DRAFT MINUTES Sept 9-11, 2003

Hudson Bay Ocean Working Group¹ Meeting, Rankin Inlet, NU

PARTICIPANTS:

Janet Akat Nunavut Wildlife Management Board, Arviat, NU

David Alagalak Kivalliq Wildlife Board, Arviat, NU

Flora Beardy York Factory First Nation (YF), York Landing, MB

Marion Beardy First Nations Elder, York Landing, MB Sherrie Blakney Natural Resources Institute, Winnipeg, MB

Roy Bukowsky

Geoff Cowie

Fox Lake Cree Nation, Winnipeg, MB

Helen Fast

Fisheries and Oceans (DFO), Winnipeg, MB

Steve Ferguson

Fisheries and Oceans (DFO), Winnipeg, MB

Miriam Fleming Environmental Committee of the Municipality of Sanikiluaq

Paul Fraser Indian and Northern Affairs Canada, Iqaluit, NU

Helios Hernandez Manitoba Conservation, Winnipeg, MB

Alan Johnson Community Gov't and Transportation (CG&T), Gjoa Haven, NU Brock Junkin Nunavut Sustainable Development (DSD), Rankin Inlet, NU

Don MacDonell North/South Consultants, Winnipeg, MB

Micheline Manseau Parks Canada, Winnipeg, MB

Jeffrey Maurice Fisheries and Oceans (DFO), Iqaluit, NU

Colette Meloche Environment Canada, Iqaluit, NU

Steve Newton Fisheries and Oceans (DFO), Winnipeg, MB

Gabriel Nirlungayuk Nunavut Tunngayik Incorporated (NTI), Rankin Inlet, NU

Vicki Sahanatien Parks Canada, Iqaluit, NU

Mike Setterington

Bert Spek

Fisheries and Oceans Canada, Yellowknife, NT

Veronica Tattuinee

Eric Ukpatiku

Department of Sustainable Development, Arviat, NU

Fisheries and Oceans Canada, Yellowknife, NT

Kivalliq Inuit Association, Rankin Inlet, NU

Kivalliq Inuit Association, Rankin Inlet, NU

REGRETS:

Alain Chouinard

Nunavut Sustainable Development, Arviat, NU
Elizabeth Hallett

York Factory First Nation (YF), York Landing, MB
Glen Stephens

Indian and Northern Affairs Canada, Igaluit, NU

Draft 12/01/03

_

¹ Contact Information: Steve Newton, DFO, Winnipeg, ph. (204) 984-5561, fax (204) 984-2403, email newtons@dfo-mpo.gc.ca

ACRONYMS

BSIMPI	Beaufort Sea Integrated Management Planning Initiative	MEQ	Marine Environmental Quality
CCG	Canadian Coast Guard, DFO	MKO	Manitoba Keewatinowi Okimakanak
CSSP	Canadian Shellfish Sanitation	MPA	Marine Protected Area (DFO)
CDDI	Program	NCP	Northern Contaminants
CCIARN	Climate Change Initiatives and Alternatives Research Network		Program
CG&T	Community Government and	NDC	Nunavut Development Corporation
cowi	Transportation	NIRB	Nunavut Impact Review Board
CFIA	Canadian Food Inspection	NMC	Nunavut Marine Council
	Agency	NMCA	National Marine Conservation
CHS	Canadian Hydrographic Services, DFO	NPA	Area (PC) National Programme of Action
CMAC	Canadian Marine Advisory Council	NFA	for the protection of the marine environment from land-based
COS	Canada's Oceans Strategy		activities
CWS	Canadian Wildlife Service	NPC	Nunavut Planning Commission
CG&T	Community Government and	NRCAN	Natural Resources Canada
	Transportation	NRI	Nunavut Research Institute
DFO	Department of Fisheries and Oceans	NMC	Nunavut Marine Council
DIAND		NPW&GS	Nunavut Public Works and
DIAND	Department of Indian Affairs and Northern Development		Government Services
DSD	Department of Sustainable	NWA	National Wildlife Area
	Development	NWB	Nunavut Water Board
EC	Environment Canada	NWMB	Nunavut Wildlife Management Board
EMAN	Ecological Monitoring and	NWT	Northwest Territories
EL CO.	Assessment Network	NTI	Nunavut Tunngavik Inc.
FLCN	Fox Lake Cree Nation	PC	Parks Canada
GPA	Global Programme of Action for the protection of the marine	SEC	Sanikiluaq Environmental
	environment from land-based		Committee
	activities	SSHRC	Social Sciences and Humanities
GN	Government of Nunavut		Research Council
HBOWG	Hudson Bay Ocean Working	TC	Transport Canada
	Group	TK	Traditional Knowledge
HC	Health Canada	WG	Working Group
IM	Integrated Management	YF FN	York Factory First Nation
IQ	Inuit Qaujimajatuqangit		
KIA	Kivalliq Inuit Association		
KWB	Kivalliq Wildlife Board		
MB	Manitoba		

SEPTEMBER 9, 2003

Community Reception and Arctic Fashion Show

Siniktarvik Hotel

On our first night in Rankin Inlet, the Hudson Bay Ocean Working Group (HBOWG) together with Nunavut Sustainable Development hosted a community reception to discuss planning for protected areas in Hudson Bay. Brock Junkin (HBOWG Chair) got things started by introducing the HBOWG and welcoming the large audience (approx. 150) to this special event. Helen Fast explained how our Working Group is working together to plan for a healthy Hudson Bay.

Following that, Randy Miller, a Rankin resident, presented a slide show demonstrating the incredible beauty and diversity of the Kivalliq Region. However, the highlight of the evening was most certainly the Arctic Fashion Show, featuring beautiful seal-skin designs modeled by local Arviat youth. We would like to thank Nunavut Sustainable Development and the community of Rankin Inlet for their wonderful hospitality.

SEPTEMBER 10 & 11, 2003

- 1. Welcome Brock Junkin
- 2. Opening prayer Flora Beardy
- 3. Review agenda
 - The draft agenda was approved as circulated.
- HBOWG Video
 - Steve Newton showed a 15 minute highlight video from our last meeting in Arviat, Nunavut.
- 5. Review minutes, action items from March 4-6 meeting
 - Minutes were approved by the HBOWG.
- 6. Planning for protected areas in Hudson Bay: It is our practice to have a theme for each of our HBOWG meetings and to involve interested parties in our integrated management planning. A variety of interesting ideas and perspectives were presented by our HBOWG members over the course of this meeting. Summaries of their presentations can be found in Appendix 1.

Hudson Bay Update – Miriam Fleming

- Miriam updated our HBOWG on the following:
 - Nunavut Hudson Bay Inter-Agency Working Group: This is a sister working group to the HBOWG established to study and report on issues and implications of developments on Hudson Bay and James Bay in a focused way to ensure concerns of the Sanikiluaq community, Nunavut Inuit and Nunavut Government are addressed.
 - Indigenous Knowledge Guidelines: A set of guidelines for meaningful inclusion of indigenous knowledge in activities and planning efforts of the HBOWG was approved.

- A Systems Approach to Protected Area Planning in Hudson Bay: Miriam discussed the feasibility of using a systems approach to protected area planning in Hudson Bay

Connections to the Land: Health and Resilience in Arviat, Nunavut - Sherrie Blakney

• With the help of the HBOWG, Sherrie is conducting her PhD research on Inuit connections to the land in Arviat, Nunavut. Her specific objectives are to: 1) understand Inuit constructions of health, risk and natural environment; 2) document Inuit Qaujimajatuqangit (IQ); 3) assess cultural resilience in the midst of environmental change; and 4) to identify and assess the ability of cross-scale institutions (levels of government and non-government institutions) for nurturing skills, capacity building and enabling local communities to adapt, regulate and manage their resources in a changing environment.

Hydro Electric Development and Hudson Bay - Roy Bukowsky and Don MacDonell

 About 99% per cent of the electricity generated in Manitoba is through water energy from the Winnipeg River (approximately 100 kilometers east of Winnipeg), Saskatchewan River (at Grand Rapids on Lake Winnipeg), and Nelson and Churchill Rivers which flow directly in to western Hudson Bay. This presentation summarized the opportunities and implications of Manitoba Hydro's past, present and future development in the Hudson Bay drainage basin.

Inuit Impact and Benefit Agreements (IIBA) - Paul Fraser

 Paul discussed the role of INAC in the Nunavut Land Claim Agreement and described the potential role of IIBA in planning for protected areas in Hudson Bay.

Why is York Factory Important to York Factory Cree? - Flora Beardy

 Growing up in York Factory, Flora Beardy developed an intimate knowledge of the Hudson Bay coast and the importance of the area to the Cree peoples. This presentation described that rich history and highlighted some of the new research projects that the York Factory First Nation is undertaking to better understand and document traditional knowledge.

Protected Area Planning in the Inuvialuit Settlement Region: An Overview – Bert Spek

• Bert gave an overview of the process that is underway in the Western Arctic to create a Marine Protected Area under Canada's *Oceans Act*. His presentation focused on the steps involved and some of the lessons learned that could have application to Hudson Bay in the future.

A Review of Protected Areas in the Hudson Bay Region - Mike Setterington

• There is a finite amount of time to plan for protected areas in Hudson and James Bays, because human and natural pressures are increasing and negatively impacting some species. This presentation examined some of those pressures and described the protection measures of primarily terrestrial "conservation" areas in Nunavut with a focus on those areas in the Hudson and James Bay regions.

