

Nan Geenjit Gwitr'it T'agwàa'in /
Working for the Land

REGIONAL PLAN OF ACTION

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Revised

Letter of Transmittal

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1.0

Land Use Plan for the Future: Regional Plan of Action

Dylan Spencer



Participants in the Johnny Charlie Memorial trip on their way from Fort McPherson to Old Crow

Introduction

The Planning Board plays a critical role in implementing the Gwich'in Land Use Plan. Overseeing the implementation of the plan is a challenging task as the Plan covers a broad range of issues. As much as possible, the Land Use Plan deals with these issues in an integrated way, which means that issues are considered together. Beyond the work on developing Plan zoning and policy, the Board has considered what else might be done and by whom. The Planning Board therefore identified the need to be involved in many different areas facilitating, where possible, the resolution of issues identified in the Plan.

The Board intends this companion document of the Plan to be a tool for looking at an integrated approach for setting and meeting goals for various land use issues. Put in other words, a place to identify opportunities where regulators, researchers, government, industry, and communities can work together on resource management. Knowing that actions to implement the Plan and address land use issues often require cooperation within the larger resource management system, the Planning Board feels it is suitable to frame this discussion in a regional plan of action.

1.1 Purpose of Regional Plan of Action

After the Gwich'in Land Use Plan was approved in 2003, the Board created an Implementation Strategy based on the Implementation Plan Outline from the Land Use Plan. While the strategy document was useful for tracking the Board's work and identifying land use issues, the Board felt that more progress could have been made by all parties on completing the list of actions. The Board is recommending a revised approach to build cooperation to successfully address land use issues.

This Regional Plan of Action (RPA) is meant to be a working document where recommended actions and realistic timelines can be identified for addressing land use issues. As a "working" or "living" document, it will be updated yearly and used as a monitoring tool. The processes in developing and updating this RPA will be an extension of the processes and partnerships that the Planning Board uses for developing and reviewing the Land Use Plan.

When designing this companion document to the Land Use Plan, the Board decided that it should also be consistent with the Environmental Stewardship Framework that is described by INAC.

What is the Environmental Stewardship Framework? ¹

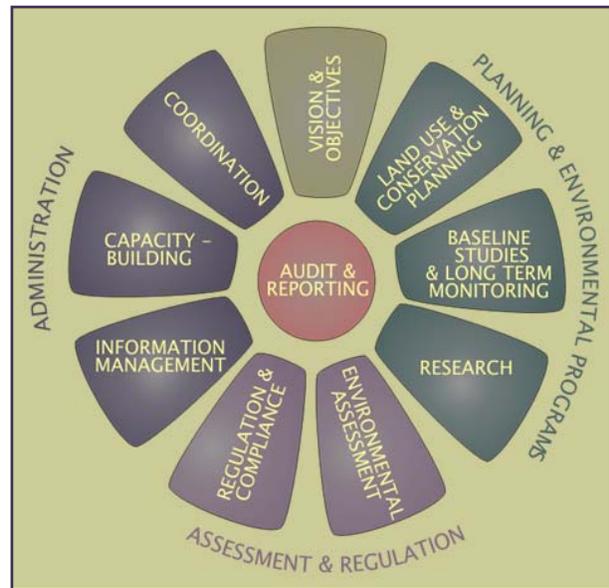
The Northwest Territories (NWT) Environmental Stewardship Framework (ESF) is a collaborative effort to improve environmental management and stewardship in Canada's Northwest Territories.

The Steering Committee has identified ten components, or functions, required for effective assessment and management of cumulative effects in the NWT. Traditional knowledge is an essential element of each component.

Cumulative effects are changes to the biophysical, social, economic, and cultural environments caused by the combination of past, present and "reasonably foreseeable" future actions.

The vision of the NWT Environmental Stewardship Framework is to make recommendations to decision-makers to facilitate:

- *the protection of ecological integrity,*
- *the building of sustainable communities, including social and cultural dimensions, and*
- *responsible economic development within a sound environmental management framework.*



The Board feels the RPA is a way to explore opportunities to integrate the multiple resource management processes that are described by the ESF. This first draft provides a starting point for cooperatively building a more comprehensive plan of action with other environmental managers and stakeholders.

The context of this proposed Gwich'in Regional Plan of Action is somewhat different from the other existing regional plans of action in the Northwest Territories. The Beaufort Sea Strategic Regional Plan of Action (BSSrRPA) and the Slave Geological Province Regional Plan of Action identify some specific actions regarding the management of human activities and the environment. Certain types of these actions are already addressed through the land use planning process in the Gwich'in Settlement Area.

1.1.1 Guiding Principles

The actions to be described in the Regional Plan of Action are an extension of the planning process so will be subject to the same principles outlined in section 1.4 of the Plan that guide its development and review.

1.1.2 Endorsement/Approval

Though a companion document to the land use plan, approval of the plan does not carry any legal obligation for the actions listed in the Regional Plan of Action. The approval of the Land Use Plan does carry acceptance by the signatories of the obligation to respect the actions in the Regional Plan of Action. Most actions are “recommended” and mean the party receiving the recommendation should act in good faith and make the best effort to carry out that action.

The RPA is a working document so it will have updates and status reports annually for the next five years. At that time it will undergo a comprehensive review with the Plan. Because this is an extension of the land use planning process, full partner involvement will be sought to ensure continued endorsement.

1.1.3 Implementation

As the Board already has responsibility for monitoring the implementation of the land use plan and the following actions are just an extension of the planning process and issues, the Board sees a role in monitoring. Documenting or encouraging progress on action items has proven a challenge in the past. This time, the Board is looking at the monitoring as being a cooperative process like the development of the RPA. Points to explore include:

- ESF working group support for monitoring and reporting on RPA
- identifying specific lines of communication with responsible authorities
- reporting mechanisms
- plan signatory and stakeholder participation

The following page shows the most recent list of stakeholders from the Plan that will also be the communications list for the development of the RPA.

STAKEHOLDER LIST

Federal Government

1. Aboriginal Affairs and Northern Development - plan signatory
2. Canadian Coast Guard
3. Canadian Heritage
4. Canadian Wildlife Service
5. Fisheries and Oceans
6. National Defence
7. Natural Resources Canada
8. Parks Canada

Territorial Government

9. Environment and Natural Resources - plan signatory
10. Aurora Research Institute
11. Department of Transportation
12. GNWT Inuvik Regional office of Executive
13. Industry, Tourism and Investment
14. Municipal and Community Affairs
15. Prince of Wales Northern Heritage Centre

Regional Land Claim Organisations

16. Gwich'in Tribal Council - plan signatory
17. Gwich'in Renewable Resources Board
18. Gwich'in Social and Cultural Institute

Community Land Claim Organisations

19. Ehdiiat Renewable Resource Council
20. Ehdiiat Designated Gwich'in Organisation
21. Gwichya Renewable Resource Council
22. Gwichya Designated Gwich'in Organisation
23. Nihtat Renewable Resource Council
24. Nihtat Designated Gwich'in Organisation
25. Teet'it Renewable Resource Council
26. Teet'it Designated Gwich'in Organisation

Community Government

27. Charter Community of Tsiigehtchic
28. Hamlet of Aklavik
29. Hamlet of Fort McPherson
30. Town of Inuvik

Industry

31. Aklak Air
32. Arctic Red River Outfitters
33. Bob's Welding
34. Canadian Helicopters
35. Canadian Association of Petroleum Producers
36. Diamondex
37. Eagle Plain Resources
38. Gayna River Outfitters
39. Gwich'in Helicopters
40. Imperial Oil Resources Ventures Ltd.
41. North - Wright Airways
42. Northern Transportation Company Ltd.
43. NWT Chamber of Commerce
44. NWT Chamber of Mines
45. Prospectors and Developers Association of Canada
46. Stornoway Diamond Corporation

Environmental Non-government Organisations

47. Canadian Arctic Resources Committee
48. Canadian Parks and Wilderness Society
49. Ducks Unlimited
50. Ecology North
51. World Wildlife Federation

Transboundary Planning

52. Inuvialuit Joint Secretariat
53. North Yukon Planning Commission
54. Peel Planning Commission
55. Sahtu Land Use Planning Board
56. Sahtu Renewable Resources Board
57. Mackenzie River Basin Board
58. Arctic Borderlands Ecological Cooperative
59. Porcupine Caribou Management Board

Regulatory Authorities not already on this list

60. *Gwich'in Land and Water Board*
61. *Mackenzie Valley Land and Water Board*
62. *Mackenzie Valley Environmental Impact Review Board*
63. *National Energy Board*

1.2 Land Use Topics: Objectives, Issues, and Actions

This section of the document gives detailed direction for dealing with land use issues taking a broad view of land as being the whole environment. Goals, objectives and specific issues are outlined for 11 different topic areas. These topic areas are:

1. Resource Management Processes
2. Gwich'in Heritage and Cultural Resources
3. Water and Air Resources
4. Renewable Resources
5. Non-Renewable Resources
6. Pollution and Waste Management
7. Transportation, Utilities and Communication
8. Tourism and Recreation
9. Legislative Protected Areas
10. Transboundary Planning and Global Connections

The information to be presented here is not just relevant to regional land use planning work; it could be useful to those who have a role in:

- environmental assessment decision making,
- project specific authorization decision making,
- planning development projects,
- setting research priorities,
- cumulative effects assessment and monitoring,
- etc.

When possible, the preferred type or format of data will be identified. A common format will make it easier to share and will help avoid duplication of efforts because of incompatible data.

Each of the 10 topic areas are discussed on the following pages; reviewers are encouraged to comment on any action, add initiatives of their own to advertise for partnerships or prevent duplicated efforts by others, or express interest in being involved in a specific activity. Similarly, reviewers are encouraged to add to the references tables with any existing reports or reference material that they feel is useful.

1.2.1 *Resource Management Processes*

This particular land use topic is related to processes around managing resource or land use rather than a specific land use. Chapter 3 of the Gwich'in Land Use Plan describes most of heart of the regulatory system, and Appendix C provides a fairly comprehensive list of authorities, legislation, and authorizations associated with resource use in the Gwich'in Settlement Area. This section will be used to highlight priority issues that need attention or could use improvement.

There are two goals the Planning Board wishes to focus on:

1. To directly involve residents, communities, Gwich'in and designated Gwich'in organizations in land use planning and to build their capacity for participating in decision-making concerning the use, management and conservation of land, water and resources. (Based on Section 1.1.7 and 24.2.4 of the Gwich'in Land Claim)
2. To promote responsible development of resources for the existing and future well being of the residents, communities and Gwich'in of the settlement area, having regard to the interests of all Canadians. (Based on Section 24.2.4. of the Gwich'in Land Claim)

Objectives

- To build community understanding about their role in land, water, air and resource decision making.
- To improve the capacity for Gwich'in and community involvement in decision making about the use, management and conservation of land, water and resources.
- To promote and support integrated resource management (based on the collaborative approach described in the environmental stewardship framework)
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

The discussion of this topic is divided into 3 sections: **community involvement**, broader **regulatory system functions**, and the **Gwich'in land use planning process**.

Community Involvement

People in the local communities want to be involved in decisions about land, water, air, and resource management. As the Gwich'in have a special relationship with the land and rely on the land for food, wood and other resources, they want to take care of the land properly.

The Gwich'in Land Claim and the Mackenzie Valley Resource Management Act provide the Gwich'in the right to participate in decision making about land, water and resources. To be able to effectively participate in the system established by this legislation, people need to have a clear understanding of:

- what groups make decisions about land, water, air, wildlife and resources,
- what decisions these groups can make, and
- what role the communities play in making those decisions.

