
P.O. Box 1105, Station C  
Happy Valley-Goose Bay, NL  
A0P 1C0

Mr. Bob Warren, Commissioner  
Regional Land Use Plan for LISA  
c/o Regional Planner for the RPA for LISA  
Confederation Building, West Block  
PO Box 8700

November 4, 2011

**Re: Draft Labrador Inuit Settlement Area (LISA) Land Use Plan**

Dear Mr. Warren;

The Nature Conservancy of Canada (NCC) would like to congratulate the Regional Planning Authority for completing the draft LISA Land Use Plan, which will lay the foundation for both conservation and development on Labrador Inuit Lands (LIL) and Labrador Inuit Settlement Areas (LISA). As an organization working towards gathering, creating and sharing information necessary for land-use planning and resource management in Labrador, we know this was not an easy task!

NCC is Canada's leading non-government, land-conservation organization. Since 1994, NCC has worked with many supporters, to help conserve more than 12,500 acres in Newfoundland and Labrador. In 2009, in partnership with NL's Department of Environment and Conservation, NCC launched a multi-year project to draft a comprehensive *Conservation Blueprint* for Labrador. The goals of this work are twofold. The first is to collaborate with partners to develop the information and tools necessary to make smart conservation decisions about Labrador's lands and waters. The end result will be the creation of a "biodiversity atlas" that provides current data and mapping of Labrador's species, ecosystems and landscapes. The second is to use this information to identify areas of high conservation value.

After 2 years of work, NCC has collected and developed a large volume of data on Labrador's natural environment. We are certain that this information will prove valuable to future land-use planning initiatives. Although we understand that the LISA plan is in the final stages of development, we hope that outcomes of the Blueprint may be used to inform the current plan or future iterations. NCC would be pleased to discuss outcomes of the Labrador *Blueprint* and how it may benefit conservation planning in LISA lands.

Please find attached a project update that outlines achievements of the *Blueprint* to date. If you have any questions or would like to discuss any aspect of this project further, please do not hesitate to contact me ([lindsay.notzl@natureconservancy.ca](mailto:lindsay.notzl@natureconservancy.ca); (709) 896-2000), or Doug Ballam, NL Program Manager ([douglas.ballam@natureconservancy.ca](mailto:douglas.ballam@natureconservancy.ca); (709) 753-5540).

Once again, please accept my congratulations on this achievement!

Sincerely,



---

Lindsay Notzl,  
Labrador Conservation Planner, Nature Conservancy of Canada  
Happy Valley-Goose Bay, NL

cc Doug Ballam  
NL Program Manager, Nature Conservancy of Canada  
St. John's, NL



# LABRADOR CONSERVATION BLUEPRINT

*Project Update August 2011*

## **SUMMARY:**

The Nature Conservancy of Canada (NCC) is a national not-for-profit, non-advocacy organization that works with a wide variety of willing partners to conserve our treasured natural landscapes. Our work is grounded in scientific and community-based approaches to understanding nature's diversity. Across Southern Canada, NCC has completed regional assessments of the biodiversity and ecological function of landscapes located in the most populous and developed regions of our country. These assessments are publicly available as reports, maps and data, and are used regularly by government departments, municipalities, NGOs, industry and private landowners to guide conservation and development activities within the various regions. Our assessments vary in their methods and outcomes based on the particular interests of the partners working on them, and on the degree and detail of the ecological information available. In the Labrador project, NCC has committed to **a new, made-in-Labrador approach** that serves the interests of participating and interested organizations, agencies and individuals.

Relative to southern Canada, Labrador has less available, high-quality information about the distribution and the characteristics of its species and ecosystems that can be freely shared amongst interested parties. The information that is available is also seldom available equally for all of Labrador. As a result, the Project Core Team has focused its work to date on the assembly of ecological information, adding value by organizing it in new ways, and identifying some of the conservation values associated with Labrador's natural features.

**Core Team Partners:** The project was initiated October 2009. To date, Core Team partners include:

- Nature Conservancy of Canada (NCC)
- Torngat Wildlife, Plants and Fisheries Secretariat
- Institute for Environmental Monitoring and Research (IEMR)
- Canadian Boreal Initiative (CBI)
- Memorial University of Newfoundland (MUN)
- Newfoundland & Labrador Depts. of Environment and Conservation (Parks and Natural Areas Division, Wildlife Division) and Natural Resources (Forest Services Branch)
- NunatuKavut Community Council (formerly Labrador Métis Nation)
- Environment Canada - Canadian Wildlife Service (EC-CWS)
- Atlantic Canada Conservation Data Centre (ACCDC)
- Stantec Consulting Ltd.

The NCC also continues to meet, and work with representatives of the Innu Nation and the Nunatsiavut Government, who are engaging with the project but have not yet formally joined the Core Team.