Manitoba's Perspective on Marine Protected Areas – Helios Hernandez

• The Province of Manitoba has a variety of ways to protect areas along the Hudson Bay coast and throughout the rest of the province. This presentation summarized these mechanisms and discussed how we could work together in the future.

National Marine Conservation Areas (NMCAs) – Vicki Sahanatien

• NMCAs are protected areas owned and managed by the Parks Canada Agency, which aim to represent the diversity of Canada's marine ecosystems and maintain healthy marine ecosystems.

Marine Environmental Quality in Hudson Bay - Steve Newton

• Marine Environmental Quality (MEQ) is a statement of the health of the marine ecosystem, all the parts and how they are functioning. As a program under the Oceans Act, MEQ can help us plan for protected areas in Hudson Bay. We are planning to host an MEQ Focus Group in January 2004 to develop Objectives for a healthy Hudson Bay.

A Place for Traditional Ecological Knowledge in Resource Management: A Focus on Northern National Parks – Micheline Manseau

• In referring to the work of Quttinirpaaq National Park (northern Ellesmere Island) and Wapusk National Park (Hudson Bay), Micheline discussed the importance of TEK in resource management. Both parks are under cooperative management agreements.

Indigenous Knowledge Holders' Association (IKHA) – David Alagalak

• David spoke about the importance of involving aboriginal people in the identification of sensitive areas in Hudson Bay and the creation of the IKHA to collect and document the indigenous knowledge of Hudson Bay.

Ringed Seal Recruitment in Western Hudson Bay – Steve Ferguson

• Climate warming is expected to have a major impact on the amount of sea ice in the Hudson Bay region within 50-100 years. Steve is working collaboratively with Hunters and Trappers Organizations to study the movements and behavioural impacts of climate change induced sea ice reduction on ringed seals in western Hudson Bay.

Vegetation Mapping in the Kivalliq - Brock Junkin

- Nunavut Sustainable Development has undertaken a study to examine the
 relationship between vegetation classes and wildlife. Brock talked about how this
 information is an essential tool for wildlife managers to assess the impacts of
 cumulative land use on wildlife species through the modification and/or
 destruction of their habitat.
- 7. On our second evening in Rankin Inlet, NSD invited us on a tour of the Ijiraliq (Meliadine) River Territorial Park. Ijiraliq is located about 10 km northwest of Rankin Inlet, featuring spectacular views of the Kivalliq region and archaeological sites dating back to Dorset, Pre-Dorset and Thule cultures. Community residents treated us to displays of drum dancing, throat singing and delicious blueberry bannock.
- 8. Discussion groups: All those attending were asked to participate in one of three discussion groups.
 - **A. Planning for indigenous knowledge:** We decided to proceed with a proposal to form an Indigenous Knowledge Holders' Association that will be independent of the federal government. This Association will provide Inuit Qauyimayatuqangit expertise in the understanding and decision-making processes of environmental and

wildlife management. It will also provide a point of contact and establish a community network of indigenous knowledge holders on the local environment of the Kivalliq Region.

Next Steps

- 1. Complete Indigenous Knowledge Holders Association Proposal (Janet Akat and David Alagalak).
- 2. Submit proposal for funding to the Kivalliq Partners and Development (Janet Akat).
- **B. Planning for large scale projects:** Communities are interested in developing sustainable economic development in the Kivalliq Region, however they do not want to compromise wildlife as a result.

Some of the economic possibilities in the Hudson Bay region include: commercial fisheries (i.e. turbot, char, cod); oil and gas (i.e. Coral Harbour has potential); ocean related tourism (i.e. cruise ships to the Arctic); expansion of grain export through the Port of Churchill; mining in the Kivalliq and Melville Peninsula; Kitikmeot Road; airships to the Arctic; hydro in Nunavut; and a road to Nunavut.

Next Steps

- 1. Compile and prioritize a list of economic development opportunities in Hudson Bay (Steve Newton).
- 2. Catalogue this economic data in an electronic database.
- 3. Review the Hudson Bay Ecosystem Overview.
- 4. Host an economic development workshop.
- **C. Planning for protected areas:** The Hudson Bay Ecosystem Overview and the Traditional Knowledge and Management Systems study will play an important role in planning for protected areas in Hudson Bay by providing important baseline information. It is important that we (DFO, PC, EC, GN, etc) work together in Hudson Bay on this important initiative.

Next Steps

- 1. Review the content of the Hudson Bay Ecosystem Overview and TEKMS reports
- 2. Use a gap analysis or bioregional assessment to identify Hudson Bay areas of interest within the Ecosystem Overview and TEKMS reports.
- 3. Develop a Protected Areas Strategy for Hudson Bay.
- 4. Consult with communities and stakeholders.
- 9. Next meeting: Research in Hudson Bay Steve Newton
 - We agreed that our next HBOWG will take place in Winnipeg on March 2-4, 2004 with the theme of "Research in Hudson Bay". This will be a good opportunity for Hudson Bay researchers to come together and discuss the health and future of this important ecosystem.
- 10. Closing prayer Marion Beardy
- 11. Adjourn

Appendix 1:

Presentation Summaries

<u>Tc</u>	<u>opic</u>	Page#
1.	Hudson Bay Update – Miriam Fleming	8
2.	Connections to the Land:	11
	Health and Resilience in Arviat, Nunavut - Sherrie Blakney	
3.	Hydro Electric Development and Hudson Bay	13
	- Roy Bukowsky and Don MacDonell	
4.	Inuit Impact and Benefit Agreements - Paul Fraser	15
5.	Why is York Factory Important to York Factory Cree? - Flora Beardy	18
6.	Protected Area Planning in the Inuvialuit Settlement Region:	22
	An Overview – Bert Spek	
7.	A Review of Protected Areas in the Hudson Bay Region – Mike Setterington	24
8.	Manitoba's Perspective on Marine Protected Areas – Helios Hernandez	26
9.	National Marine Conservation Areas – Vicki Sahanatien	30
10.	Marine Environmental Quality in Hudson Bay – Steve Newton	33
11.	A Place for Traditional Ecological Knowledge in	34
	Resource Management: A Focus on Northern National Parks – Micheline Manseau	
12.	Indigenous Knowledge Holders' Association - David Alagalak	36
13.	Ringed Seal Recruitment in Western Hudson Bay – Steve Ferguson	37
14.	Vegetation Mapping in the Kivalliq – Brock Junkin	38

Hudson Bay Update

Presenters: Miriam Fleming
Date: Sept 10, 2003
Location: Rankin Inlet, NU

Nunavut Hudson Bay Inter-Agency Working Group

A Nunavut Hudson Bay Inter-Agency Working Group has been created by the Mayor of Sanikiluaq, CEO of Nunavut Tunngavik Incorporated and Deputy Ministers of three Government of Nunavut departments: Intergovernmental Affairs, Sustainable Development and Community Government and Transportation. Qikiqtani Inuit Association, Kivalliq Inuit Association and the Hudson Bay Ocean Working Group will be invited to join this new working group whose Secretariat is located in Sanikiluaq for 2003-05.

The purpose of the working group is to study and report on issues and implications of developments on Hudson Bay and James Bay in a coordinated, efficient and focused manner to ensure concerns of the Sanikiluaq community, Nunavut Inuit and Nunavut Government are addressed.

A joint federal-provincial environmental review assessment is underway for the Eastmain-1-A-Rupert diversion hydroelectric project in James Bay Quebec. The Environment Committee of the Municipality of Sanikiluaq received public participant funding to comment on draft directives to the Proponent, which focused on transboundary issues and the need to identify, assess and monitor downstream effects on the coastal and off-shore marine environment. *Nunatsiaq News* reports Sanikiluaq's concerns were not incorporated into the final directives to the Proponent.

In June, the Premier of Nunavut and Mayor of Sanikiluaq signed a Memorandum of Understanding for the Government of Nunavut and Municipality of Sanikiluaq to work together on understanding and protecting Hudson Bay due to the importance of marine 'country foods' to the people of Sanikiluaq and Nunavut.

Indigenous Knowledge Guidelines for the HBOWG

A set of guidelines for meaningful inclusion of indigenous knowledge in activities and planning efforts of the HBOWG has been prepared for approval by the working group.

The guidelines were developed on the basis of a preliminary framework reviewed by the working group at the March 2003 meeting. In June, a Traditional Knowledge Focus Group meeting was hosted by DFO in Winnipeg to discuss issues related to sharing and applying traditional knowledge, and to receive input and feedback for drafting the guidelines.

Working group members will review the Indigenous Knowledge Guidelines and submit comments to Steve Newton prior to the next meeting. The Chair will table the Guidelines at the next meeting for approval.

A Systems Approach to Protected Area Planning in Hudson Bay

The intent of the presentation is to encourage HBOWG members to consider the need to develop a system for protecting marine sensitive areas in Hudson Bay. Such a system would need to meet international standards and criteria, be integrated in nature and coordinated in approach. It would also require recognizing the Hudson Bay as a valuable ecological system worthy of protection, and familiarity with the Hudson Bay sea/landscape.

A system was defined as "an interconnected network of parts" in which the parts were identified as the different types of protected areas and the interconnections as the strategies, policies, programmes and projects for (i) designing, establishing and managing the system and (ii) strengthening ecological, cultural and socio-economic links between individual sites.