Community needs, values, knowledge and experience should be considered in all management decisions. Having the communities involved from the beginning of a research or development project, from its design to how it is monitored, is beneficial. Considering community knowledge and experience will help in making better management decisions. Community involvement at the beginning of processes also reduces conflicts between communities and groups proposing activities. Information flow needs to be plain language.

Resource Management Processes Action #1	Timeframe
<p>The Planning Board recommends that all management and regulatory groups work with communities to improve the level of understanding of communities about decision-making processes. Efforts should be coordinated where possible.</p> <p>This has been discussed a little at the NWT Board Forum and may be the best opportunity to determine specific activities. Need to review the latest actions from strategic planning exercises.</p>	Ongoing

Resource Management Processes Action #2	Timeframe
<p>In order to improve communications in the future, the Planning Board recommends that all management and regulatory groups review on an on-going basis:</p> <ul style="list-style-type: none"> • When and how often they consult with communities, and • How effective they are in involving communities in decision-making. <p>This is likely to become a more formal part of boards' operations under the NWT Board Forum initiatives for strategic planning and accountability reporting. Need to inquire about other government initiatives.</p>	Ongoing

Economic Security: In addition to communities having a role in ensuring development doesn't have a significant negative impact on the land or residents of the region, community involvement should be essential to the development and implementation of initiatives for economic security in the region.

In the recent past, economic activity has not been stable in the Gwich'in Settlement Area. There is a boom time when the oil and gas industry is active, however as the oil and gas industry declines so does the overall economy. Development activities that provide a long term investment in the Gwich'in Settlement Area are needed to smooth out the boom and bust effects of the oil and gas sector on the region.

A more diverse economy and skilled labour force will create a more stable regional economy. Communities have strongly expressed their need for more employment and training.² New businesses need to be established in the Gwich'in Settlement Area and existing businesses need to be supported.

Communities would like to see more incentives for local commercial activities building on skills they possess and that are related to traditional activities. Areas where there is expertise in the Gwich'in Settlement Area include renewable resource harvesting and management, water and land transportation, oil and gas activities, construction, tourism and traditional arts and crafts. Taking advantage of the expertise found in the Gwich'in Settlement Area and improving skill levels will help lead to economic self-sufficiency.

The Gwich'in traditional land uses should be encouraged and supported as they provide an economic option other than the wage economy. Traditional activities include trapping, hunting, fishing, vegetation harvesting, trail cutting, camp and cabin construction, making of traditional clothing as well as arts and crafts. These activities continue to be an important part of Gwich'in life and should be complemented by employment opportunities in the wage economy.

Resource Management Processes Action #3	Timeframe
<p>The Planning Board recommends that the Gwich'in Tribal Council with the involvement of the Designated Gwich'in Organizations develop a long-term economic strategy. This should include developing economic plans for Gwich'in Settlement Lands that have a diversity of options such as tourism, outfitting, and non-renewable resource development.</p> <p>Contact GNWT, GTC, and AANDC to find out current initiatives. Will include discussion of request by GTC to rezone subsurface parcels.</p>	

Regulatory System Functions

Improving awareness of how resources are regulated can improve the effectiveness and function of the system. As shown in the diagram for the Environmental Stewardship Framework, there are several elements for integrated resource management. The input from regulators, land managers, and policy makers (government and public boards) into this regional plan of action will help identify accountabilities and proper lines of communication for improving the system. The table in Appendix C of the Gwich'in Land Use Plan document provides a good summary of who the Board intends to work with in this respect.

There are already some initiatives underway that are meant to improve the regulatory system.

One of these initiatives intended to help coordinate resource management is the NWT Board Forum. "The purpose of the NWT Board Forum is to give organizations involved in land use planning, environmental assessment, land and water regulation and resource management an opportunity to learn from one another and to coordinate activities. The Forum is intended to improve and maintain effective lines of communication between its members, resolve common issues, and share expertise. It also provides industry, government and other organizations with a structured forum to engage and interact with the Northwest Territories' co-management boards."¹ The NWT Board Forum began meeting in April 2004.

Another initiative is by the Minister of Aboriginal Affairs and Northern Development. Prompted by hearing criticism from industry about the regulatory system in the North, the Minister began to investigate options for regulatory improvement. Neil McCrank and John Pollard were assigned with the task of evaluating the system and making recommendations to the Minister.

Most of the changes proposed are stated as being meant to address efficiency needed for a high degree of resource development and the criticism of a complex, unpredictable regulatory system. Some are meant to address administrative and capacity issues. The Planning Board suggests that any proposed changes should also:

- be consistent with devolution in the Northwest Territories with a view to establish a model for the regulatory system in the long term.
- take the approach of ensuring or improving Aboriginal participation in the regulatory system.
- be developed through processes which allow the Planning Board (and other regulatory authorities) the opportunity to be meaningfully involved in decisions about changes to the regulatory system, either through devolution or the regulatory improvement initiative.

¹ <http://nwtboardforum.com/board-forum/>

Resource Management Processes Action #4	Timeframe
<p>The Planning Board will continue observing and participating, where appropriate, in initiatives for fundamental changes to the resource management system such as amendments to legislation/regulation.</p> <ul style="list-style-type: none"> • There is a process currently underway for amending the MVRMA: • Enforcement concerns will be raised for discussion where appropriate 	Ongoing

Sufficient baseline data built up through an effective Cumulative Impacts Monitoring Program (CIMP) should help with regulatory efficiency. Although there are usually regulated timelines for the processing of applications, if a proponent does not provide enough information in an application to a regulator, this will cause delays in the process. If a regulator needs more information to evaluate the potential impacts of a development, the application process will be delayed by the time it takes for the proponent to collect and provide any requested information. There are many gaps in the baseline data that is often needed for this kind of analysis or evaluation. A cooperative effort to identify priorities and partnerships for CIMP projects will maximize the quantity and quality of data collected.

Resource Management Processes Action #5	Timeframe
<p>The Planning Board recommends that the Cumulative Impacts Monitoring Program be funded and supported such that it fulfils the intent of section 146 of the MVRMA regarding a responsible authority for monitoring Cumulative Environmental Impacts.</p> <p>Related to action #4 in Water and Air Related to action #3 in Pollution and Waste Management</p>	Ongoing

Resource Management Processes Action #6	Timeframe
<p>The Planning Board recommends that co-management boards continue to develop an integrated management system to improve the level of involvement of Gwich'in communities and representative organizations in decision-making processes.</p> <p>Need to re-establish the Gwich'in all-boards meetings. Meeting routinely will help:</p> <ul style="list-style-type: none"> • Coordinate visits to communities (minimizing time demands on community) • Integrate research programmes • Discuss planning issues 	Ongoing

Resource Management Processes Action #6	Timeframe
<ul style="list-style-type: none"> • Discuss education and training, and • Discuss similar integrated resource management concerns. <p>In the past, the chair and a staff member of the GRRB, GLWB, GLUPB, GSCI, and the GTC Implementation Coordinator have met to provide updates on current activities to one another ('Gwich'in All-Boards'). The groups agreed that the GTC should take the lead on calling these meetings as it fits within the mandate of the GTC to monitor implementation of the Land Claim.</p>	

Even with an annual 'Gwich'in All-Boards' meeting, the Planning Board will still need to set up meetings with the GRRB, GLWB, GSCI, and the GTC individually as necessary for our planning and implementation activities.

Resource Management Processes Action #7	Timeframe
<p>The Planning Board as part of the Gwich'in Land Use Plan Review will conduct a survey on community involvement in decision-making. The survey will evaluate how well groups have involved communities in decision making about land, water, air and resource management.</p> <p>The Board feels that working with the GTC on this survey would be a good approach since they have an interest in monitoring Claim implementation, and this very important element of community involvement is clearly stated in the claim.</p>	

Gwich'in Land Use Planning Process

The Board has its own list of specific actions which equates to a 5 year work plan for the implementation and monitoring of the Gwich'in Land Use Plan. This includes the work preparing for the next plan review which starts as soon as the revised plan is approved. A Terms of Reference will be drafted for the 5-year review and circulated to the Planning Partners for approval. It will contain details about the process and principles the Board will use to complete the next review.

For this revision to the Land Use Plan, the Planning Board has used the best information available to make decisions. To keep improving the Plan, the Planning Board needs to gather information on a continuing basis. In all areas/issues more information would be helpful for planning, and research by various organizations is often ongoing. For instance, the Gwich'in Social and Cultural Institute is continuing to collect new heritage resources information. The Gwich'in Renewable Resource Board will continue to do research on wildlife, fish and forests. The Western NWT Biophysical Study (ENR) and CIMP/CEAM programs (AANDC) should provide additional material on the existing biophysical environment and on changes occurring to the environment.

The Planning Board will develop a research plan to evaluate where there are gaps in the information we need for the 5-year review. The Planning Board also needs to look closely at what other items need to be researched in anticipation of land use pressures in the next five years.

Resource Management Processes Action #8	Timeframe
<p>The Planning Board will determine information requirements for continued planning processes. This includes the development of a research plan followed by the collection and analysis of new information.</p> <p>Some of the focus for this item has been identified during the recent plan review and includes:</p> <ul style="list-style-type: none"> • Cardinal Lakes SMZ - get more information to be able to determine if or how increased measures for important waterfowl habitat • Arctic Red River SMZ • Campbell Hills SMZ • Investigate options/needs for addressing Cumulative effects in Plan (working with GRRB, ENR, AAND, GTC?) Connect to monitoring initiatives. <p>Action # 5 is connected to this one. Once CIMP is more established it can be linked to Land Use Planning processes. The collection of baseline data should allow the Board to determine thresholds for development which would then be integrated into the regulatory system and monitored.</p>	

The Board wants to do our part to ensure planning in the Mackenzie Valley is integrated so Section 1.2.10 of the RPA discusses *Transboundary Planning* in more detail. Although it would be valley-wide, an initiative worth discussing in this section is linked to information needs for regular Plan reviews. There is currently an initiative by a group of government and Regulatory Authorities to have a common access point for sharing spatial land use information (GIS data) collected from authorisations that they issue. The Planning Board staff has provided input as to the format that will make the data most useful for planning purposes. The working group hasn't been active since about 2009. More funding is required for further work on the development of a shared, GIS capable data website. (need to check on status)

The Mackenzie Valley Resource Management Act (Section 47) states that Regulatory Authorities do the initial check of a projects conformance with an approved land use plan unless the responsibility is referred to the Board. The conformity check consists of assessing if the activity described in an application to a Regulatory Authority (RA) is allowed under the Land Use Plan, and what

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conditions from the Plan need to be attached to any authorizations issued. The Board must be on all regulatory authority referral lists to keep track of all applications and licenses/authorizations issued as a way to monitor plan implementation.

The Board will meet with each of the following regulatory authorities after approval of the revised plan to introduce the new plan and re-confirm the conformance check process:

- Gwich'in Land and Water Board
- Mackenzie Valley Land and Water Board
- Mackenzie Valley Environmental Review Board
- National Energy Board
- Aurora Research Institute
- Gwich'in Tribal Council - Land Administration
- AANDC
- DFO
- any other agency doing preliminary screening under Schedule 2 of the MVRMA

In the MVRMA the Board is not mandated to check the conformance of every authorisation issued by a regulatory authority, but is mandated with monitoring the implementation of the Plan. The Board needs to develop a systematic, accountable, and manageable process.