**Management:** NCC Newfoundland and Labrador (Lindsay Notzl-Project Manager & Conservation Planner, Doug Ballam, Randal Greene); NCC Atlantic/National (John Foley, John Riley); NL Environment and Conservation (Jeri Graham)

**Project Timeline:** 1 April 1 2009 to 30 September 2012

**Goal:** To assemble, organize and share the highest-quality and best-available information on the geography and biological features of Labrador; to develop decision-support tool(s) that can be used to organize the results geospatially or to query the information in relation to the conservation interests of participants; and to share project results with participating and interested parties.

## BACKGROUND

*Conservation Blueprints* were developed to provide NCC and its partners with sound, science-based information on which to base their conservation work and to inform land-use decisions. This has involved the assembly, analysis and mapping of current, available scientific data, and development of new data, across large landscapes. The goal has been to identify where conservation has already taken place, and to consider the habitat needs of native species and ecological systems. In and of itself, the data have been valuable to land-use planners and conservation planners. In addition, the data have been analyzed to identify areas for potential conservation to help meet the needs of those native species and ecological systems.

Partners working on *Blueprints* vary from region to region. They have included expert individuals associated with provincial and federal government agencies, Aboriginal organizations (in British Columbia), universities and research groups, conservation data centres (CDCs), industry and environmental organizations. Partners provided support in many forms: project direction, funding, staff time and resources, information and GIS data and mapping. Of particular importance has been the personal expertise and time of the individuals who cooperated in the work. Partners in such projects found ways to share information while respecting the proprietary and cultural interests of data owners. In these projects, NCC was able to freely share all of its value-added data, maps and other products, to use as participants saw fit.

Since 2000 NCC has completed *Conservation Blueprints* for the fourteen regions across southern Canada that are the most densely populated, and the most subject to environmental loss and species decline. NCC has recruited science and GIS staff for this task. The work has proved useful to other non-government organizations, public agencies, landowners and others, and is available on line (see for example, [http://science.natureconservancy.ca/resources/docs/PrairiesParklands\\_MainReport.pdf](http://science.natureconservancy.ca/resources/docs/PrairiesParklands_MainReport.pdf)). In 2009, there were 11,000 external downloads of NCC's *Conservation Blueprints*.

Based on the success of previous *Blueprints*, NCC has been invited to work farther north – to document the biological diversity of Canada's boreal, a relatively intact landscape that is increasingly opening up to forestry, mineral exploration and extraction, and hydro development, as industries seek new opportunities. In 2003, NCC released a report titled *Looking North: A Review of Conservation Opportunities in Central and Northern Canada*, which recommended that NCC initiate work in several regions, including the Western Boreal Plains, Northern Ontario, and Labrador. (Online: [http://science.natureconservancy.ca/resources/docs/looking%20north\\_final.pdf](http://science.natureconservancy.ca/resources/docs/looking%20north_final.pdf))

## A LABRADOR BLUEPRINT

Labrador – or “The Big Land” as it is affectionately known – is 294,330 square kilometres; or twice the size of Nova Scotia, New Brunswick, PEI and the island of Newfoundland combined. It stretches from the Strait of Belle Isle north to the tip of Cape Chidley, and includes vast expanses of tundra, taiga and boreal forest ecosystems – from the severe beauty of lichen-strewn barrens to the rich spruce forests of Canada’s eastern boreal. Labrador is one of the ten largest remaining intact forest landscapes in the world, and its Torngat Mountains are the highest peaks east of the Rockies.

Labrador’s natural heritage boasts: world renowned populations of Atlantic Salmon, Arctic Char, and Brook Trout; what was once the world’s largest Caribou herd; and wide-ranging mammals like Wolf, Lynx, and Marten. Canada’s eastern boreal supports significant populations of water birds and waterfowl, for example as much as 50-75% of the breeding population of Black Ducks. Coastal islands sustain North America’s largest colony of Razorbills, and Important Bird Areas of continental significance for breeding Common Eiders. Rare birds like Harlequin Duck and Barrow’s Goldeneye also find refuge here.

Labrador, like much of Canada’s North, faces an entirely different conservation reality than southern Canada. In the South, land is fragmented by sprawling urban land development, and much of nature has been permanently converted to agricultural, commercial and industrial uses. In the North, vast stretches of unbroken wilderness still exist; supporting large herds of migratory species and complex ecosystems functioning at landscape scales. Healthy populations of species that have been extirpated, or whose ranges have contracted and whose numbers are declining sharply elsewhere, continue to thrive here. Canada’s North is also sparsely populated, mostly by scattered, small and historic Aboriginal and northern communities that have longed lived in close connection to the land. Most of the land falls under Aboriginal title, and is the subject of ongoing treaty negotiations or comprehensive land claims.