The aim in establishing a marine sensitive protected area system is to conserve and protect systematically the variety of marine life, and its associated habitats, processes and human relations, in Hudson Bay by protecting the sea/ landscape for its ecology, indigenous peoples and local communities. Specific objectives include:

- Developing a representative system of marine sensitive protected areas
- Managing the network of marine sensitive protected areas
- Integrating the marine sensitive protected areas into regional and community development plans within the six drainage systems flowing into Hudson Bay

A three-part process was highlighted for purposes of designing and developing a marine sensitive protected area (MSPA) system.

- 1. Identifying sensitive marine areas by conducting bioregional assessments of the Hudson Bay and James Bay Marine Regions followed up with site assessments for selecting particular areas.
- 2. Selecting and establishing individual MSPAs in accordance with federal legislation, territorial/provincial legislation, municipal by-laws and Inuit and First Nation land use policies.
- 3. Monitoring and managing MSPAs in accordance with ecosystem objectives, management objectives, wildlife needs and cultural needs.

Potential benefits in developing and managing a marine sensitive protected area system include conservation and protection of critical ecological processes, key habitats, Inuit and Cree food webs, culturally significant areas and traditional indigenous values towards wildlife. If done right, a system of MSPAs could also stimulate public and private investment in the Hudson Bay bioregion, increase economic inputs and outputs and generate income earning opportunities. To achieve these benefits, the system will need to be built on the following pillars:

- Recognition of Hudson Bay as worthy of protection
- Respect for wildlife and the natural world
- Stakeholder equality
- Teamwork
- Inter and intra-agency co-operation
- Public awareness and education
- Planning and decision-making transparency

Connections to the Land: Health and Resilience in Arviat, Nunavut

Presenters: Sherrie Blakney
Date: Sept 10, 2003
Location: Rankin Inlet, NU

Within the HBOWG concerns have been expressed concerning the effects of climate and economic development in the coastal region of the Hudson Bay. In meetings, the HBOWG compiled a list of research priorities including: the monitoring country food quality; assessing changes in the ice and snow distribution; and reviewing and compiling traditional knowledge. From these concerns and priorities a research project has been developed in consultation with the HBOWG and the people of Arviat NU.

Using the theoretical concepts of: ecosystem resilience (Gunderson and Holling 2002); social construction of heath and risk (Lupton 1995, 1999); aboriginal construction of health (Adelson 2000); traditional ecological knowledge (Berkes 1999), the objectives of this project are to 1) understand Inuit constructions of health, risk and natural environment; 2) document Inuit Qaujimajatuqangit (IQ) and resource management practices of the different Inuit dialect groups; 3) assess cultural resilience in midst of environmental change; 4) identify and assess ability of cross-scale institutions (levels of government and non-government institutions) for nurturing skills, capacity building and enabling local communities to adapt, regulate and manage their resources in a changing environment.

The health of linked socio-ecological systems may be approached by focusing upon an area where the two systems converge -- Inuit Qaujimajatuqangit (Inuit traditional knowledge) – the cultural capital by which Inuit convert natural capital into resources. IQ provides a qualitative model of health indicators and trends over time and also contains strategies for softening adverse effects resulting from climate change and development. For example, within the Inuvialuit community of Sachs Harbour, strategies for dealing with climate change include 1) short-term coping mechanisms (such as modify timing of harvest activities, switching locations, changing hunting methods, switching species, minimizing risk); 2) long-term adaptations (flexibility within seasonal cycles, having a detailed knowledge skills and ecosystem diversity, sharing through family and social networks, trade with other communities); and 3) new adaptive strategies through the development of cross-scale institutional linkages (Berkes, Jolly 1998).

The research will take place in and around Arviat, NU, a community containing several dialect groups who are involved in the traditional coastal and inland economy and have developed very diverse IQ and resource harvesting strategies. Arviat representatives are actively involved with HBOWG and the community has experience working with researchers. Community collaboration and participation has been sought in shaping and defining the research question through consultations with members of the HBOWG, KWB, HTO, Arviat Hamlet Council and Nunavut Planning Commission and Department of Education. A community advisor will assist with adapting the research to the local situation and in the identification of local IQ and resource experts. A community assistant will also be hired to assist with interviews, translation and transcription.

Research methods will involve participant observation where for 4 six-week periods; I will live with an Inuit family in a total emersion situation and participate in the local economy (fishing, hunting trapping, food preparation, resource management practices, traditional skills and crafts).

Qualitative, open-ended interviews will be conducted with elders and local resource specialists. Life histories of the elders will be documented in terms of IQ practices, beliefs and stories, and for tracking resource-related changes and innovation. Resource use mapping will be done to fill documentation gaps in the temporal and spatial movements of terrestrial and marine animals and waterfowl. Also documented will be place names, trails, campsites in Arviat area.

Major outcomes of the project will include a PhD thesis, establishment and development of a web-based central IQ databank and the 'Indigenous Knowledge Holders Association'. Other outcomes will include a community presentation of research results and publication of research in academic journals. Copies of PhD thesis, all publications and unedited interview tapes will be stored in a public facility within the community of Arviat.

Comments regarding this proposed project are welcome. Email: umblakne@cc.umanitoba.ca

References

Adelson, Naomi 2000. "Being Alive Well": Health and the Politics of Cree Well-Being. Toronto: University of Toronto Press.

Berkes, Fikret 2002. "Cross-Scale Institutional Linkages" in *The Drama of the Commons*. E. Ostrom, T. Dietz, N. Dolsak, P. Stern, S. Stonich, E. Weber, eds. Washington: National Academy Press.

Berkes, Fikret. 1999. Sacred Ecology: Traditional Ecological Knowledge and Resource Management. Philadelphia: Taylor & Francis.

Berkes, Fikret and Dyanna Jolly. 2001. "Adapting to Climate change: Social-Ecological Resilience in a Canadian Western Arctic Community" *Conservation Ecology*. www.consecol.org/vol5/iss2/art18/

Holling, C.S. and Lance Gunderson. 2002. "Resilience and Adaptive Cycles" in *Panarchy: Understanding Transformations in Human and Natural Systems*. Washington: Island Press. Lupton, Deborah. 1999. *Risk* New York: Routledge.

Lupton, Deborah. 1995. *The Imperative of Health: Public Health and the Regulated Body*. London: Sage Publications.

Hydro Electric Development and Hudson Bay

Presenters: Roy Bukowsky and Don MacDonell

Date: Sept 10, 2003 **Location:** Rankin Inlet, NU

Introduction to Manitoba Hydro

Manitoba Hydro is a Crown Corporation owned by the Government of Manitoba. The electricity generated and distributed by Manitoba Hydro is produced by fourteen (14) hydroelectric stations, two (2) thermal stations and four (4) diesel sites. The affairs of Manitoba Hydro are administered by a Board appointed by the provincial cabinet. The Manitoba Hydro-Electric Board reports to the minister responsible for The Manitoba Hydro Act, who in turn, reports to the Manitoba Legislative Assembly. In this manner, Manitoba Hydro is responsible to the people of the province through their elected representatives.

About 99% per cent of the electricity generated in Manitoba is through self-renewing water energy from the Winnipeg River (approximately 100 kilometers east of Winnipeg), Saskatchewan River (at Grand Rapids on Lake Winnipeg), and Nelson and Churchill Rivers which flow directly in to western Hudson Bay. *The attached illustration provides a description of existing and potential hydroelectric power sources in Manitoba*.

Manitoba Hydro's Interest in Hudson Bay

The Nelson River drainage basin covers an area of over one million square kilometers (attached watershed map). The water draining this vast area eventually empties into Lake Winnipeg, the source of the Nelson. Manitoba Hydro's generating stations located on the Nelson River are: Jenpeg, Kelsey, Kettle, Long Spruce, and Limestone which is the furthest downstream development approximately 100 kilometers from Hudson Bay.

The basin drained by the Churchill River has an area of approximately 283,350 square kilometers. It lies to the north of the basins of the Nelson and Saskatchewan Rivers, with its headwaters in east-central Alberta (attached watershed map).

In 1966, following joint federal-provincial studies, Manitoba Hydro commenced activities to divert the Churchill River as part of an overall plan for northern development. The diversion plan focused on Southern Indian Lake, which is a widening in the Churchill River. Part of the water flowing through the lake was diverted into the Burntwood/Nelson River system to be used to generate electricity at stations on the Nelson River. The Diversion was in operation by 1977. Prior to the Diversion, the natural flow of the Churchill River into Hudson Bay averaged 1,274 m³/s. With the CRD in operation the Churchill River's flow was reduced to an average of 510m³/s.