Resource Management Processes Action #9	Timeframe
<p>Gwich'in, communities and regional organizations have been involved throughout the Plan's development. They will continue to be involved in the implementation of the Plan by:</p> <ul style="list-style-type: none"> • The Planning Board will visit each community to discuss the approved revised Plan. A list of the revisions made to the Plan will be discussed. The Planning Board will also show how the Plan fits in with the current regulatory framework. • Gwich'in, communities and regional organizations must also be aware of how the Plan is affecting proposed land use in the Settlement Area over time. This includes knowing which land use applications conform to the Plan and have been approved through the regulatory process. • A newsletter specifically directed to the communities will be published. Content will vary depending on what issues are most pressing, however, each newsletter will contain a brief explanation of the Plan, and where we are in the implementation process. (could consider jointly producing one with GRRB and GLWB) • At least one staff and Board member will attend the Gwich'in Annual Assembly. Whenever possible, we will set up with the GTC a time slot for a brief presentation regarding the Plan. If GTC requests a presentation, both staff and Board will be involved. • The Planning Board is committed to doing more detailed planning, particularly along proposed highway and pipeline corridors. Gwich'in, communities and regional organizations will be fully involved in the 	<p>Annually, at a minimum</p>

Resource Management Processes Action #9	Timeframe
<p>consultation process as they were in the development of the Plan.</p> <ul style="list-style-type: none"> • In doing more detailed planning or considering plan amendments, the Planning Board will research and put together land use information. The information will be shared with Gwich'in, communities and regional organizations. They will be asked for their feedback and will be asked to contribute additional information. Any draft amendments or decisions based on more detailed planning will be reviewed by Gwich'in, communities and regional organizations and will require the approval of the GTC (before submitting to the GNWT and AANDC for their approval). • Plan Monitoring: Follow-up with regulators like ENR (commercial forestry permits) regarding conformance check processes and decisions 	

Resource Management Processes Action #10	Timeframe
<p>Youth Involvement Strategy The Planning Board will target youth in the communities for educating them regarding the Land Use Plan and the land use planning process. So far, planned activities include:</p> <ul style="list-style-type: none"> • remind schools of the teachers' resource materials • youth included in planning activities by special invitation • distribution of Gwich'in Atlas to schools once complete <p>Will look at a follow-up project to the Atlas for a teachers' guide. Will approach the GTC and GSCI for potential partnership.</p>	<p>September annually Ongoing</p> <p>TBD</p>

Resource Management Processes Action #11	Timeframe
<p>The Planning Board will review conditions placed on Gwich'in Special Management Zones and Conservation Zones with the assistance of appropriate groups taking into account traditional knowledge and scientific information.</p> <p>This will include further investigation of the following:</p> <ul style="list-style-type: none"> • conditional approval of commercial activities in CZ • 1000 m setback from mineral licks for any type of tourism infrastructure in CZ • Condition requiring developers to report sightings of mineral licks to the Protected Areas Strategy Secretariat • Uranium policy • Coal Bed Methane and Shale Gas policy • Conditions for forest management (explore need for with communities) 	

Resource Management Processes Action #12	Timeframe
<p>The Planning Board will approach the PAS Secretariat to do an analysis of the Plan according to ecoregion representation, ecological viability, watershed protection, and rare animal protection. This will assist with more detailed planning for plan reviews.</p>	

Resource Management Processes Action #13	Timeframe
<p>The Planning Board will work with communities and the GTC to explore the economic potential for rezoning Gwich'in subsurface lands currently under conservation zoning to allow for development.</p>	

Table 1: Resource Management Processes Resources

References	Comment
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Management Plan for Dall's Sheep in the Northern Richardson Mountains, Gwich'in Renewable Resource Board	
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Strategic planning template for Northwest Territory Resource Management, Advisory, and environmental assessment Boards, Strategic plan 2006/2007-2008/2009	
Building a path for Northern Science, Government of the Northwest Territories Science agenda (November 2009)	
NWT guidance for The Protection of Land, Forest, and Wildlife, Oil and gas seismic exploration, DENR, GNWT, Environment Canada, Indian and Northern Affairs Canada. (draft June 25, 2009)	

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References	Comment
Mackenzie River Basin Board Strategic Plan (winter 2006)	
Mackenzie River Basin Transboundary Waters Master Agreement Framework for Action 2008-2012	
Coordination, implementation and monitoring of mitigating measures and terms and conditions, an MVRMA relationship building workshop, draft summary report (October 10-11, 2007) Yellowknife, NWT Prepared by Terriplan Consultants (November 2007)	
Effectiveness of Mitigation Measures, Discussion paper (January 2008) Prepared by Terriplan Consultants.	
Gwich'in Renewable Resource Board, Wildlife management research priorities	
Aboriginal consultation and accommodation, interim guidelines for Federal Officials to fulfill the Legal Duty to Consult, GNWT (February 2008)	
Environment and Natural Resources framework for action 2008-2012, Status Report to June 2009	
Seeking Certainty, New approaches to land management in the Northwest Territories, Prepared by Jamie Bastedo-Cygnus environmental, Yellowknife (March 2010)	
Mackenzie Highway in the Gwich'in Settlement Area (2010 MAP)	
Compendium of Research in the Northwest Territories (2008), Aurora College Aurora Research Institute	
NWT Species at Risk, Stewardship Program 2010-2011	
A Framework for determining whether a Proposed Development is likely to be cause of significant public concern, Mackenzie Valley Environment Impact Review Board, Manager of Environmental Impact Assessment (Martin Haefele)	
CCME Consultation on Environmental Assessment (EA) Processes, ENR/GNWT	
Workshop for the development of NWT seismic guidelines, IMG Golder/Inuvik, Julia Krizan	
Summary, Peel River well inspection program, (June 21, 2004) Richard Corbet & Debra Wortley	
AANDC's Sustainable Development Strategy 2004-2006, Bob Overvold	
Consolidated Research Priorities of the NWT Board Forum, Vern Christensen, Executive Director/MVEIRB	
Sahtu Target Implementation Project, ALCES Group (Terry Antoniuk, Dr. Micheal Sullivan, Karen Manuel, Mika Sutherland, Shawn Francis) March 2009.	
Draft NWT Hydro Strategy – the foundation for a sustainable energy future. Energy Planning, ITI/GNWT	
Mackenzie Valley Environmental Impact Review Board, Strategic Plan 2008/2009 to 2010/2011	
Mackenzie Valley Environmental Impact Review Board, Operational Interpretation of Key Terminology in Part Five of the Mackenzie Valley Environment Management Act. Mackenzie Valley Environmental Impact Review Board (May 2006)	
Cooperation Protocol, between The Mackenzie Valley Environment Impact Review Board (the MVEIRB) and The Government of the Yukon as represented by the Development Assessment Process Branch (the GY) (April 12, 2005)	
Key Concepts and Terms (Application for License / permit)	
Mackenzie Valley Regulatory Process (Application for License / permit)	
Indian and Northern Affairs Canada, Board Forum (November 12, 2010) THE PEEL PETROLEUM PROJECT & HYDROLOGY AND NORTHERN PIPELINES: HAZARDS AND ENVIRONMENTAL PROTECTION	
Regional Geoscience Studies and Petroleum Potential, Peel Plateau and	

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References	Comment
Plain (January 2006), Canada Geological Survey, Northwest Territories Geoscience office, Yukon Geological Survey.	
Sustainable Development Strategy (2001-2003) Indian and Northern Affairs Canada	

1.2.2 *Gwich'in Heritage and Cultural Resources*

Our goal is to protect and promote Gwich'in culture for present and future generations, through the protection and management of its heritage resources in a manner that is consistent with Gwich'in values, culture and beliefs. (Based on Sections 1.1.3, 24.2.4, and 25.1.4 of the Gwich'in Land Claim)

Objectives

- To protect heritage resources in the Gwich'in Settlement Area.
- To support the Gwich'in Social and Cultural Institute in their work to document, preserve, and promote Gwich'in culture.
- To develop and apply the concept of cultural landscapes.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

It is important to the Gwich'in that their heritage resources be taken into consideration when any development is proposed in the Gwich'in Settlement Area and that they are managed in a way that is consistent with Gwich'in values and beliefs. Gwich'in heritage resources include burial and sacred sites, archaeological sites, historic sites and associated artifacts, and documentation and records related to Gwich'in culture and history.⁸ Heritage resources illustrate the close relationship between the Gwich'in culture and the land. These resources need to be protected as they are a record of Gwich'in use and knowledge of the land through time.

The Gwich'in Social and Cultural Institute documents, preserves and promotes the practice of Gwich'in culture, language, traditional knowledge and values. The Gwich'in Social and Cultural Institute's work is revealing that heritage resources can be more than just archaeological or cultural sites. They can be larger landscapes that share similar cultural characteristics. Giving recognition to cultural landscapes has been the focus of several initiatives including Nagwichoonjik National Historic Site on the Mackenzie River, the designation of the Arctic Red River as a Canadian Heritage River, and the Ehdiiat territorial historic site near Aklavik (Red Mountain, Black Mountain, Husky Channel and Rat River).

Some of these areas may merit protection through legislative protection. A legislated protected area designation will provide such sites with long term protection and formal management plans that the Plan can't provide. The concept of cultural landscapes in the Gwich'in Settlement Area should be more clearly defined and protection options for cultural landscapes explored.

As recommended by the Gwich'in Social and Cultural Institute and the communities, the Planning Board has protected heritage sites of special value through the Gwich'in Conservation Zone designation. Other areas in the Gwich'in Settlement Area that are significant for heritage resources have been identified in

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Gwich'in Special Management Zones. In this zone before a development activity can take place certain land use planning conditions must be met that ensure heritage resources are carefully considered.

The work of documenting heritage resources in the Gwich'in Settlement Area by the Gwich'in Social and Cultural Institute is ongoing. At any time they may recommend to the Planning Board that other areas be made a Gwich'in Conservation Zone or Gwich'in Special Management Zone. These changes could be made through amendments at any time if urgent, but most likely will happen during a review of the Land Use Plan.