Access to the North continues to increase, as more land is being opened up to forestry, mining, road-building, hydro development and other industrial activities. The settlement of long standing Aboriginal land claims has played a key role (e.g. settlement of the Labrador Inuit Land Claims Agreement and the establishment of the Voisey’s Bay nickel mine). While Labrador still remains relatively intact, over the coming decades, development will surely have an increasingly large and visible impact on the land. The Inuit, Innu, Métis and other community members and decision-makers will decide where and how such development will occur, by whom, and to whose benefit. These decisions will define the Labrador of future generations, and they deserve our best collective efforts to get it right for Labrador’s unique global legacy.

**In Labrador, NCC is committed to developing a unique, made-in-Labrador approach to conservation and land-use planning that is appropriate for the region. In many ways, this requires us to turn traditional planning ideas on their head.** Unlike many other places in Canada, Labrador has the opportunity to conserve “the best of the best,” not just “the best of what’s left.” At the same time, a balanced approach to conservation and development must be struck. Thus, our first priority is to organize and improve high-quality information about Labrador’s natural environment, and develop new ways to assess the information, so they can be considered and tested *in anticipation* of the land-use decisions and development-approvals that will no doubt arise. Such efforts are aimed at providing a comprehensive understanding of the ecological

landscape to help guide informed decision-making by all parties regarding future industrial and commercial developments.

The first aspect of the project was to develop the partnership necessary for understanding the work that would be most useful to partners. Gathering the available information has been the focus of work to date, with the goal of consolidating and harmonizing existing information sources as well as filling gaps wherever possible. This includes digitization of forest inventory data to 56°N, and the development of a new Ecological Land Units (ELUs) dataset, to assist in characterizing Labrador's geography. The methods used built on the work of NCC and The Nature Conservancy (U.S.) for the *Northern Appalachian-Acadian Blueprint*. Working groups were established to discuss conservation priorities among natural features, species, ecosystems and landscapes. The second aspect of the project, largely the work to come, will complete the data assembly and explore options for sharing it, and develop map-based (GIS) modelling tool(s) that can serve participant needs with regard to considering priority conservation areas from different points of view, at different scales.

## **PROJECT TO DATE:**

NCC developed an initial partnership with the Newfoundland and Labrador Department of Environment and Conservation (Parks and Natural Areas Division) in March 2009, to complete a *Conservation Blueprint* for Labrador. The Department contributed \$300,000 for the 3.5-year project, with the agreement that NCC would match every dollar at a ratio of 1:1. In August 2009, Lindsay Notzl was hired as Project Manager and Conservation Planner, and in September 2009, began work in Happy Valley-Goose Bay. Introductions with community organizations, agencies and others took place immediately, guided by Mr. Winston White, NCC Atlantic Regional Board Member. A partnership of groups sharing a common interest in biodiversity conservation – the Core Team – was formed in February 2010. Three core team meetings have been convened in Labrador to develop this shared understanding, and to guide and track project development.

### **Develop the Partnership**

1. Core Team Meetings
  - 25 March 2010: Terms of reference, roles and responsibilities, workplans, data sharing, etc.
  - 7 October 2010: Work review; development of ELU approach, working groups for specific tasks, etc.
  - 21-22 March 2011: Work review; workshop on Labrador conservation values from both scientific and Aboriginal Knowledge perspectives, and on past approaches elsewhere; led by Drs. Tom Nudds, University of Guelph, and Yolanda Wiersma, Memorial University.
2. Technical Consultations
  - The Nature Conservancy (U.S.), Global Forest Watch Canada; Canadian BEACONS (Boreal Ecosystems Analysis for Conservation Networks) Project, NWT Protected Areas Strategy; CBI and other conservation planning, GIS and modeling specialists.
  - Quebec Ministère du Développement Durable, de l'Environnement et des Parcs (MDDEP) ecological land classification specialists.
  - NL agency program specialists (forest-resource-inventory information; geology mapping, human-footprint assessments methods; etc.)
3. Community Engagement
  - Meetings with community organizations, agencies, leaders of related activities, etc.
  - Development of communication materials.
  - Establishment of collaborative website to share data and other resources with participants (PB Works)
  - Funds raised to address engagement challenges facing participating representatives of Innu Nation, Nunatsiavut Government, and NunatuKavut Community Council.
4. Fundraising
  - NCC has developed the project prospectus and proposals to raise funds to meet project needs, and will continue to do so.

### **Gather the Information**

- Data scoping and development of data dictionary (i.e. “state of the data”)
- Data collected, consolidated and revised for sharing, comparing and possible analysis. Data layers collected to date include:
  - Digital Elevation Model (DEM) for Labrador. New dataset developed by tiling existing Canadian Digital Elevation Data at a scale of 1:50,000.