Cumulative effects of hydroelectric development on Hudson Bay are not known. The Government of Manitoba initiated studies in the 1970s in response to concerns over hydroelectric development and its impact on aquatic ecosystems. With the construction of the Limestone Generating Station (in the 1970s and 1980s), studies intensified

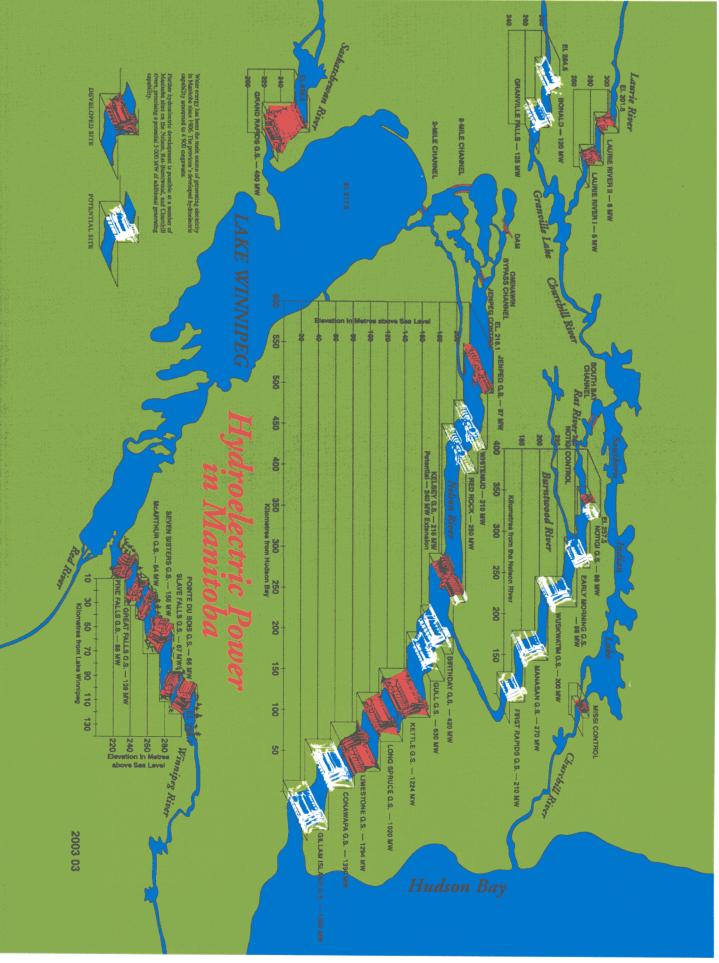
resulting in a 10 year monitoring program on the Lower Nelson River, commencing in 1989. Over 75 technical reports have been produced to date documenting results of the studies. Studies focused on: the fore bays (reservoirs), mainstem, tributaries, and Nelson River estuary, as well as brook trout and sturgeon (heritage species in Manitoba)Indications are that although biophysical changes continue to occur in the generating station forebays, there have been no notable changes downstream approaching Hudson Bay. Discoveries relevant to Hudson Bay include previously unknown movements of anadromous fish species. A four-year monitoring program focusing on zooplankton was initiated in the Nelson River estuary in 1996 to provide a baseline against which future changes can be measured.

The Lower Churchill River Water Level Enhancement Weir Project was initiated in 1994 to increase water levels on the lower Churchill River and mitigate effects of the CRD. Monitoring programs associated with the project have yielded nearly 50 reports documenting the pre- and post-project environmental conditions.

Manitoba Hydro continues to support seal, beluga and polar bear research which contribute to understanding the effects of global warming and hydro development on marine mammal populations in Hudson Bay.

Manitoba Hydro's Future Interest in Hudson Bay

Manitoba Hydro is committed to sustainable development by incorporating Traditional Aboriginal Knowledge and recognized western scientific analysis methodologies during planning, construction, operation, maintenance and decommissioning activities at corporate facilities. Currently Manitoba Hydro is considering new hydroelectric projects in northern Manitoba to take advantage of forecast export market opportunities. Any one of these projects may advance the next generation source to late 2009 - the earliest date for any new hydroelectric generation. The potential environmental impacts of new generation facilities are presently under investigation. Cumulative Effects Assessment is an integral part of Environmental Impact Statements as well as federal and provincial regulatory compliance requirements. Manitoba Hydro will continue to monitor and exchange information with other utilities in provincial jurisdictions adjacent to Hudson Bay.



Inuit Impact and Benefit Agreements (IIBAs)

Presenter: Paul F. Fraser
Date: Sept 10, 2003
Location: Rankin Inlet, NU

Introduction

This presentation covered the following subjects:

- INAC'S role in Nunavut related to the Nunavut Land Claims Agreement (NLCA),
- Explaining the purpose of (IIBAs) as they relate to the interests of (HBOWG), and
- Recent activities.

The oral presentation followed the following format and touched on a series of points related to:

- The Strategic direction of the department (INAC), specifically
 - Our Minister's priorities,
 - Departmental priorities, and
 - The INAC-Nunavut Regional Office (NRO) strategic plan.
- INAC's role in the implementation of the NLCA,
- Primary functions of the NRO
- Primary functions of the Implementation Branch at our departmental headquarters,
- Review of IIBA's as referenced in the NLCA
- Q & A's

The Strategic Direction of the Department (INAC)

Our Minister's message in the 2003/04 Report on Planning and Priorities notes that: "In the North, we will continue to be active partners for change" ... and that we will work toward ... "increased collaboration with Inuit".

- The key priorities for our department are:
 - Strong communities, people, and economies;
 - Renewed partnerships; and
 - Effective management of federal interests in the north

The INAC-NRO Strategic Plan

The ultimate goal is: "To work in partnership to help improve the quality of life of Nunavummiut" and to that end the strategies for interacting with external parties include:

- Taking responsibility by demonstrating leadership;
- Embracing change...by adhering to the principles of sustainable development;
- Working collaboratively by increasing inter-organizational file management and promoting collective decision-making;
- Interacting with stakeholders (e.g. HBOWG); and
- Improving external relationships.

INAC's role in the Implementation of the NLCA

Officials in INAC negotiated the NLCA on behalf of Canada and shepherded (or helped guide) its approval by the Government of Canada:

- NLCA requires the creation of the Nunavut Implementation Panel to oversee and provide direction on the implementation of the agreement
- the representative of Canada on the Panel is a senior official of INAC
- support for the Panel member is provided by the Implementation Branch and the Nunavut Regional Office of INAC

Primary Functions of the NRO

The NRO provides a range of services to our clients in Nunavut including:

- A group of land related operations such as land administration and inspections pertaining to water resources, mineral resources and environmental management:
- Enforcing those laws dealing with land and water management;
- Economic development funding via regional agencies principally Designated Inuit Organizations;
- Training and development funding, via regional agencies (DIOs);
- Managing Ministerial Appointments to the Institutions of Public Government, excluding the Nunavut Wildlife Management Board;
- Presenting the Nunavut perspective at the Nunavut Implementation Panel meetings; and
- Supporting HQ based functions of the Department, including claims implementation, through the development of local relationships in Nunavut

Primary Functions of the Implementation Branch at our Departmental Headquarters

- insuring that Canada meets its obligations under the NLCA
- reporting to the Nunavut Implementation Panel on the status of Canada's obligations under the NLCA
- managing the funding for the Institutions of Public Government (IPGs)
- managing Order in Council appointments to the Nunavut Wildlife Management Board;
- printing and tabling the Panel's annual report in Parliament
- managing access to funding for implementation, including for IIBAs

Review of IIBA's as referenced in the NLCA

IIBA's are distinctly referenced in three (3) places in the NLCA, including Articles 8 (Parks), 9 (Conservation Areas) and 26 (Resource Development). This presentation concentrates on Article 9.

In the NLCA Conservation Areas include: any Conservation Area in existence at the date of ratification of the NLCA as well as 14 other areas that includes, as a sampling

- Migratory Bird Sanctuaries;
- Wildlife Sanctuaries
- Critical Wildlife Areas

- Wetlands of International Importance for Waterfowl;
- Other area of particular significance for ecological, cultural, archaeological, research and similar reasons (See NLCA for complete list)

The NLCA requires the negotiation of an IIBA for Conservation Areas unless the "Conservation Area does not raise any matter that would have a detrimental impact on Inuit or that could reasonably confer a benefit on Inuit"

Points Worth Noting:

- the Department responsible for establishing the Conservation Area, in concert with other affected federal government agencies, shall negotiate with a DIO to conclude an IIBA
- if the parties can not reach a negotiated agreement, they shall select a conciliator who shall report to the Minister

The matters for negotiation and inclusion in an IIBA are:

- a joint planning and management committee may be established for a Conservation Area at the request of government or the DIO (Unlike Parks Article 8 this is not contingent upon an IIBA being negotiated)
- every IIBA shall be renegotiated at least every seven (7) years
- funding for the IIBA and the management committees is obtained through Treasury Board submissions which require the concurrence of the Minister of INAC after review by Implementation Branch (Reference List Found in Schedule 8.3 Page 76 of NLCA)

Recent Activities

- two IIBAs totaling \$8.5 million have been approved to date for four parks, an
- IIBA is being negotiated by Environment Canada for their Conservation Areas and discussions are being held regarding an IIBA for Heritage Rivers

Final Comment:

The writer/presenter wishes to express his sincere appreciation to the HBOWG for allowing him the opportunity to attend and to present at their meeting.

Why is York Factory Important to York Factory Cree?

Presenters: Flora Beardy
Date: Sept 10, 2003
Location: Rankin Inlet, NU

It's our home and a home is important to everyone...

Kischiwaskahegan or "the great house" is one of the oldest Hudson's Bay Company posts in North America. It's situated near the mouth of the Hayes River, on a flat marshy peninsula on the western shore of Hudson Bay. This was the site of some of the earliest encounters between Aboriginal people and European traders. York Fort was established in 1684 by the HBC and soon attracted the trade of Cree, Ojibwa and Assiniboine peoples, and occasionally a few other groups who made the long journey to the Bay from the interior. Despite stiff competition from the French and New England traders, the English company managed to consolidate its economic superiority in the York region, and with the signing of the Treaty of Utrecht in 1713 it was awarded ownership of virtually all of the Bayside trading posts, including York Fort.