Gwich'in Heritage and Cultural Resources Action #1	Timeframe
<p>The Planning Board shall consider recommendations by the Gwich'in Social and Cultural Institute regarding cultural and heritage sites during the life of the Land Use Plan.</p> <p>The Board completed a project with the GSCI to compile a list of heritage sites. Further work needs to be done to determine management recommendations for each site. Some specific sites are discussed in the Designated Areas section.</p>	

Gwich'in Heritage and Cultural Resources Action #2	Timeframe
<p>The Board is partnering with the GSCI to begin a project to have the GSCI work with a consultant to establish a process and template for developing site specific management plans. It is hoped that these heritage site management plans will identify conservation goals and match them to available tools.</p> <p>The Board needs to review with the GSCI how the heritage sites that are not designated areas are to be managed. More detailed management plans for all these zones are likely needed as the Plan alone cannot be used to fully manage these sites. (e.g. non-commercial recreation and tourism might affect these areas but the Plan doesn't regulate them since they don't require permits or authorisations.)</p> <p>8-Mile is an example of a Heritage Conservation Zone that needs some immediate management work. A process for GSCI developing such plans, and how they relate to the Land Use Plan, is needed.</p>	2011-12 fiscal

Table 2: Gwich'in Heritage and Cultural Resources References

References	Comment
Traditional Knowledge Policy, Gwich'in Tribal Council	
Travaillant Lake and River, Thunder River, and Cardinal Watershed (Phase 1) Ecological Assessment Gwich'in Settlement Area, Northwest Territories. EBA Engineering Consultants Ltd.	
Beaufort Delta Cumulative Effects Project, M. Kerry Brewin – Project Manager, Dillon Consulting Limited and Salmo Consulting Inc. (February 2005 DRAFT)	
Mackenzie River Basin Board Strategic Plan (winter 2006)	
Porcupine Caribou Management Board (2007-2008 annual report)	
Mackenzie Highway in the Gwich'in Settlement Area (MAP)	
Summary: Recommended Peel River Regional Land Use Plan, Peel Watershed Planning Commission, Whitehorse, Yukon (Feb. 2010)	
Cultural Impacts Assessment Guidelines – status report and request for input, Alistair MacDonald – Environmental Assessment Officer (AMacDonald@reviewboard.ca)	
Cultural in Collision: Traditional Knowledge and Euro-Canadian Governance Processes in Northern Land-Claim Boards Graham White (Vol.59, NO. 4 (December 2006) P. 401-414)	
Potential Spatial Overlap of Heritage Sites and Protected Areas in a Boreal Region of Northern Canada, Shawn J. Leroux, Fiona K.A Schmiegelow, & John A. Nagy. Canadian BEACONS Project, Department of Renewable Resources.	
DRAFT Protected Areas Strategy & Land and Resource Management in the NWT (January 13, 2009)	
National History of the Western Arctic ©Copyright western Arctic Handbook Project 2002	
Canadian Heritage, Indigenous Heritage: Places, meaning and management. (A case study with the Tetlit Gwich'in of Fort MacPherson, NWT) by Melanie Fafard (fall 2006)	

1.2.3 *Water and Air Resources*

Our goal is to provide for the conservation of the environment including water and air, as well as the development and use of these resources for the future well-being of the residents, communities and Gwich'in of the settlement area.

(Based on Sections 1.1.8 and 24.2.4 Gwich'in Land Claim)

Objectives

- To maintain and monitor water and air resources in the Gwich'in Settlement Area for the overall health of the environment.
- To maintain the ability to drink safe water out on the land and eat healthy fish.
- To maintain water at levels that allow Gwich'in to conduct traditional activities.
- To limit the negative effects of activities outside of the Gwich'in Settlement Area on water, air, wildlife and other resources in the Gwich'in Settlement Area.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

The potential of activities outside the region effecting the air quality and water quality and quantity in the Gwich'in Settlement Area is great. Activities that could affect water and air resources in the Gwich'in Settlement Area should be evaluated and effort made to influence regulatory decisions in other jurisdictions. Which Gwich'in organizations and government departments would have a role in this and how they could achieve results needs to be clearly defined.

Water and air uses, in and outside the Gwich'in Settlement Area, include transportation, waste disposal, industrial activities, forest fire control, recreational activities and domestic use.

People are particularly concerned that water quality is becoming poorer in the Gwich'in Settlement Area and will continue to become poorer.³ Up to this point people in the Gwich'in Settlement Area have been able to go out on the land and drink untreated water and eat fish without documented health problems. They are concerned that this won't be the case in the future. They are aware that they are at the bottom end of the Mackenzie River water system and the water here carries contaminants from the south. Making sure water is safe to drink and that fish are healthy is a high priority for communities. They have said "we should do whatever possible to make sure water quality remains good".⁴

Concerns about water stem from lack of detailed information about the status of water quality and quantity. People are concerned that water quality and quantity is not being monitored closely enough in the Gwich'in Settlement Area. The possible closing of water gauging stations due to budget cuts is adding to peoples'

concerns.⁵ There are 12 active stations, and no immediate changes in status expected.⁶ These water gauging stations have been in existence for decades and provide a valuable historical record of water resources. Water management groups should work together to determine the level of monitoring activities required for regional coverage. This would include consistent and long-term operation of water stations and water quality testing.

Some of the issues identified may be resolved by better communication between water management agencies and communities. More information about water quality and quantity needs to be available to communities and other interested groups in plain language. It is difficult to figure out what water testing and monitoring is taking place as there are so many different groups working on water related issues. These groups include municipalities, Department of Aboriginal Affairs and Northern Development, Environment Canada, and the Department of Fisheries and Oceans.

All groups involved in water management and water related issues should provide some basic information in plain language to communities:

- Who is doing water related testing?
- What are the tests for?
- Where are they testing?
- When is it done?
- What are the results?
- Do the results confirm that water is safe to drink and fish are safe to eat?

As there are a number of groups working on water issues, a report on the state of water quality and quantity using all available information would be useful for communities and other resource management groups. While the environmental audit under the Mackenzie Valley Resource Management Act provides some of this information, it is done once every five years.

Water and air monitoring is needed and will continue to be needed to keep track of changes to water and air over time. A Cumulative Impact Monitoring Program is currently being designed for the Gwich'in Settlement Area and the Mackenzie Valley. Co-management, Gwich'in and government groups are working with the Department of Aboriginal Affairs and Northern Development on this monitoring program. Communities are being involved in this process. Community concerns about water and air should be addressed by this monitoring program.

Water and Air Resources Action #1	Timeframe
<p>The Planning Board recommends that as part of the follow-up to the 2011 <i>Dinjii Zhuh Water Summit</i>, The Gwich'in Tribal Council should work with government departments that are mandated for water monitoring and regulation to facilitate the development of a status report on water quality and quantity for the Gwich'in Settlement Area.</p> <ul style="list-style-type: none"> • The report should include a gap analysis to ensure that the necessary water monitoring stations and programs are active 	

Water and Air Resources Action #1	Timeframe
<p>within the Gwich'in Settlement Region.</p> <ul style="list-style-type: none"> • Communities should be provided with the most recent information on water quality and quantity (in plain language) <p>When the Land Use Plan was approved in 2003, the GLWB was listed as the recommended agency given their requirement for this information when evaluating possible impacts of proposed activities. Since then, the Planning Board recognises that co-operation between the GTC, Environment Canada, AANDC and the GNWT will be necessary, given governments' existing legal obligations, mandates and programmes under various legislation.</p> <p>Maybe this is/should be part of the NWT water strategy.</p>	

Water and Air Resources Action #2	Timeframe
<p>The Planning Board recommends that AANDC resource and implement the NWT Cumulative Impact Monitoring Program such that it will:</p> <ul style="list-style-type: none"> i) Address land, water and air quality concerns of all four settlement area communities; and ii) Involve communities in the actual monitoring of land, water and air resources. <p>This is really only stating generally that the CIMP needs to be implemented such that it is able to achieve the intent of the MVRMA.</p>	

Water and Air Resources Action #3	Timeframe
<p>The Planning Board shall review the findings of the NWT Cumulative Impact Monitoring Program with respect to land, water and air during each five-year review of the Gwich'in Land Use Plan, and will integrate the Programs' recommendations/information into the Plan.</p>	

Water and Air Resources Action #4	Timeframe
<p>The Planning Board will keep informed of Legislation initiatives for Water Quality and Air Quality and evaluate against any policy and zoning in the Plan.</p> <p>This action is tied to the requirement of water remaining “substantially unaltered” from the new regional condition in the Plan (mirroring the GCLCA).</p>	

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Water and Air Resources Action #4	Timeframe
<p>The NWT Land and Water Boards are working on best practices and guidelines to address the lack of legislated standards for water and air quality.</p>	

Water and Air Resources Action #5	Timeframe
<p>The Planning Board will undertake a project to establish a template for community water monitoring programs in the region. It will include investigating potential partnerships and available resources for long term water quality and quantity monitoring.</p>	

Water and Air Resources Action #6	Timeframe
<p>The Planning Board would like to see watersheds mapped with greater detail than is currently available.</p> <p>This information would allow the Planning Board to produce more detailed zoning, and regulators to assess potential impacts from larger developments more accurately.</p> <ul style="list-style-type: none"> • Find out if this is an AANDC water resources department mandate and whether work is planned. • Check NWT water strategy to see if a similar initiative is already described in it. 	

Table 3: Water and Air Resources References

References	Comment
Oil and Gas Approvals in the Northwest Territories- Gwich'in Settlement Area-, the Regulatory Roadmaps Project, Erlandson & Associates consultants (February 2002)	
Travaillant Lake and River, Thunder River, and Cardinal Watershed (Phase 1) Ecological Assessment Gwich'in Settlement Area, Northwest Territories. EBA Engineering Consultants Ltd.	
Beaufort Delta Cumulative Effects Project, M. Kerry Brewin – Project Manager, Dillon Consulting Limited and Salmo Consulting Inc. (February 2005 DRAFT)	
Scenarios of Future Developments in Cumulative Effects Assessment: Approaches for the Mackenzie Gas Project, Lorne Greig, ESSA Technologies Ltd. & Peter Duinker, Dalhousie University. (March 12, 2007)	
Highlights of the Mackenzie River Basin Board's (2003 Report)	
Mackenzie River Basin Board Strategic Plan (winter 2006)	
Mackenzie Valley Highway- May 2010 community meetings, Nehtruh – EBA Consulting Ltd.	
A Framework for determining whether a Proposed Development is likely to be cause of significant public concern, Mackenzie Valley Environment Impact Review Board, Manager of Environmental Impact Assessment (Martin Haefele)	
CCME Consultation on Environmental Assessment (EA) Processes, ENR/GNWT	
Summary, Peel River well inspection program, (June 21, 2004) Richard Corbet & Debra Wortley	
AANDC's Sustainable Development Strategy 2004-2006, Bob Overvold	
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Northern Voices, Northern Waters – NWT water stewardship strategy DRAFT (May 25, 2010) www.enr.gov.nt.ca	
A citizen's guide to INAC's Environmental stewardship roles in the NWT	
Indian and Northern Affairs Canada, Board Forum (November 12, 2010) THE PEEL PETROLEUM PROJECT & HYDROLOGY AND NORTHERN PIPELINES: HAZARDS AND ENVIRONMENTAL PROTECTION	
INAC – re: Proposed Regulatory Amendment – Northwest territories water regulations. (December 3, 2010)	
Mackenzie Valley Land and Water Board, Security Deposits under Section 71(1) and Section 17 of the MVRMA and the NWT Waters Act, respectively. (January 28, 2008)	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated June 2007). (Original version February 2002)	

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References	Comment
Federal Environmental Monitoring Programs in the Mackenzie Valley and Selected Areas of Canada, Prepared for Claims Planning & Implementation Office Indian and Northern Affairs Canada, prepared by ESSA Technologies Ltd. (March 29, 1996)	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated February 2005). (Original version February 2002)	
Canadian Water Quality Guidelines for the Protection of Aquatic Life, CCME Water Quality Index 1.0 Technical Report. Canadian Environmental Quality Guidelines & (CCME) Canadian Council of Ministers of the Environment, 2001	
A Canada-wide Framework for Water Quality Monitoring, submitted by: Water Quality Task Group, (July 2006), (CCME) Canadian Council of Ministers of the Environment.	
Government of Canada, Policy Research Initiative, Working paper series 028, Sustainable Development, The Canadian Water Sustainability Index (CWSI) Case Study Report, :Centre for Indigenous Environmental Resources & Anne Morin Policy Research Initiative.(August 2006)	

1.2.4 *Renewable Resources:* *Wildlife, Fish, Forests, Vegetation and Energy*

Our goal is to provide for the conservation, development and use of renewable resources while:

- protecting and conserving wildlife and environment; and
- protecting and promoting the existing and future well-being of the residents, communities and Gwich'in of the settlement area.