- Re-classified elevation data for Labrador. New dataset created using the DEM that illustrates vegetation classes relative to broad-scale shifts in vegetation patterns. Classes were developed through a literature review and analysis of the Earth Observation for Sustainable Development of Forests (EOSD) data supplied by NRCan.
- Bedrock and surficial geology data for Labrador. Re-classified data layer based on existing information supplied by the NL Geological Survey at a scale of 1:1,000,000.
- Landforms data for Labrador. New digital data that combines information on elevation, slope, aspect, surface curvature, and upslope catchment area into one comprehensive data layer.
- Ecological Land Units (ELUs). First development of ecological-system, or vegetation-landform, mapping for Labrador, for describing the variability of Labrador ecosystems, their potential to support particular ecosystems, and their potential to adapt to climate change. (Already used by NL Department of Natural Resources to plan field sampling.)
- Current Forest Resources Inventory (FRI). Existing data supplied by the NL Dept. of Natural Resources. Data available for all of District 19a, and partial coverage of Districts 20, 21 and 22.
- Global Forest Inventory (1968-1972). Newly available data in digital format. Intensive and Extensive maps provide comprehensive data to 56 degrees north. Currently only Intensive maps (1:20,000) are available, with plans to complete digitizing of Extensive maps (1:50,000) by December 2011.
- Earth Observation for Sustainable Development of Forests (EOSD) for all of Labrador. Existing information supplied by Natural Resources Canada.
- Ecological Land Classification datasets (Meades, Lopoukhine, ESWG). Existing data supplied by NL Dept. of Environment and Conservation.
- All wetlands data for Labrador. Existing data extracted from National Topographic Database and FRI and tiled together as well as Peatlands of Canada database.
- Rivers/streams - Labrador-wide data at 1:50,000 scale. Existing data extracted from National Topographic Database and tiled together.
- Lakes/ponds/reservoirs – Labrador-wide data at 1:50,000 scale. Existing data extracted from National Topographic Database and tiled together.
- Water catchment areas. New data created through hydrologic modeling to provide regional watershed information for possible modeling applications.
- Draft lists of rare and at-risk species, and data on known occurrences and distributions throughout Labrador. Distribution data supplied by Atlantic Conservation Data Centre (ACCDC).
- Important Bird Areas (IBAs). Existing data supplied by Dept. of Environment and Conservation.
- International Biological Programme (IBP) sites. Existing data supplied by Dept. of Environment and Conservation.

## **WORK GOING FORWARD:** Year 3 of the project (1 April 2011 - 1 September 2012)

### **Develop the Partnership**

- Extend participation in the project to new participants and introduce it to additional parties.
- Work individually with representatives from Innu Nation, Nunatsiavut Government and NunatuKavut Community Council to explore the best ways to share information and support transfer of data to digital media.
- To the degree possible, NCC will assist in organizing and/or gathering information about conservation priorities from an Aboriginal Knowledge perspective.

### **Gather the Information**

- Continue to assemble and organize existing and new data.  
Examples are:
  - Complete digitization of Global Forest Inventory (1968-1972) north to 56 degrees (Phase 2).
  - Hold workshop to refine Ecological Land Classification system for Labrador, integrating elevation, latitude, geology, forest/vegetation, and other assembled data.
  - Further discuss possible analysis of sites of high conservation value.

Priority going forward will be to address two further phases of the project as it is planned to date.

### **Organize the Information**

- **Human Footprint Mapping**  
As has been done elsewhere, including the Maritime provinces and the northeastern United States, data may be usefully organized to illustrate the “human footprint,” where human development impacts are greatest.
- **Description of Labrador Ecoregions and Ecodistricts**  
Previous efforts at characterizing the geographic variability of Labrador’s biological and geological diversity have been reviewed as part of the project, and the assembled information, in particular the new ELU data, will be organized to provide new descriptions of Labrador’s ecological regions and districts.
- **Labrador Nature Atlas**  
The concept of an atlas of Labrador biodiversity arose in response to the relative absence of easily accessible, broad landscape information on the natural features of Labrador. A table-of-contents will be developed to advance discussion of what such an atlas may include.
- **Decision-Support Tool(s)**  
There are many possible approaches to conservation and land-use planning in Labrador, and different parties may have different priorities in this regard. The project will explore the development of “decision-support tool(s)” based on assembled data and on available GIS software, which can be shared openly, and used by any party to organize and query the information in relation to different conservation objectives. Adjustable aspects of the tool may be spatial (by area of interest, watershed, ecodistrict, etc.), qualitative (for example, the most diverse, more culturally important), or numerical (for example, if representation of a particular proportion of the region is desired).

### **Share the Information**

- **Labrador Nature Atlas**

Initial discussion has considered the possibility of sharing all the above-referenced data, information and tools within the general framework of an “atlas” of Labrador biodiversity. Options for distribution include hard-copy report, interactive website, or distributed CDs. Written material may need to be published in several languages (e.g. Innu-aimun and Inuktitut).