With the establishments of posts inland from the Bay after 1774 York assumed a new role as storage, manufacturing and distribution centre in the HBC's Northern Department. The post became the center of a vast, tightly scheduled system of supply that began with the fall arrival of the supply shops from England. Two decades, however, the post began it steady decline. Goods were shipped by railway northwest to the United States, steamboats and red river carts, on a southern route, to Lower Fort Garry. By the 1850's York Factory had reached its peak with over fifty-one laborers, trades people, clerks and officers, many of whom were of Aboriginal ancestry. By 1872 York was outfitting only those posts located north and east of Norway House, including Oxford House, Nelson House, Server, Trout Lake, Split Lake and Churchill. The Euro-Canadian servants at York were reduced and replaced by full-time and seasonal laborers. Through this transformation from trading post, to entrepot and distribution centre, and back to regional trading post, York Factory remained an important part of the lives of the Cree Peoples in Northern Manitoba. Economic and social change, from alternation in material culture and patterns of resource extraction, to changes in family and kin networks, characterized life among both the York Factory Home-guard and the upland groups of the Hayes and Nelson Rivers, who regularly traded at the post.

The Aboriginal Peoples of the York Factory region are usually identified as belonging to a larger group known as the Swampy Cree. The traditional territories of the Western Swampy Cree (or West Main Cree) cover the low-lying poorly drained coasts of James and Hudson Bays from the Moose River in northeastern Ontario tot eh Churchill River in northern Manitoba. Today Maskekowininuwak (People of the Swamp) is the self-designation used by Cree speakers on the bay's west coast. The Swampy Cree of the York Factory region traditionally hunted, trapped and traveled in search of resources in a largely seasonal round of existence. The areas is roughly bordered by Churchill at its northern extremity, Split Lake and Oxford House to the southwest and Fort Severn in the

southeast. The Hayes and the Nelson Rivers, along with their many tributaries, served until the arrival of the railway in the late 1920's, as the main transportation corridors for the movement of furs, supplies and people throughout the region and inland. York Factory remained an important center for the people of the region in the late nineteenth and early twentieth centuries. It served as a market for their pelts and country provisions, a source of part time labour, a place to acquire necessary supplies, imported foodstuffs, treaty payments, and relief in times of scarcity, the location for religious and educational services or simply as a semi-settled community and gathering place.

After securing supplies and taking debt from the factory in the early fall, Native trappers and their families moved out to their hunting territories. Prior to the introduction of registered trap lines in the 1940's these territories were informally regulated by custom and tradition and were organized, for the most part, around extended family units. Small settlements and camps in the general vicinity were home to small groups of Cree families over the winter months. Across from York Factory was seepastik or Ten shilling, five miles upriver on the Hayes was Wantawak or Crooked Bank. Across the Nelson River is Powaynagon nakow seepee or Port Nelson.

During the early winter, families hunted and trapped, bringing their furs to York at Christmas and returned to their hunting grounds after the New Year. Christmas services and New Year celebrations were held at this time. If any children were born on the trap line they would be baptized. Some groups sometimes returned for Easter and then leave for spring trapping. When the rivers began to break up usually in May, the York people retuned to the post to trade their winter catch of furs and settle their debts. Summers were generally spent in the vicinity of York where men served on York boat brigades fished and hunted for post provisions as well as subsistence needs of their families, traveled inland on wooding expeditions went whaling at the mouth of the Nelson River, or served as part time laborers at the factory.

Like the fall caribou hunt, the spring and fall goose hunts were an important part of like at Bayside posts such as York. Geese were a vital food source for post residents, both native and euro-Canadian, and the organized hunts were part of a seasonal cycle. Traditional goose hunting areas in the vicinity of York were at Marsh Point, Sam's Creek north of Port Nelson, and the marshy area along the Hudson Bay coast east of York, at the mouth of the Machichi River. At the factory women and children were involved in provisioning and domestic activities such as gathering various edible plants and berries, collecting firewood, and performing domestic chores at the different post storage buildings and residences.

Cree women were a critical part of the bush economy as well during this period, and as they had done for centuries provided, through inter marriage with white traders, advantageous kinship and trading links and an important market for trade goods. Women were involved in a wide variety of activities related to both subsistence and commercial exchange. They slated and packed geese after the spring and fall hunts, prepared hides and pelts for exchange and traded the furs of rabbits and muskrats that they had trapped

over the winter months. Women also contributed to domestic food production by fishing, snaring, hunting and gathering.

Oral records provide a more complete picture of the role of women including their role as hunters and trappers. Amelia Saunders, originally from Fort Severn but lived at Kaskatamagan and York Factory remembers, "We even use to hunt for caribou too. We hunted a lot, just like the men. We were taught to do this as we were growing up" Another elder, Catherine Anderson, talks about hunting moose, ptarmigan and geese. Amy Hill describes her fur trapping activity. "I myself use to snare rabbits. My young child would be in the cradle and I'd carry the cradle on my back. This way I had the baby with me while I set rabbit snares. Early the next morning I'd go back and check the snares. Then I'd have to carry the rabbits along with my baby. This is what I did in order to survive to have food for the children".

There are more stories collected from the elders in the book, "Voices from Hudson Bay: Cree Stories from York Factory. During the summer of 1957 the Hudson's Bay Company made the decision to close York Factory. Some of the people had left to look for employment in other places but there were some that wanted to remain and continue living in their traditional territory but pressure from Indian Affairs and HBC convinced the people to move to the interior. Treaty Land entitlements, or reserved lands, which were originally promised to the York Factory Cree, as part of the 1910 treaty adhesion had never been granted. Elder Abel Chapman, "When they first started giving out money my father use to bring the treaty party to York....He used to mention the promises made to the Indians when the treaty was signed...The promise to provide fort the natives is in the treaty and signed. Promises to last as long as the grass grew, the rivers ran and the sun shone. This is the promise that was made. To an Indian this means forever."

The York Factory Cree were relocated 250 kilometers inland southwest of York. This was not a popular decision wit the people. The place was so far inland and unfamiliar. The elders speak of the hardships encountered during the relocation. They also speak about the loneliness for York, a home they shouldn't have left.

Today York Factory is a National Historic Site of Canada and each year some of the elders make it a point to go and visit and they still consider it their home.

York Factory Cree Nation has been involved in a variety of research initiatives:

- Mapping traditional hunting and trapping areas n YK areas. Elders were taken around by helicopter to identify these areas. This will continue as time and resources allow.
- Personal Mapping in the YL area. The elders, trappers and hunters are involved in this project with Future Development.
- Interviews: a proposal was submitted to MB Hydro to interview 20 elders from YFCN and collect as much information as possible on traditional activities and the relocation from York Factory to York Landing in 1957.
- Future Development team has been in negotiations with MB Hydro regarding the Keeyask/Gull Development.

- The elders are getting more and more involved at community meetings and will also be passing on their knowledge to the children at George Saunders Memorial
- Community discussions on the effects of the Kelsey dam. The impacts on animals as well as humans, looking at the dangers of winter travel due to fluctuation levels of water.
- Community discussions on the cumulative effects at the Nelson and Hayes Rivers estuaries if Conawapa is to be developed. There are already some indicators of sorts at Marsh Point. A study would have to be done to clarify this.
- Oral history projects area proposed to collect stories, legends and traditional knowledge. This will start ASAP while our elders are alive and well.
- Honekwe planning committee (IUN native studies advisory group) has submitted a proposal to establish an Aboriginal Oral History center in northern Manitoba. Thompson was chosen, a central area for the out-lying communities. The center will probably take a while but it's important that each community start collecting his or her stories now, for each elder we lose, we lose a part of our history. An alternate place will be found to house these stories for the time being.

Marine Protected Area Planning in the Inuvialuit Settlement Region: An Overview

Presenter: Bert Spek
Date: Sept 10, 2003
Location: Rankin Inlet, NU

A process is underway within the Inuvialuit Settlement Region to evaluate and assess the Zone 1a's of the Beaufort Sea Beluga Management Plan (BSBMP) as a potential Marine Protected Area under the Oceans Act. The need to consider providing MPA status for the Zone 1a's is the result of concerns by Inuvialuit that the BSBMP does not have the legal mechanism to enforce the guidelines of the BSBMP. To date the BSBMP has relied upon voluntary compliance. However extensive oil and gas activity in the vicinity of the Zone 1a has raised concerns that pressure to allow activities within the Zone 1a's could increase and eventually lead to some activities being permitted. This may result in negative impacts on beluga, beluga habitat and the harvesting of beluga.

A participatory partnership was initiated between the Inuvialuit, government, and industry. Known as the Beaufort Sea Integrated Management Planning Initiative this process is the umbrella under which MPA planning is taking place. The MPA planning and BSIMPI are in keeping with the spirit and terms of the Inuvialuit Final Agreement (IFA). Direction for BSIMPI is proceeding under the direction of a Senior Management Committee (SMC) comprised of:

- Fisheries Joint Management Committee (FJMC)
- Inuvialuit Game Council (IGC)
- Inuvialuit Regional Corporation (IRC)
- Fisheries and Oceans Canada (DFO)
- Canadian Association of Petroleum Producers (CAPP)

In addition to the SMC, a Working Group consisting of representatives from the same organizations as the SMC with the addition of a representative from Indian and Northern Affairs Canada carries out activities such as identifying issues, planning and community engagement. The Working Group is supported by a Secretariat comprised of DFO regional staff.