(Based on Sections 24.2.4 and 1.1.8 of the Gwich'in Land Claim)

Wildlife and Fish Objectives

- To maintain biodiversity and to manage wildlife and fish populations for desired numbers and health.
- To protect critical and sensitive wildlife and fish areas through land zoning and management plans.
- To involve communities in decision making about wildlife and fish management.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

In consultation with the Gwich'in Renewable Resource Board, the Renewable Resource Councils and government wildlife management groups, the Planning Board is protecting key wildlife and fish habitat areas through land zones (Gwich'in Conservation Zones and Gwich'in Special Management Zones). Activities are highly restricted in Gwich'in Conservation Zones to remove the risk of development having an impact on the wildlife and fish in those zones. In Gwich'in Special Management Zones, conditions on activities have been placed by the Planning Board that will allow development with low risk to the wildlife and fish in those zones. The Planning Board will review these conditions on a regular basis and make changes to reflect traditional knowledge, new scientific information, and new development technologies.

In the integrated resource management system under the MVRMA and Gwich'in Claim, land zoning is only one tool to deal with wildlife and fish concerns. Wildlife and fish uses such as harvesting can't be addressed through the Gwich'in Land Use Plan. The Gwich'in Renewable Resource Board and local communities can deal with harvesting issues and may set harvesting quotas if necessary. Wildlife and fish management plans are being developed by the Gwich'in Renewable Resource Board and government departments with responsibilities for fish and wildlife management. These management plans will provide direction on

issues such as harvesting and commercial activities such as sport hunting and outfitting.

Once wildlife and fish management plans are complete, the Planning Board will review them and consider how to integrate the wildlife and fish management plans with the Gwich'in Land Use Plan. The Planning Board may make changes to the Gwich'in Land Use Plan through exceptions and amendments or during the five year review of the Land Use Plan. The Board will do the same with any species recovery strategies produced through the Species at Risk Act processes.

Forest and Forest Resources Objectives

- To practice sustainable forestry that places priority on subsistence uses.
- To maintain biodiversity.
- To support non-timber uses of the forest.
- To promote more community involvement in forest management.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

The main issue for forest management in the Gwich'in Settlement Area is sustainable use. All groups want to make sure there are healthy forests and trees available in the future. The issue of sustainable use of forests and all other forest resources will be addressed by the development of a Forest Management Plan (Gwich'in Tribal Council and Renewable Resource Councils, Gwich'in Renewable Resource Board and the Department of Resources, Wildlife and Economic Development).

The communities will be directly involved in the development of Forest Management Plans. Some of the issues a Forest Management Plan may address include:

- biodiversity and wildlife habitat concerns
- traditional uses and cultural values of forests and plants,
- forest fire management,
- non-timber forest uses (such as commercial mushroom harvesting),
- community forest harvesting zones, and
- a process for monitoring how much firewood is being harvested and where.

Once Forest Management Plans are completed, the Planning Board will review the plans and consider how to integrate them with the Land Use Plan. The Planning Board may make changes to the Gwich'in Land Use Plan through exceptions and amendments or during the five year review.

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The Gwich'in Land Use Plan does provide protection for some forest areas through land zoning. In the following areas, with significant forest resources, commercial forest harvesting is not allowed:

- Travaillant Lake, Mackenzie/Tree River Gwich'in Conservation Zone
- Jackfish Creek Gwich'in Heritage Conservation Zone
- Bernard Creek Gwich'in Heritage Conservation Zone

Communities listed forests specifically as one of the reasons to protect these areas.

Renewable Resources Action #1	Timeframe
The Planning Board will investigate local seed source options to maybe further refine new regional condition for native species.	

Renewable Resources Action #2	Timeframe
<p>The Planning Board will investigate policy concept of a 2 km no-cut buffer around communities for commercial forestry in the next 5-year review of the Plan.</p> <p>This comes from a comment from GRRB based on their consultation for the Forestry management Plan.</p>	

Energy Objectives

- To promote the use of renewable sources of energy for increased self-sufficiency.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

There are various reasons to use alternative sources of energy such as solar power and wind power. The cost of fuels like oil and gas remain high in the Gwich'in Settlement Area and in some communities there are few forest resources available nearby. Although not widely used, solar and wind power have been used successfully at a number of camps as a supplement to oil and wood fuels.

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Renewable Resources Action #3	Timeframe
<p>The Planning Board will continue monitoring Management plan updates for elements to incorporate into the Land Use Plan.</p> <p>Set up process with GRRB, ENR, CWS, DFO to ensure the Planning Board is on distribution lists and the agencies are considering the Plan as a potential policy implementation tool.</p> <p>Note: These plans will include Coney Management Plan, Rat River Biodiversity and Cultural Assessment Report, Moose Management Plan, draft Grizzly Bear management plan, Porcupine Caribou Herd Management Plan, other caribou management plans. The Forest Management Plan will be reviewed as part of this action item. The Planning Board would like to see locations and recommendations for old growth forests included in this management plan.</p>	

Renewable Resources Action #4	Timeframe
<p>The Planning Board recommends that the Aurora Research Institute, the Department of Energy and Natural Resources, and other energy related agencies continue to investigate and support the use of alternative sources of energy.</p> <p>Contact Aurora Research Institute, ENR, and ITI to ask about progress on alternative energy sources (territorial strategy)</p>	

Renewable Resources Action #5	Timeframe
<p>The Planning Board will investigate the status of the NWT Biodiversity Action Plan. Follow-up may include evaluating any new projects or information for relevance to the Land Use Plan.</p> <p>A multi partied NWT Biodiversity Team continues to work on the NWT Biodiversity Action Plan (NWT BAP). The NWT BAP includes a report on current activities related to biodiversity in the NWT, a web-page (www.nwtwildlife.rwed.gov.nt.ca/Biodiversity/default.htm) with access to the Companion of the NWT Biodiversity Action Plan, background material in an archive, and information on the NWT Biodiversity Team, including schedule and meeting notes, and the Matrix: a searchable list of NWT based activities and initiatives related to biodiversity. The list can be used to quickly find and compare commitments to what is already being accomplished and proposed priorities for the future. Included in a future report will be a gap analysis, recommendations, and proposed future actions. The NWT is linked to the Canadian Biodiversity Strategy whose goals are to improve the understanding of ecosystems and resource management</p>	

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Renewable Resources Action #5	Timeframe
<p>capabilities, education and awareness, incentives and legislation that support the conservation of biodiversity, and improved international cooperation. The Planning Board will ensure that information regarding the Land Use Plan is accurate and up-to-date. We will also monitor the progress of the Action Plan, to determine if any changes to our Strategy are appropriate.</p>	

Renewable Resources Action #6	Timeframe
<p>The Planning Board will continue checking the status of species as listed under the Federal and Territorial Species at Risk Acts (SARA). We will discuss implications on the Plan with the CWS, GRRB and ENR.</p>	

Renewable Resources Action #7	Timeframe
<p>The Planning Board will highlight the actions from the <i>Implementation Plan for the Action Plan for Boreal Woodland Caribou in the Northwest Territories: 2010-2015</i> that are of interest for land use planning purposes into this RPA.</p>	

Table 4: Renewable Resources References

Actions / References	Lead/Participants
Management Plan for Dall’s Sheep in the Northern Richardson Mountains, Gwich’in Renewable Resource Board	
IMG Golder Corporation, Environmental consulting	
Travaillant Lake and River, Thunder River, and Cardinal Watershed (Phase 1) Ecological Assessment Gwich’in Settlement Area, Northwest Territories. EBA Engineering Consultants Ltd.	
Beaufort Delta Cumulative Effects Project, M. Kerry Brewin – Project Manager, Dillon Consulting Limited and Salmo Consulting Inc. (February 2005 DRAFT)	
Scenarios of Future Developments in Cumulative Effects Assessment: Approaches for the Mackenzie Gas Project, Lorne Greig, ESSA Technologies Ltd. & Peter Duinker, Dalhousie University. (March 12, 2007)	
Mackenzie River Basin Board Strategic Plan (winter 2006)	
Draft NWT Hydro Strategy – the foundation for a sustainable energy future. Energy Planning, ITI/GNWT	
A citizen’s guide to INAC’s Environmental stewardship roles in the NWT	
Mackenzie Valley Environmental Impact Review Board, Strategic Plan 2008/2009 to 2010/2011	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated February 2005). (Original version February 2002)	
Commissioner of the Environment and Sustainable Development, Protecting the Environment and Promoting Sustainable Development	
Environment Canada, Canadian Wildlife Service Occasional paper 114: Key Migratory Bird Terrestrial Habitats in the Northwest Territories and Nunavut. (August 27th, 2008) http://www.cws-scf.ec.gc.ca/publications/papers/114/index_e.cfm	
New NWT wildlife Act, ENR GNWT (June 22, 2010) Booklet	

1.2.5 *Non-Renewable Resources:*

Oil, Gas, Minerals, Sand, Gravel and Crushed Rock

Our goal is to provide for the development and use of non-renewable resources while protecting and promoting the existing and future well being of the residents, communities, and Gwich'in of the settlement area as well as having regard to the interests of all Canadians. (Based on Sections 1.1.4, 24.2.4 of the Gwich'in Land Claim)

Objectives

- To promote development of non-renewable resources for the maximum benefit of people in the Gwich'in Settlement Area and of all Canadians.
- To promote development of non-renewable resources in a way that maintains land, water, air, wildlife and heritage resources.
- To ensure there are rehabilitation plans for all non-renewable resource development sites including pits and quarries.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

People would benefit from the development of non-renewable resources in the Gwich'in Settlement Area. Communities want to directly benefit from non-renewable resource activities through employment, businesses, training, and compensation for the use of lands and resources¹⁶. In addition, developments provide non-renewable resources required both within and outside of the settlement area.

Historically, community concerns about oil and gas or other non-renewable resource activities were more than environmental issues. It was also that activities took place on Gwich'in traditional lands without the Gwich'in being involved in regulatory decision-making or compensated for the use of land. Today, Gwich'in have the right under the Gwich'in Land Claim to:

- be compensated for the use of resources,
- negotiate access and benefits agreements for use of Gwich'in lands, and
- participate in resource management decision-making.

The oil and gas sector has been fairly quiet while the Mackenzie Gas Project is in the regulatory review phase. A decision whether to construct the 1200 kilometre natural gas pipeline from the Mackenzie Delta to Alberta is expected in late 2013, with gas flowing at the earliest in 2018. If construction proceeds, exploration activities are likely to increase.

Mineral development on a large scale isn't occurring in the Gwich'in Settlement Area. There is some prospecting taking place in the headwaters of the Arctic Red

River which is likely primarily for lead, zinc and rare earth elements. Prospecting for diamond sources is happening in the east half of the GSA.

Granular materials such as sand, gravel and crushed rock will continue to be in demand in the Gwich'in Settlement Area. These materials are needed for the widening and general maintenance of the Dempster Highway as well as community projects. Sand, gravel and rock management plans are needed for both Gwich'in Settlement Lands and government land (Crown land).⁷ The management plans should deal with:

- The demand by communities for sand and gravel for infrastructure and construction,
- the demand for materials for highway maintenance and construction, • other materials (such as carving stone) in the Gwich'in Settlement Area,
- the rehabilitation/restoration of abandoned and existing pits, and
- environmental impacts (including cultural and socio-economic) along the Dempster corridor.