To date the WG has overseen the preparation of technical, ecological, socio-economic, and non-renewable resource assessments as well as an ecosystem overview, traditional ecological knowledge study (incorporated into the ecological assessment) and a multiple account evaluation. Critically important to the MPA planning process is the ongoing community consultation which has provided the necessary support to continue advancement towards designation as an MPA. The next steps involve the preparation of a Regulatory plan, Regulatory Impact Analysis Statement, Regulations and Management Plan

Valuable lessons learned to date from the MPA planning process include:

- As various demands on wildlife habitat increase, habitat mapping will allow managers to make confident predictions necessary to mitigate the impacts of land use within Nunavut.
- The requirement for a strong commitment & dedication from partner organizations & representatives
- The need for extensive consultation throughout the process with communities as well as government agencies and industry
- The need to stress MPA planning does not end with designation of the site. Management of the MPA is an ongoing process.
- A willingness of the participants to undergo a steep learning curve at the outset of the process.
- A requirement for considerable time & financial resources.
- The need to be proactive rather reactive whenever possible.

A Review of Protected Areas in the Hudson Bay Region

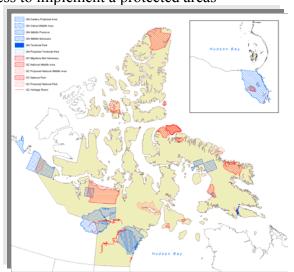
Presenter: Mike Setterington
Date: Sept 10, 2003
Location: Rankin Inlet, NU

The Nature Audit (Report No. 1 – 2003 by World Wildlife Fund Canada, Toronto) stated that the Canadian North is one of only a few areas in the world with opportunities to protect species and habitats in advance of major developments. However, there is a time-limited opportunity for protection in Hudson and James Bays as human pressures gradually increase and as some species are showing increased disruption from baseline conditions

This presentation summarized the protection measures of primarily terrestrial "conservation" areas in Nunavut with a focus on those areas in the Hudson and James Bay regions. The review was followed by an overview of protection tools available that have yet to be used in the Hudson Bay region, a process to implement a protected areas

strategy in Nunavut, and a summary of the need for protection in this terrestrial/marine ecosystem.

The legislated areas under territorial government jurisdiction include Critical Wildlife Areas, Wildlife Preserves, Game Sanctuaries, and Territorial Parks. The federal government legislated areas include Migratory Bird Sanctuaries, National Wildlife Areas (currently there are none in the Hudson Bay region), National Parks, and Heritage Rivers. Non-legislated areas under federal government jurisdiction include Caribou Protected Areas and Heritage Rivers. Other protection tools include ss 38 of the *NWT Wildlife Act* (i.e., can not create a significant disturbance to a significant number of animals), and the federal



Species at Risk Act. [Marine Conservation Areas (currently there are none in the Hudson Bay region) were discussed in a later presentation by Parks Canada.]

While these areas are traditionally labeled as "protected" areas, one questions the actual level of protection provided. Areas under territorial jurisdiction provide little protection for either wildlife or habitat. Critical Wildlife Areas are simply designated areas without enforceable protection measures. Wildlife Preserves and Game Sanctuaries limit hunting by non-aboriginals, but there are no restrictions to protect habitat. Territorial Parks to date have been established more as community economic development tools rather than purely for protection of ecological values. Sub-section 38 of the Wildlife Act has, to the knowledge of the author, been little used and would be difficult, if not impossible, to enforce

Federal conservation areas provide greater protection of wildlife and habitat resources. National Parks provide protection of the wildlife and habitat. Migratory Bird Sanctuaries protect the species, but not necessarily the habitat within the sanctuaries. National Wildlife Areas (NWAs) are a very flexible protection tool where different protection measures can be applied on an area-by area basis. Unfortunately there are no NWAs in Hudson or James Bay. Marine Protected Areas need to be developed in Hudson Bay before protection developments threaten specific areas. Heritage Rivers may or may not protection wildlife and habitat depending on the ecological values of the river systems, and the management plans that have yet to be developed for the three rivers identified in Nunavut. The Caribou Protected Areas and protection measures appear to be enforced through Inuit Organization Land Use permits, but federal and territorial governments have not supported regular surveys of the areas as were conducted through to the early 1990s. The Species At Risk Act (SARA) has some power to protect species at risk, but a broader range of protection measures are required to protect all species.

The new Nunavut Wildlife Act also has some very good tools for area protection, but currently that act is only in draft form, and much work will be required by the Government of Nunavut to define critical habitats, special management areas, and the protection measures that should be enforced in those areas. Other methods of protection such as the *Whitehorse Mining Initiative* or the completion of regional Land Use Plans should be approached as another method for protecting ecological resources in Hudson and James Bays.

Manitoba's Perspective on Marine Protected Areas

Presenters: Helios Hernandez
Date: Sept 10, 2003
Location: Rankin Inlet, NU

Manitoba's interest in participating in the Hudson Bay Ocean Working Group is twofold. First, Manitoba has an active Protected Areas Initiative that includes areas along Hudson Bay. Provincial jurisdiction extends to the Ordinary Low Water Mark along the coast. Most river estuaries are included within Manitoba by virtue of the point-to-point provisions of boundary delineation. One focus of Manitoba's participation on the Hudson Bay Ocean Working Group will be to develop mutually beneficial protected areas and management plans, especially for those portions of Hudson Bay bordering Manitoba.

Second, Manitoba has three large lakes (Winnipeg, Manitoba and Winnipegosis) where planning and management challenges are comparable to those of Hudson Bay. To date, several areas encompassing portions of the waters of these lakes have been designated, but work on developing appropriate management plans for these areas is in its infancy. The activities of the Hudson Bay Working Group on planning and management of Hudson Bay, in general, and marine protected, areas, in particular, should provide insights and approaches of use in our lakes.

Manitoba's Protected Areas Initiative

The goal of Manitoba's Protected Areas Initiative is to create a network of protected lands that represents the biological diversity across Manitoba's natural regions. In Manitoba, as a minimum, a protected area must be closed by legal means to logging, mining, hydroelectric development, or any other activity that significantly and adversely affects habitat. For the purposes of assessing adequacy and representation, all areas that meet this criterion are included in the network of protected areas, regardless of who owns or manages the area.

Existing permanently protected areas cover 4,259,997 ha, or 6.55% of Manitoba. They include 2 national parks (1,455,400 ha), 16 ecological reserves (60,425 ha), and all or parts of 25 provincial parks (2,612,812 ha), 43 wildlife management areas (122,960 ha) and 1 provincial forest (8400 ha). Also, all or parts of 24 park reserves provide interim protection to an additional 1,194,589 ha (1.84%) for varying periods of time. Private lands do not yet formally contribute, but ways are being explored to recognise the inclusion in the network of lands acquired by conservation agencies or where landowners have placed perpetual and legally binding protective Conservation Agreements on land titles.

Manitoba has been divided into 18 natural regions and sub-regions, each having a broad common climate and physiography that differentiates it from the others. Except for a few groups of organisms (such as mammals, birds and trees), knowledge of the distribution of all the plant and animal species that live in Manitoba is poorly known. Unlike plants and animals, however, soils and landforms are more stable over time, and endure. It is much

easier to define these somewhat more permanent *enduring features*, than it is to identify the complex biological diversity that occupies a given site over time as natural process occur. Capturing the full range of enduring features in large protected areas has been found to also capture the bulk of a natural region's biodiversity, and enduring features can act a surrogate for biodiversity. For these reasons, Manitoba has adopted *enduring features analysis* as the scientific basis for establishing and evaluating protected areas. Each natural region has been divided into smaller enduring feature units based on soils and landforms mapped at a scale of 1:1,000,000. Enduring features analysis is the process of identifying the different combinations of soils and landforms, and of determining if they are adequately represented in Manitoba's network of protected areas. To be considered complete, Manitoba's network of protected areas will have to contain adequate examples of all enduring features.

Ecological integrity and **adequacy of representation** take into account the likelihood of ecological processes allowing for recovery following a natural disturbance event (fire, disease/pest outbreak, flood, windstorm, etc.). Determining representation depends on the scale and size of the event, and the size and design of the protected area. This concept is analogous to the factors taken into account when engineers design a structure such as a floodway, or try to flood proof, earthquake proof, or hurricane proof buildings.

An area is considered to have *ecological integrity* when:

- the natural communities of plants, animals and other organisms it contains are intact,
- its natural processes are still operating, and
- there is high likelihood that the area will remain in this state for the foreseeable future.

Within a natural region, *representation* is a measure of the degree to which a protected areas network:

- includes examples of the characteristic enduring features of a region,
- reflects the proportion and spatial arrangement of features of a region,
- provides for genetic diversity, and
- sustains ecological integrity.

Adequate representation of an enduring feature requires having enough of the enduring feature included in protected areas such that its ecological integrity can be sustained over time. Since enduring features vary in size, configuration, and the number of times they repeat across the landscape, guidelines have been developed to help determine whether an enduring feature is adequately represented depending on its size. These guidelines consider edge effects, need for replicates and linkages to adjacent features. The impact of human activity is also considered.

Determining gaps in representation within a natural region begins by identifying all of the enduring features that characterise the region. The second step involves determining the extent to which these features are already captured in existing protected areas in the natural region. The level of representation of each enduring feature reflects differences in the proportion of each enduring feature that is captured, and the level of confidence that ecological integrity is likely to be maintained over time. New protected areas will have

to be established to capture those enduring features that are not yet considered adequately represented. Candidate areas identified to achieve this are called Areas of Special Interest (ASI). Wherever possible, ASIs are chosen to avoid or minimise resource allocation conflicts and to protect undeveloped areas of significant size. The establishment of new protected areas will take into account the need for ecologically meaningful boundaries such as watersheds, lakes, rivers, landforms, animal ranges and other features. These types of boundaries are important for the preservation of ecological integrity and natural processes.