The need for large areas for non-renewable resource exploration has been considered by the Planning Board when developing land zoning. Non-renewable resource activities are excluded only from 11% of the settlement area. These lands have resources identified by communities and management groups as having outstanding value. Clearly identifying where non-renewable resource activities will significantly conflict with other land uses or values allows developers to focus on areas where they are more likely to have success in getting regulatory approvals.

The information base of non-renewable resources of the Gwich'in Settlement Area is very limited. This lack of knowledge makes it difficult to evaluate the pros and cons of proposed protected areas. The Board encourages industry and government to take steps to improve the information base so that the Board can work with the planning partners to make informed decisions about the future well-being of residents.⁸ The Board will review new information on mineral resources as it is available and look at how to integrate it into the Land Use Plan.

Non-Renewable Resources Action #1	Timeframe
<p>The Planning Board recommends that with the consent of the landowners, the Department of Aboriginal Affairs and Northern Development and the Department of Energy and Natural Resources initiate a review of oil and gas resources of the Gwich'in Settlement Area to promote the economic well being of the Gwich'in.</p> <p>Follow – up to see what GNWT and AANDC are doing with their oil and gas potential mapping. (are they being refined with more detail, how are they being use to promote economic development?)</p>	

Non-Renewable Resources Action #2	Timeframe
<p>The Planning Board recommends that the Gwich'in Tribal Council and the Department of Aboriginal Affairs and Northern Development, in conjunction with other government agencies, and in consultation with the mineral industry, initiate a review of the mineral resources of the Gwich'in Settlement Area to promote the economic well being of the Gwich'in.</p> <p>Follow – up to see what GNWT/AANDC are doing with their mineral potential mapping.</p> <p>Some research was done by the NWT Geoscience Office on non-renewable resource potential within conservation zones as part of the original plan approval process. Unfortunately, these are the areas that the communities <i>least</i> want to develop, rather than the areas they <i>most</i> want to develop (it is federal government policy to ensure that for the interest of all Canadians, important economic considerations are taken into account before land is permanently withdrawn. Even though these lands are not permanently withdrawn, AANDC decided to extend the policy to the Gwich'in Conservation Zones). Detailed research needs to be expanded to the areas that are not conservation zones.</p>	

Non-Renewable Resources Action #3	Timeframe
<p>The Planning Board recommends that sand, gravel and rock (crushed rock and carving stone) management plans be prepared for public and private lands in the Gwich'in Settlement Area that would include:</p> <ul style="list-style-type: none"> • Specific management plans for operating pits • An inventory of regional granular resources - existing and potential. (e.g. sand, gravel, rock, etc.) • Identification of priority sources for current and future community needs <p>The Gwich'in Tribal Council would be responsible to prepare a sand, gravel and rock (crushed rock and carving stone) management plan for Gwich'in Settlement Lands, and the Department of Aboriginal Affairs and Northern Development responsible to prepare one for crown lands in the Gwich'in Settlement Area. There should be coordination of efforts so that the combined plans are consistent and consider the whole inventory of granular resources for the region together.</p> <p>The GNWT departments of Public Works, Municipal and community Affairs, Transportation, and Housing jointly produced <i>NWT Granular Resource Directory</i> (March 2009). Good start, but needs to be expanded in scope.</p>	

Non-Renewable Resources Action #3	Timeframe
<p>Discussion: This recommendation has become more critical with potential pipeline and all-weather road projects (Inuvik to Tuktoyaktuk, Aklavik solid waste site access, Mackenzie highway extension). A regional approach to developing granular resources is needed. Community concerns regarding distance to granular resources must be included in the plans. AANDC has a Granular Resource Management Plan in the Inuvialuit Settlement Region, were an MOA to work together was signed by IRC and AANDC’s NWT Regional Director General. While the Board has had some discussion with GTC and AANDC about this same approach for the GSA, things have not really progressed.</p> <p>The GTC has drafted two site-specific plans. The “Willow Creek (site 467) Development and Reclamation” (pit management plan) and one for Frog Creek. The GTC is now working on a plan for the Midway Lake pit. The GTC policy is to develop management plans for all operating pits on Gwich’in Settlement Lands.</p> <p>The Board had consultants prepare a ‘best practices’ for pit management plans report. The Board needed background information on the topic to assist them with planning decisions, and as a tool for further discussions with AANDC and GTC about requiring plans on all pits.</p>	

Non-Renewable Resources Action #4	Timeframe
<p>The Planning Board recommends that the Department of Aboriginal Affairs and Northern Development plan for the clean-up of abandoned and old pits that have not been rehabilitated. This includes the installation of barriers to access.</p> <p>Find out about status of the clean-up of abandoned and old pits with AANDC</p>	

Table 5: Non-Renewable Resources References

References	Comment
Oil and Gas Approvals in the Northwest Territories- Gwich'in Settlement Area-, the Regulatory Roadmaps Project, Erlandson & Associates consultants (February 2002)	
Travaillant Lake and River, Thunder River, and Cardinal Watershed (Phase 1) Ecological Assessment Gwich'in Settlement Area, Northwest Territories. EBA Engineering Consultants Ltd.	
Beaufort Delta Cumulative Effects Project, M. Kerry Brewin – Project Manager, Dillon Consulting Limited and Salmo Consulting Inc. (February 2005 DRAFT)	
Scenarios of Future Developments in Cumulative Effects Assessment: Approaches for the Mackenzie Gas Project, Lorne Greig, ESSA Technologies Ltd. & Peter Duinker, Dalhousie University. (March 12, 2007)	
Strategic planning template for Northwest Territory Resource Management, Advisory, and environmental assessment Boards, Strategic plan 2006/2007-2008/2009	
BEAHR-Learning Institute, National Occupational standards for environmental Site Assessment Assistants	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated February 2005). (Original version February 2002)	
Report of the Auditor General of Canada to the House of Commons (April 2005) Chapter 6 – Indian and Northern Affairs Canada – Development of non-Renewable Resources in the Northwest Territories.	
The NWT Granular Users Forum, summary report (September 27 & 28, 2006) Yellowknife, NT Submitted to Indian and Northern Affairs Canada, Submitted by: Terriplan Consultants (March 2007)	
Identification of the Biophysical Information and Research Gaps Associated with Hydrocarbon Exploration, Development and Transmission in the Mackenzie Valley: Gwich'in & Sahtu (Norman wells) Community workshop results, (March 3-5, 2003) reference GLL 22-649(December 22, 2003. Prepared for: Department of Aboriginal Affairs and Northern Development, Government of the Northwest Territories, Environmental studies Research Fund. Prepared by: Gartner Lee Limited in association with Highwood Environmental Management Ltd. - Dr. Chris Burn, Klassen and Associates Ltd. – Joanne Barnaby Consulting.	
cbc.ca – NWT Mineral exploration to rebound (May 2010) by: cbc news	
Exploration and mining geology (second edition) William C. Peters, Published in 1987 by: John Wiley & Sons, Inc	
Northwest Territories granular Resource Directory, Territorial Granular Strategy, Prepared by: Department of Public Works and	

References	Comment
Services, Department of Municipal and Community Affairs, Department of Transportation, NWT Housing corporation (March 2009)	
Regional Geoscience Studies and Petroleum Potential, Peel Plateau and Plain (January 2006), Canada Geological Survey, Northwest Territories Geoscience office, Yukon Geological Survey.	
Seismic shothole drillers' Log-derived thematic GIS, Northwest Territories and Northern Yukon: Bedrock outcrop and subcrop, Geohazards, and Muskeg thickness. I.R. Smith and K.Lesk-Winfield (2010) Geological Survey of Canada (open file 6410), Natural Resources Canada.	
Drift Isopach, and Till facies reconstruction for Northwest Territories and Northern Yukon. I.R. Smith and K.Lesk-Winfield (2010) Geological Survey of Canada (open file 6324), Natural Resources Canada.	
A Revised Lithostratigraphic database of baseline geoscience information derived from seismic shothole drillers' logs, Northwest Territories and Northern Yukon, I.R. Smith and K.Lesk-Winfield (2010) Geological Survey of Canada (open file 6049), Natural Resources Canada.	

1.2.6 *Pollution and Waste Management*

To protect and conserve the environment of the settlement area for the well being of present and future generations (Based on Section 1.18 of the Gwich'in Land Claim)

Objectives

- To identify and address existing waste sites in the Gwich'in Settlement Area.
- To minimize waste sites and air, water and land pollution in the Gwich'in Settlement Area.

Issues and Analysis

Waste sites and pollution left over from past development activity are concerns in the Gwich'in Settlement Area. The remediation of contaminated sites on public land is managed by Indian and Northern Affairs' Contaminated Sites Management Program Office in Yellowknife. The Department of Indian and Northern Affairs works with limited funding so prioritizes sites with immediate health and safety concerns and liabilities. Communities want to see all waste sites identified, cleaned-up and restored to their natural state.

Concern around pollution and waste is not limited to development sources. Many times garbage can be seen along both ice roads and regular roads. There is also garbage and other wastes found at many camp sites. Some community members would like to see all sites with garbage in the settlement area cleaned-up. A policy or "code of good conduct" should be developed for all land users to ensure garbage is disposed of properly. An education campaign has been suggested as a possible strategy for instilling respect for the land.

Some of the pollution and waste found in the Gwich'in Settlement Area does not originate in the area. Pollutants are coming from other parts of Canada and the world through air and water currents. This aspect of pollution and waste management issue is discussed along with climate change under the land use issue 12 Global connections section.

Pollution and Waste Management Action #1	Timeframe
<p>The Planning Board recommends that the Department of Aboriginal Affairs and Northern Development and appropriate industry groups develop strategies for the clean-up of remaining waste sites in the region.</p> <p>The Planning Board will request the latest GIS data on waste sites for the GSA and from AANDC to provide any information and ongoing updates about clean-up strategies. (is reporting to the communities happening / what information materials are available)</p> <p>AANDC considers this an ongoing departmental responsibility. The Board wishes to better understand how it is being addressed, including timeframes, industry involvement and issues regarding unregulated fuel</p>	

Pollution and Waste Management Action #1	Timeframe
<p>storage. The Planning Board understands a review is being done by AANDC as part of the negotiations for devolution. The Planning Board will ask for this information, including the latest GIS data on waste sites for the GSA.</p> <p>The Planning Board hopes that AANDC can make the mapping and reclamation of historic waste sites a priority. Old sumps especially should be assessed or monitored for potential failure due to melting permafrost. Specific concerns were raised about the water quality of the Tree River by a camp owner - it was thought maybe an old sump site near the river is failing creating visible changes to water colour. Follow-up should include the confirmation of nearby old industrial sites or the establishment of a water sampling/monitoring program for the area.</p>	

Pollution and Waste Management Action #2	Timeframe
<p>1. The Planning Board recommends that the Gwich'in Tribal Council, Renewable Resource Councils, Designated Gwich'in Organizations and co-management boards work together to develop strategy for cleaning up camps, hunting and fishing sites, roadside garbage and other areas of litter.</p> <p>A lead needs to be identified and the level of interest established for developing a strategy for cleaning up areas littered by garbage. The real work will be determining the best way of 'getting the message out' and building the support needed to create voluntary compliance.</p> <p>Note: 8-Mile is an area that gets a lot of use. Members of Fort McPherson are concerned about garbage building up there, and particular attention may need to be paid to that area. The ENR officer in Fort McPherson is supposed to conduct cabin assessments and may help address the concerns expressed.</p>	