While enduring features analysis is a regional (or coarse filter) approach, all available detailed (or fine filter) information is used to determine boundaries when candidates for protection are developed from an ASI. Fine filter data considered include known occurrences of rare or endangered plant and animal species or communities, areas of unusually high species diversity, extremely sensitive sites, and significant discrete wildlife resources or geological and physical features that affect biodiversity such as mineral licks, springs, waterfalls, etc. These occurrences can be identified from scientific surveys as well as from local and traditional knowledge. In most cases, ASI boundaries are flexible and can be changed to respond to additional new fine filter data. In a few cases, however, where enduring features only are present as single or restricted occurrences, they represent unique ecological conditions, and there is limited flexibility for boundary changes.

Maps of ASIs form the basis of Manitoba's consultation process on protected areas. These maps are distributed widely to industry, First Nation communities, and various other communities and interest groups. ASIs do not have interim protection; they are areas for discussion until a decision is made on whether to protect them in some fashion, in whole or in part.

Protected Areas Activities along the Hudson Bay Coast

Two of Manitoba's 18 natural regions and sub-regions border Hudson Bay, and parts of three others come close to the Bay. Wapusk National Park is the only existing protected area that borders Hudson Bay. Located in the Coastal Hudson Bay Lowland sub-region of the Arctic Tundra Natural Region, Wapusk serves to protect most of the sub-region's enduring features in the Cape Churchill area. Enduring features in the Cape Tatnam area, however, are minimally represented in Wapusk. Four ASIs have been identified to complete representation. They cover Marsh Point at the mouth of the Hayes River, and part of Cape Tatnam Wildlife Management Area.

The Maguse River Upland sub-region of the Arctic Tundra Natural Region has no existing protected areas. Four ASIs have also been identified here to represent its enduring features. The best known ASI is the Seal River estuary, by virtue of the Seal River having been formally recognised a Canadian Heritage River in 1992, after many years of study and consultations.

Some additional smaller areas along Hudson Bay have also been identified as worthy of consideration for protection of unique features. These include a heritage area

encompassing the former Churchill Rocket Range and a unique geological site near Churchill.

Manitoba's Freshwater Designated Areas

Lakes Winnipeg, Manitoba and Winnipegosis are three major freshwater areas in Manitoba. They have a wide variety of uses and activities, harbour a large portion of Manitoba's freshwater biodiversity and support many ecologically significant features, making them analogous to Hudson Bay. Since 1976, water levels in Lake Winnipeg have been regulated as part of Manitoba Hydro's electricity generation system on the Nelson River. As a result, unlike islands within Lake Winnipeg, no water-covered portion of the lake can formally be recognised as a protected area. To date, portions of Lake Winnipeg are included in Hecla/Grindstone Provincial Park and Grand Beach Provincial Park. In addition, two park reserves, Poplar/Nanowin Rivers and Fisher Bay, encompass water portions of Lake Winnipeg.

Lake Winnipegosis, however, is not a Hydro regulated lake. To date, three protected areas designated along the shore of Lake Winnipegosis include a portion of the waters of the lake. These areas are Lake Winnipegosis Salt Flats Ecological Reserve, and parts of Chitek Lake and Birch Island Park reserves.

To date, no water portions of Lake Manitoba are included in any protected areas or other designated areas that border the lake.

National Marine Conservation Areas

Presenters: Vicki Sahanatien

Date: Sept 10, 2003

Location: Rankin Inlet, NU

What are National Marine Conservation Areas?

- Protected areas owned and managed by Parks Canada Agency (Government of Canada)
- Policies include: National Marine Conservation Area Act (2002) Bill C-10, National Marine Areas System Plan (1995), National Marine Conservation Areas Policy (1994)
- Includes the seabed, its subsoil and overlying water column.
- May encompass wetlands, river estuaries, islands and other coastal lands.
- Offshore mining, oil & gas development and ocean dumping are NOT permitted.
- Sustainable use IS permitted.

Key Features of NMCAs

- Conservation: ecologically sustainable use (e.g. fisheries) and complete protection of marine resources.
- Managed in cooperation with other jurisdictions: federal agencies (DFO), territorial/provincial agencies, aboriginal government, land claim organizations, other organizations, and persons.
- Involvement and support of local people essential.
- Accessible for recreation, tourism and learning.
- Traditional ecological knowledge.
- Research & Monitoring.

Objectives of NMCAs

- Represent the diversity of Canada's marine ecosystems.
- Maintain healthy marine ecosystems and life that depends on the marine environment.
- Preserve biodiversity.
- Models of sustainable resource use.
- Facilitate and encourage scientific research and monitoring.
- Collect and use traditional ecological knowledge.
- Protect endangered species and their critical habitat.
- Protect and maintain areas critical to the lifecycles of economically important native species.
- Protect cultural resources.
- Provide education and tourism opportunities to enhance public understanding of marine conservation areas.

NMCA System Plan

- NMCA System Plan <u>Sea to Sea to Sea (1995)</u>
- Subdivided the Pacific (5), Arctic (9) and Atlantic (10) Oceans and the Great Lakes (5) into 29 marine regions.
- How: Geological features, oceanographic processes and marine life (plants, vertebrates and invertebrates).
- Long-term goal for Parks Canada: A network of NMCAs in each of Canada's oceanic and Great Lakes marine environments

Steps in Creating New NMCAs

- 1. Identifying Representative Marine Areas
- 2. Selecting a Potential NMCA
- 3. Assessing NMCA feasibility
- 4. Negotiating a new NMCA agreement
- 5. Establishing a new NMCA in legislation

Progress to Date

- Two operating NMCAs
 - Fathom Five in Ontario (Georgian Bay Marine Region)
 - Saguenay-St. Lawrence Marine Park (St Lawrence Estuary Marine Region)
- Representative Marine Areas have been identified in many of the marine regions.
- October 2002 Prime Minister announces action plan which includes creation of 5 new NMCAs over 5 years.
- 3 NMCA proposals already confirmed & active discussions occurring: Lake Superior, Ontario (Lake Superior Marine Region) Gwaii Haanas, BC (Hectate Strait & Queen Charlotte Island Shelf Marine Regions) Southern Strait of Georgia, BC (Strait of Georgia Marine Region)
- 2 candidate NMCA proposals being assessed: national balance, demonstrated public support, & ecosystem threats.

Status of Planning in the Hudson Bay Marine Region

- Step 1. Regional analysis study identified two representative marine areas: Rankin Inlet/Marble Island and Nelson River/Churchill River.
- Step 2. Nelson River/Churchill River area was selected as the preferred site for consideration as a potential NMCA.
- Next step: preliminary discussions with the governments of Manitoba and Nunavut to begin assessing feasibility.

Ukkusiksalik National Park

- Inuit Impact and Benefits Agreement signed on 23 August 2003 creating the newest national park
- Includes a marine component Wager Bay
- Not considered representative for the Fox Basin Marine Region
- Will protect important marine species and ecosystem

For More Information on National Marine Conservation Areas, contact:

Francine Mercier Senior Planner, Marine Studies National Parks Directorate Parks Canada Gatineau, QC

Email: francine.mercier@pc.gc.ca

Tel: 819-997-4916

Marine Environmental Quality (MEQ) in Hudson Bay

Presenter: Steve Newton (on behalf of Don Cobb, MEQ Coordinator)

Date: Sept 11, 2003 **Location:** Rankin Inlet, NU

Marine Environmental Quality (MEQ) is a statement of the health of the marine ecosystem, all the parts and how they are functioning. It considers such things as animals and plants, and how they interact with each other and the environment. It is a way of assessing the success of management plans in maintaining marine health. MEQ is one of three cooperative programs under Canada's *Oceans Act* (1997), Integrated Management and Marine Protected Areas are the others.

An important first step towards MEQ for Hudson Bay is the development of MEQ Objectives that reflect the value that coastal communities place on the health of the marine ecosystem. MEQ objectives are developed through collaboration between stakeholders (i.e. Hunters and Trappers Organizations, elders, community government, etc) and scientists, and rely on both traditional and scientific knowledge. They include things that should be conserved and protected (i.e. health of animals, habitats, water quality). From these objectives, *indicators* (signs and signals that things are changing) are chosen and *monitored*. An example of MEQ at work is the Tariuq monitoring program in the Western Arctic. Initiated as a pilot project in 2000, it is actively involving communities in the design and implementation of an Ocean monitoring program.

MEQ can also help us plan for protected areas in Hudson Bay by providing the environmental support to Marine Protected Areas (MPA) (please see Bert Spek's MPA summary). It can help us gather knowledge, identify research gaps, conduct ecological assessments and develop monitoring programs. For example, a Hudson Bay ecosystem overview is currently underway that will outline the traditional and scientific knowledge of Hudson Bay and provide important baseline information required for planning. It is nearing completion and should be ready for distribution at our next HBOWG meeting in March 2004.

MEQ Focus Group Meeting

The HBOWG will be hosting a small Focus Group meeting at the end of January in Winnipeg to draft MEQ Objectives for Hudson Bay. Representatives from the seven Kivalliq communities, Sanikiluaq and a collection of scientists will be invited to participate.

A Place for Traditional Ecological Knowledge in Resource Management: A Focus on Northern National Parks

Presenter: Micheline Manseau
Date: Sept 11, 2003
Location: Rankin Inlet, NU

Over the last two decades, there have been increasing numbers of statements from aboriginal groups, academics, governments and non-governmental organizations calling for additional study, understanding and use of traditional knowledge (Posey 1999). The expression of support for traditional ecological knowledge (TEK) varies between organizations and is becoming increasingly significant. In some cases there is a commitment to integrate or harmonize TEK with other sources of knowledge (ICC 1992, CFFS 1997), in other cases there is a call to respect, preserve, maintain and promote it or to commit to the use of TEK in managing natural resources (Canada 1995, DSD 2000). This aims at presenting how the strong and high-level commitments to TEK are affecting decisions and the decision-making process.

In looking at ongoing efforts across Canada, and particularly the work of national parks, we are documenting how aboriginal systems of knowledge and management are shaping the management institutions. What role does traditional knowledge play in decisions over the management of natural resources? In summary, we have observed that TEK is contributing a different way of knowing, learning and doing. It is affecting management decisions and re-shaping management institutions. Here are some key observations from using TEK in resource management.

A process that takes place over time

From the political, economical and knowledge perspectives, the use of TEK in resource management requires long-term commitments. Agreements are often put in place to define and secure the new management structures and ensure that sufficient funding is given for the development of new relationships and the establishment of new institutions. Ongoing efforts are required to document the knowledge base and to put in place the necessary protocols for the protection of aboriginal and intellectual property rights; clearly stating how the information will be collected, analyzed, interpreted, archived and used. Time is spent on the land gathering and sharing knowledge and skills; time is spent meeting with elders, seeking guidance and wisdom. New roles and capacity develop, people get to know and respect each other. For example, most northern national parks are collaboratively managed. The management committees or boards oversee the development of park management plans, yearly work plans, budgets, research and monitoring projects. These new governance structures lead to increased accountability and transparency and more integrated environmental decision-making.

Significant efforts are made at communicating, listening and learning from all people interested or affected by the issues. A common understanding of the issues develops and the gathering of additional information creates a sense of shared community (Stevens 1997, Singleton 1998, Wondolleck and Yaffee 2000).

A space needs to be created for the meaningful participation of traditional knowledge holders. They need to be part of the decision-making process; testimony and documentation can only contribute to the decisions if properly interpreted and communicated to the specific issue. Such space, achieved through working on common issues, spending time on the land, developing a common vision, allows for meaningful interchange of information and respect for different knowledge and management systems. This leads to people becoming 'convergent' in both knowledge systems, people that can act as translators and can oversee the implementation of jointly developed management goals and objectives.

And such commitment can only be made if there are **clear benefits to the communities.** Aiming to keep a balance between the needs of the communities and outside agencies, spending time on the land and away from home, community members are carefully signing on agreements and projects. They need to have trust in the process and to be convinced that the benefits to the community are first and foremost.

References

Conservation of Flora and Fauna Secretariat (CFFS). 1997. Recommendations on the integration of two ways of knowing: traditional indigenous knowledge and scientific knowledge. (http://www/grida.no/caff/inuvTEK.htm)

Canada. 1995. Canadian Biodiversity Strategy. Canada's response to the Convention on Biological Diversity. Minister of Supplies and Services. Hull.

Department of Sustainable Development (DSD). 2000. (http://www.gov.nu.ca/eng/dept.html).

Inuit Circumpolar Conference. 1992. *Principles and elements for a comprehensive Arctic Policy*. Centre for Northern Studies and Research, McGill University. Montreal.

Posey, D. A. (ed.) 1999. *Cultural and spiritual values of biodiversity. United Nations Environment Programme.* Intermediate Technology Publications. London, UK and Nairobi, Kenya.

Singleton, S. 1998. Constructing cooperation: the evolution of institutions of comanagement. University of Michigan Press, Lansing.

Stevens, S. (ed.). 1997. *Conservation through cultural survival: indigenous peoples and protected areas.* Island Press, Washington.

Wondolleck, J. M. and S. L. Yaffee. 2000. *Making collaboration work: lessons from innovation in natural resource management*. Island Press, Washington D.C.

Indigenous Knowledge Holders Association

Presenter: David Alagalak
Date: Sept 11, 2003
Location: Rankin Inlet, NU

Aboriginal people are important in identifying sensitive areas. It is important to understand the lives and habits of the Aboriginal people who have lived in this area. There is a lot of Indigenous Knowledge in the Kivalliq that could help us make management plans for Hudson Bay. Unless we start documenting the knowledge, no one will ever know. No history of the site will exist. There will be no recognition of important areas in the past. It is time to organize a body, association or small organization to try and put the Indigenous Knowledge together for the benefit of all people.

As it stands now, every time there is a license to be made, we have to go out to the elders who have been in the area and document what they know. This process is very time consuming and difficult. We should be funded by the government and other organizations to pursue the establishment of this body of association for indigenous knowledge. We should identify what we think we will need in the areas of wildlife, land and water. For example, knowledge of tent rings, activity sites etc., is becoming a very important thing for Canada.

We should start small and work with the information is readily available. It could become something bigger for all of Nunavut later. We have good relations with the Aboriginal people in Northern Manitoba. It is very important to talk to people with knowledge of the area. There is a lot of knowledge in James Bay too.

When you live close to the land as Aboriginal people have done for so long your knowledge of the land is in your blood. It isn't a machine or a computer.

Ringed Seal Recruitment in Western Hudson Bay

Presenters: Dr. Steve Ferguson
Date: Sept 10, 2003
Location: Rankin Inlet, NU

Climate warming is expected to impact the Arctic in crucial ways with Hudson Bay region predicted to lose its sea ice within 50-100 years. Dramatic changes will affect the distribution and abundance of marine mammals, of considerable importance to local Inuit for economic and cultural reasons. Ringed seals are considered a keystone species that depend on sea ice and expectations are that they will first show the negative effects of climate change. A study of movements and behaviour or seals in Hudson Bay has commenced. The Hunters and Trappers Organizations from three communities, Arviat, Chesterfield Inlet, and Sanikiluaq have agreed to provide samples from their hunted seals. Samples will provide data on age structure, reproduction, survival, feeding habitats, contaminants, disease, and genetics.

Preliminary results were described. We used seals killed by Inuit hunters from western Hudson Bay (1991-92, 1999-2001) to assess recruitment over time relative to the following climate measures: snowpack, snowfall, rainfall, temperature, and timing of spring break-up. We noted a trend towards less snowfall and snowpack over the past 3 decades (1970-2002) that corresponded with observations of decreased ringed seal recruitment from hunters. Years of low snowfall and low snowpack were correlated with fewer ringed seals born these years that would have survived to become adults and later harvested. No relationship between snow and recruitment was observed for earlier (1991-92) hunter kill data during a period of greater spring snowfall. Other environmental measures suggest earlier spring break-up of sea ice that together with snow trends predict future problems for pup survival in ringed seals living in western Hudson Bay. For example, western Hudson Bay has shown a 24 day earlier spring break-up over the 1970-2003 period. Other areas of Hudson Bay also showed similar trends with Sanikiluag displaying a 43 day greater period of open water over the past 30 years. Results suggest that a recent climate trend of less snowfall and earlier ice break-up is responsible for greater pup mortality over the past 20 years.

Vegetation Mapping in the Kivalliq

Presenters: Brock Junkin (On behalf of Mitch Campbell, NSD Wildlife Biologist)

Date: Sept 11, 2003 **Location:** Rankin Inlet, NU

Why Map Vegetation

- Most jurisdictions are not in a position to respond effectively to wildlife issues pertaining to ecosystem disturbance
- The identification of vegetation classes important to wildlife is an essential tool for wildlife managers to assess the impacts of cumulative land use on wildlife species through the modification and/or destruction of their habitat.

The History of the Project

- The Kivalliq habitat mapping project began as a pilot study in 2000.
- Over 170 plant communities were sampled within and adjacent to the Qamanirjuaq caribou herds calving and post-calving grounds.
- The pilot study was successful producing a 92% users accuracy.

Objectives

- Locate and quantify important wildlife habitats and monitor their change over time.
- Use GIS (Geographic information systems) to integrate the Kivalliq habitat map with landform/cover data and a time series of regional weather data, water resource data, and wildlife point data (generated from aerial surveys, collaring, local knowledge).
- Provide management organizations with an interactive geo-database that will be used to monitor and assess both man caused and natural impacts on wildlife habitat within the Kivalliq.
- Provide the Nunavut government with baseline information necessary to initiate a protected areas strategy within Nunavut.
- The satellite images are then analyzed for their unique colour values and assigned descriptive titles based on the site description data collected in the field.
- The goal of the Kivalliq habitat mapping project is to map the entire Kivalliq Region by August 2008.

Wildlife Habitat

- Habitat quality, quantity and availability largely governs the distribution and abundance of many ecologically and economically and important species of wildlife.
- An understanding of vegetation classes containing high quality forage and how these classes relate to wildlife is critical to the assessment and prediction of a population's status.
- The ability to monitor environmental change is a necessary first step in understanding and predicting wildlife population fluctuations.

- Individually, land use projects such as strip mines, water development, urban expansion, pipelines, road construction, chemical contamination, noise pollution etc. may or may not pose a threat to wildlife health through the modification of their habitats.
- These same projects when combined, especially over time, often pose a very real and large scale threat to critical wildlife habitat and as a result, the wildlife species themselves. Square miles.

Conclusions

- As various demands on wildlife habitat increase, habitat mapping will allow managers to make confident predictions necessary to mitigate the impacts of land use within Nunavut.
- Habitat mapping is one of the essential tools for the effective management of Nunavut land use activities.
- A cost effective method of assessing environmental impacts on wildlife will result. Assessments can be done for hundreds of dollars rather than tens of thousands