Pollution and Waste Management Action #3	Timeframe
<p>The Planning Board will investigate monitoring/baseline information that is or should be collected to be able to establish:</p> <ul style="list-style-type: none"> • Thresholds or limits of acceptable change for including in the Plan zoning policy. • If pollution sources are local or transboundary. <p>Having baseline information and/or monitoring programs is an integral part of an effective resource management system. This action will be mentioned in other sections, but with reference to specific types of information requirements.</p>	

Table 6: Pollution and Waste Management References

References	Comment
Oil and Gas Approvals in the Northwest Territories- Gwich'in Settlement Area-, the Regulatory Roadmaps Project, Erlandson & Associates consultants (February 2002)	
Beaufort Delta Cumulative Effects Project, M. Kerry Brewin – Project Manager, Dillon Consulting Limited and Salmo Consulting Inc. (February 2005 DRAFT)	
Scenarios of Future Developments in Cumulative Effects Assessment: Approaches for the Mackenzie Gas Project, Lorne Greig, ESSA Technologies Ltd. & Peter Duinker, Dalhousie University. (March 12, 2007)	
NWT guidance for The Protection of Land, Forest, and Wildlife, Oil and gas seismic exploration, DENR, GNWT, Environment Canada, Indian and Northern Affairs Canada. (draft June 25, 2009)	
Mackenzie Valley Highway- May 2010 community meetings, Nehtruh – EBA Consulting Ltd.	
A Framework for determining whether a Proposed Development is likely to be cause of significant public concern, Mackenzie Valley Environment Impact Review Board, Manager of Environmental Impact Assessment (Martin Haefele)	
Summary, Peel River well inspection program, (June 21, 2004) Richard Corbet & Debra Wortley	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated June 2007). (Original version February 2002)	
Federal Environmental Monitoring Programs in the Mackenzie Valley and Selected Areas of Canada, Prepared for Claims Planning & Implementation Office Indian and Northern Affairs Canada, prepared by ESSA Technologies Ltd. (March 29, 1996)	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated February 2005). (Original version February 2002)	
INAC – Environment & Natural Resources – Contaminants (date modified: 2009-02-13)	

1.2.7 Transportation, Utilities and Communication

Our goal is to promote activities related to transportation, utilities and communication for the existing and future well being of the residents, communities and Gwich'in of the settlement area and Canadians generally. (Based on Sections 1.1.4, 24.2.4 of the Gwich'in Land Claim)

Objectives

- To improve networks supporting transportation, communication and utilities for social and economic benefit.
- To promote continued use of traditional trails and transportation corridors.
- To promote transportation, communication and utilities which minimize environmental impacts.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

Transportation and communication networks play a significant role in the economy and life of the people of the Gwich'in Settlement Area.²⁷ Major transportation avenues include air travel with jet access to Inuvik, barging and boating on the larger rivers, as well as road access on the Dempster Highway. The Dempster Highway is open year round except for short periods in the spring and fall when the river crossings change between barge and ice road.

Widening and maintenance of the Dempster Highway will likely be the focus of transportation activities in the next five years. An ongoing concern heard from the communities is the existing ferry landings on the Peel and Mackenzie Rivers servicing the Dempster Highway. Many people are worried about all the gravel used at the ferry landings every year having an effect on water resources and fish.

A possible corridor for the extension of the Mackenzie Highway is identified in the Gwich'in Land Claim. Schedule XVII in Appendix F (volume 2) of the agreement, is a notice of intent for the expropriation of Gwich'in lands for the proposed Mackenzie Highway. Reference is made to a potential route identified in a provisional contract package from 1977, but the final alignment will be determined after more engineering studies and subject to consultation and negotiation with the Gwich'in Tribal Council. Even without a specific route, a Mackenzie Highway extension is considered a permitted use in all zones of the Plan because of this provision in the Gwich'in Land Claim. It will still require regulatory approvals.

The proponent for a highway extension is expected to be the Government of the Northwest Territories Department of Transportation. Once they have determined the route and met the terms of the Gwich'in Comprehensive Land Claim

Agreement, the Board shall review the Land Use Plan to assess the impact of the highway on other land uses and may propose amendments.

Industry has expressed interest in connecting significant oil and gas reserves in the Mackenzie Delta – Beaufort Sea region with southern markets by pipeline since the 1970’s. The Mackenzie Gas Project is a proposed 1200 kilometre gas pipeline with three anchor fields, and is currently in the regulatory system. A decision whether to construct is expected in late 2013, with gas flowing in 2018 at the earliest. The Planning Board is reviewing, with all other appropriate groups, this proposed pipeline. The Planning Board has been working with the proponents of the Mackenzie Gas Project to ensure conformity with the Plan. A corridor through a Gwich’in Conservation Zone is considered a permitted land use provided that it meets the conditions set out in section 4.7.2 (i).

More detailed land use planning needs to occur in areas where new transportation, utility or communication corridors are proposed. Consideration must be given to potential environmental, cultural, social and economic impacts. As a way to minimize cumulative impacts and access issues, the Planning Board would prefer that transportation and utility projects such as a highway and pipeline be aligned in the same corridor. The Board recognises that there may be limits to the extent this can be done because of safety and engineering requirements, but strongly encourages that the effort be made by proponents that may be involved.

The government of the Northwest Territories has drafted a strategy document for hydroelectric power (hydro). There are 6 plants operating in the southeast NWT. The government is exploring hydro opportunities throughout the territory as a source of energy for communities and industry that is affordable, sustainable, and ‘greener’ than fossil fuels. Hydro development is not expected in the Gwich’in Settlement Area during the next five year cycle of the land use plan. According to the strategy, the development of potential sites will be a slow process and the priority sites are south of the GSA close to the larger communities and industrial projects (such as the diamond mines).

The only new communications infrastructure outside of the communities and within the settlement area during the last five years was the installation of radio towers by NorthwesTel. The Board is not aware of any plans for more activity in the next five years.

Transportation, Utilities, and Communication Action #1	Timeframe
<p>The Planning Board recommends that the Department of Transportation with the involvement of co-management boards, Department of Fisheries and Oceans and community groups co-ordinate a study to address community concerns with the long term effects on fish and water resources of placing gravel in the rivers every year for ferry landings.</p> <p>In 2011, DOT had to prepare a local area monitoring plan as a condition</p>	

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Transportation, Utilities, and Communication Action #1	Timeframe
<p>on the November 2010 renewal of water licences G99L8-001 and G99L8-002 for the Dempster Highway ferry crossings on the Peel River and Mackenzie River. It asks for community reporting on fish harvests in the areas near the ferry crossings and will include monitoring river morphology for the five year term of the licences.</p> <p>Two studies were completed by DOT in October 2003 concerning the ferry landings: <i>Aquatic Effects Study for the Mackenzie and Peel River Ferry Crossings</i>, and <i>Structural Alternatives Study for the Mackenzie and Peel River Ferry Crossings</i>. The Planning Board reviewed the studies to determine if the issue of the redistribution of the granular material was adequately addressed (i.e., is the gravel changing the course of the river), and any other recommendations that need to be taken into consideration in the Plan. The studies indicated the activity at the landings was not causing any significant impacts, and that other structural alternatives were not feasible or cost effective. This is still an issue for the communities.</p>	

Transportation, Utilities, and Communication Action #2	Timeframe
<p>The Planning Board will conduct more detailed land use planning where new transportation and utility corridors are proposed. Potential corridors include the Mackenzie Highway extension and a Mackenzie pipeline corridor.</p> <p>The Planning Board will only conduct more detailed planning along new transportation and utility corridors when there are regulatory applications with enough detail provided.</p>	

Table 7: Transportation, Utilities, and Communication References

References	Comment
Gwich'in Forest Management Plan, Gwich'in Renewable Resource Board	
Travaillant Lake and River, Thunder River, and Cardinal Watershed (Phase 1) Ecological Assessment Gwich'in Settlement Area, Northwest Territories. EBA Engineering Consultants Ltd.	
Beaufort Delta Cumulative Effects Project, M. Kerry Brewin – Project Manager, Dillon Consulting Limited and Salmo Consulting Inc. (February 2005 DRAFT)	
Scenarios of Future Developments in Cumulative Effects Assessment: Approaches for the Mackenzie Gas Project, Lorne Greig, ESSA Technologies Ltd. & Peter Duinker, Dalhousie University. (March 12, 2007)	
Mackenzie River Basin Board Strategic Plan (winter 2006)	
Mackenzie Valley Highway- May 2010 community meetings, Nehtruh – EBA Consulting Ltd.	
Northern Voices, Northern Waters – NWT water stewardship strategy DRAFT (November 2009) www.enr.gov.nt.ca	
A citizen's guide to INAC's Environmental stewardship roles in the NWT	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated June 2007). (Original version February 2002)	
Federal Environmental Monitoring Programs in the Mackenzie Valley and Selected Areas of Canada, Prepared for Claims Planning & Implementation Office Indian and Northern Affairs Canada, prepared by ESSA Technologies Ltd. (March 29, 1996)	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated February 2005). (Original version February 2002)	

1.2.8 *Tourism and Recreation*

Our goal is conserve tourism and recreation resources, and promote the development of the tourism industry, so as to protect and promote the existing and future well being of residents, communities and Gwich'in of the settlement area. (Based on Sections 1.1.4 and 24.2.4 of the Gwich'in Land Claim)

Objectives

- To promote tourism activities in all communities.
- To promote local outfitters and the hiring of local people for tourist activities.
- To conserve highly valued tourism and recreation resources.
- To minimize any negative effects of tourism activities on the environment.
- To promote responsible land and water based recreation by Gwich'in Settlement Area residents.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

As a way of creating a stronger, more diverse economy in the region, more work could be done to draw tourists to the Gwich'in Settlement Area. Local and regional projects that encourage tourism should be supported. One example is the production of the "Western Arctic Handbook". Another is the development of the TransCanada Trail through the Gwich'in Settlement Area.

Attention should be focused on areas of high tourism potential like the:

- Richardson and Mackenzie Mountains,
- Campbell Hills, and
- Mackenzie River and Delta.

Territorial parks could draw tourists into the Gwich'in Settlement Area and should be considered in the future. The addition of some more attractions and services along the Dempster Highway would also support increased tourism. Each community has tourism plans that need to be implemented. Tourists' interests include cultural activities, opportunities to see wildlife and sport fishing and hunting.

Gwich'in want to be part of tourism operations such as guiding and local outfitting. In the Gwich'in Settlement Area, it is the Gwich'in Renewable Resource Board that can establish policies around commercial harvesting and activities related to wildlife, including setting policies for guiding and outfitting and hunting, fishing and naturalist camps and lodges.

There is agreement that tourism activities should happen in an environmentally friendly and culturally sensitive way. There are concerns about the effects of

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tourism activities on the environment and traditional areas. Community concerns about the effects of tourism could be dealt with through a “Tourism Code of Ethics”. A “Tourism Code of Ethics” would outline how tourists should conduct themselves out on the land. Direction could be given to tourists on issues such as heritage sites, garbage disposal, encounters with wildlife and access to Gwich’in Settlement Lands.

Tourism and Recreation Action #1	Timeframe
<p>The Planning Board will establish and maintain communication with ITI regarding initiatives around tourism product development and diversity.</p> <p>This is a general action that contributes to the information needed for the plan reviews and keeping informed about progress on specific actions listed below.</p>	

Tourism and Recreation Action #2	Timeframe
<p>The Gwich’in Tribal Council should produce a management plan for the Campbell Hills that addresses the commercial tourism potential of the area and relationship to Gwich’in Territorial Park. The Planning Board offers to provide any assistance it can.</p> <p>The Board will likely be working primarily with the Nihtat Designated Gwich’in Organisation and Renewable Resource Council. The Planning Board will provide assistance and support for the Nihtat’s planning work where possible.</p>	

Tourism and Recreation Action #3	Timeframe
<p>The Planning Board recommends that the Department of Industry, Tourism and Investment develop, with the assistance of the Gwich’in Tribal Council and co-management boards, a tourism economic plan for the Gwich’in Settlement Area.</p> <p>The GNWT Department of ITI has a mandate in Parks and Tourism. The Planning Board will work with GNWT and appropriate agencies, such as NWT Arts and Tourism, to determine how best to develop a tourism economic plan.</p>	

Table 8: Tourism and Recreation References

References	Comments
Prairie and Northern Region Environment Canada, Species at Risk Biologist Canadian Wildlife Service, Donna Mulders, Donna.Mulders@ec.gc.ca	
Gwich'in Forest Management Plan, Gwich'in Renewable Resource Board	
Management Plan for Dall's Sheep in the Northern Richardson Mountains, Gwich'in Renewable Resource Board	
Traditional Knowledge Policy, Gwich'in Tribal Council	
Travaillant Lake and River, Thunder River, and Cardinal Watershed (Phase 1) Ecological Assessment Gwich'in Settlement Area, Northwest Territories. EBA Engineering Consultants Ltd.	
Mackenzie Valley Highway- May 2010 community meetings, Nehtruh – EBA Consulting Ltd.	
Northern Voices, Northern Waters – NWT water stewardship strategy DRAFT (November 2009) www.enr.gov.nt.ca	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated June 2007). (Original version February 2002)	
A Preliminary State of Knowledge Report of Valued Components for the NWT Cumulative Impact Monitoring Program (NWT CIMP) and Audit, FINAL DRAFT Prepared for NWT CIMP and Audit Working Group. (Updated February 2005). (Original version February 2002)	
An assessment of the need and feasibility of establishing a system of ecological reserves in the northwest territories: a public discussion paper, Prepared for The Policy and Planning Division Department of Renewable Resources Government of the Northwest Territories. Prepared by: Thomas H.D. Nesbitt, Avati Associates. (May 1989)	
Tourism 2010 – A Tourism Plan for the Northwest Territories, GNWT Minister of ITI	

1.2.9 Designated Areas

Our goal is to support the establishment of legislative protected areas so as to protect and promote the existing and future well being of residents, communities and Gwich'in of the settlement area. (Based on Sections 16 and 24.2.4 of the Gwich'in Land Claim)

Objectives

- To work cooperatively to identify complementary legislative protected area tools to support and enhance land use plan zoning and policy.
- To facilitate the establishment of community supported legislative protected areas in the Gwich'in Settlement Area.
- To promote the development of a stronger, more diverse economy for economic stability in the Gwich'in Settlement Area.
- To promote economic activities that complement the skills of the Gwich'in, residents and communities of the Gwich'in Settlement Area.
- To recognize and encourage the cultural and economic relationship between the Gwich'in and the land.

Issues and Analysis

The secretariat for the Northwest Territories Protected Areas Strategy definition of a protected area is based on the International Union for the Conservation of Nature (IUCN) definition, namely: *An area of land or sea especially dedicated to the protection and maintenance of biological diversity, and its associated natural and cultural resources, managed through legal or other effective means.* Under the strategy, the purpose of a protected area is to recognise specific natural and cultural values and to preserve areas representative of each ecoregion.

Designated protected areas can offer long term management where the goals and policy are not likely to vary much over time. The land use planning process looks at the long term but is meant to be adaptive. The processes for exceptions and amendments to the land use plan may be used at any time to propose changes and the whole plan is reviewed every five years. The degree of flexibility or continuity of conservation measures is an important consideration when choosing between a protected area designation or land use plan zoning that will meet community expectations for management of an area.

Community expectations for conservation measures might also include:

- policy for managing wildlife harvesting.
- establishing interpretative centres or communication activities to promote and celebrate natural and/or cultural features.
- conservation or restoration efforts for on-site resources such as buildings or archaeological finds.
- research and/or monitoring activities.

The level of management presented in this list is not available under land use planning processes. While land use plans may have policy for preventing negative impacts from development activities, designated protected areas might have additional options for the listed conservation measures. The challenge with

this level of management is to match expectations with the right designation and finding adequate funding for implementation.

The NWT Protected Areas Strategy describes a framework to guide work on identifying and establishing designated protected areas. As a community driven process, it is up to the communities and the Gwich'in Tribal Council to decide if they want to put forward any areas for long term legislated protection. The Planning Board will assist in this process where possible.

In addition to deciding whether a legislated protected area is needed, thought has to be given to how to integrate the potential designation into the land use plan. Some types of protected areas do not allow multiple land uses. These legislated protected areas would likely not conform to the Gwich'in Land Use Plan if established in a General Use Zone or a Special Management Zone where multiple uses are allowed. For example, if a territorial park was proposed in a General Use Zone, an amendment to the Gwich'in Land Use Plan would be required from the Planning Board. Non-restrictive types of designations, like National Historic Sites that make allowances for multiple uses, would not require an amendment to the Gwich'in Land Use Plan. As establishing a legislated protected area can take several years, these areas would be incorporated into the Plan document during the next scheduled comprehensive review.

Ecoregion Representation

Ecoregions are relatively large areas with similar climate, plants and geology. The major ecoregions in the settlement area are the: Mackenzie Delta, British-Richardson Mountains, Great Bear Lake Plain, the Peel River Plateau, the Fort McPherson Plain and the Mackenzie Mountains.⁹

The PAS secretariat is working to identify representative areas that contain samples of all living things and types of landscapes found in each ecoregion of the Northwest Territories. If protected from development, these representative areas or biological reserves help to provide stable habitat for most of the plants and animals throughout the rest of the ecoregion. They can also be used as reference sites for measuring the effects of development activities in other parts of the ecoregion.

In the next five years the Board will work with the Protected Area Strategy Secretariat to identify potential representative sites and long term monitoring programs for each ecoregion in the GSA. All the ecoregions are transboundary and may be possibly represented outside of the Gwich'in Settlement Area, but the Board feels it is worth investigating options for sites within the GSA. In theory, several representative areas where no development is allowed, where large scale ecological processes are maintained, there is movement between protected areas, surrounding areas have well managed, responsible development, should be able to maintain healthy habitats and species.

There are only two ecoregions containing a legislated protected area within the Gwich'in Settlement Area. The Gwich'in Territorial Park is on the border between the Mackenzie Delta and the Great Bear Lake Plain. It is likely too small and is without a monitoring program so not an effective representative area as it currently exists. From the preliminary modelling done by the PAS secretariat and zoning in the Plan, there are a few areas that would be good places to start evaluating as potential sites:

- Cardinal Lakes Special Management Zone - Great Bear Lake Plain
- Headwaters of the Arctic Red River Special Management Zone-Mackenzie Mountains
- The Peel River / Vittrekwa River area - Peel River Plateau (could also be a site in the Primary Use Area in Yukon, supported by Peel River Watershed Land Use Plan).
- Ehdiiat Gwich'in Cultural Landscape/Rat River Conservation Zone - Both the Richardson Mountains and Mackenzie Delta

If they meet the criteria for a representative site then it must be matched with a protected area designation or conservation zone designation. Potential sources of support for any monitoring that is deemed necessary will have to be found. The Cumulative Impacts Monitoring Program could be investigated as an option.

Cultural and Natural Values

Within the Gwich'in Settlement Area there are four bands: Ehdiiat Gwich'in (Aklavik), Gwichya Gwich'in (Tsiigehtchic), Nihtat Gwich'in (Inuvik), and Teetl'it Gwich'in (Fort McPherson). Protected areas that celebrate each of the bands' culture and history are needed to reflect all of Gwich'in culture and provide a way to share it with the rest of Canada.

Currently, the Gwichya Gwich'in are recognized through the

- Nagwichoonjik (Mackenzie River) National Historic Site,
- Arctic Red River heritage river designation,
- Vik'ooyendik (Church Hill) NWT heritage site
- Khaii Luk Tshik (Travaillant Creek) NWT Heritage Site
- Teetshik Goghaa (Old Arctic Red) NWT Heritage Site

The Teetl'it Gwich'in have an opportunity to present their history through the

- Nataiinlaih (eight miles) Campground and town's visitor centre which is now part of a larger area of the Nataiinlaih NWT Heritage Site
- Nagwichoo Tshik (mouth of the Peel village)

The Nihtat Gwich'in have opportunities for cultural promotion at the Western Arctic Regional Visitors Centre and Gwich'in Territorial Park.

The following *NWT Heritage Sites* important to the Ehdiiat Gwich'in share the rich history associated with Aklavik:

- Pokiak
- Knut Lang's Place
- Constable Millen's Cairn

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- Chigwaazraii, Sreih Nitsik, Ddhah Zhit Han and Eneekaii Han - Ehdiitat Gwich'in Cultural Landscape (includes Big Eddy, Black Mountain, Fish Hole, and Red Mountain - which are contained in Conservation Zone A)

The Planning Board will continue work with the Gwich'in Social and Cultural Institute to ensure the land use plan matches the communities' objectives for the above sites. The Planning Board has identified a few areas in the Gwich'in Settlement Area where other designations may be considered:

- Headwaters of the Arctic Red River The Gwichya Gwich'in have told the Board that they would like to see the headwaters of the Arctic Red River managed so that water quality and quantity of the river doesn't change. This may also be an area where a legislative protected area is appropriate. However, at the present time there is not enough scientific or traditional knowledge available to be able to properly evaluate long term protected area designations. More information needs to be collected during the next five year period of the Gwich'in Land Use Plan
- Keep informed of the status of Mackenzie River Nomination as a Canadian Heritage River.
- Work with GSCI to evaluate places listed in the Heritage Sites Compilation report for sites for ones that need protection from development through Heritage Conservation Zone status. The GSCI has explained that for the Teetl'it and Nihtat sites, they will need to initiate a process to interview elders and conduct a mapping and literature review.¹⁰
- Work with GSCI to investigate creation of Site Specific Management Plans for heritage sites
- Investigate options for protecting/managing paleontological finds (lack of legislation identified by GSCI; e.g. frozen steppe bison and fossils) Determine what type of protection wanted/needed (ownership rules/required site assessments?)

The GSCI and Aklavik Elders identified the following sites as potential Heritage Conservation Zones.

1. Knut Lang's Place (within Peel Channel SMZ)
2. Jim Firth's Place (within Mackenzie Delta SMZ)
3. Fish Hole (within Rat River/Husky Channel/Black Mountain CZ)
4. Big Eddy (within Rat River/Husky Channel/Black Mountain CZ)
5. Historic dog-team trails (need mapping)
6. The Delta (within Rat River/Husky Channel/Black Mountain CZ, Mackenzie Delta SMZ, and the Peel River and Peel Channel SMZ)

The Board will do further work to determine appropriate zoning and policy in the Land Use Plan for these areas over the next five years.

Over the next few years, it is not expected that many new protected area designations will be put forward by the Gwich'in. While the GSCI has been

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working on heritage site designations, there is a lack of resources and available options for many more to receive recognition. The Gwich'in Tribal Council prefers the use of the Land Use Plan for conservation. One reason for this is that there are few legislative options for designated areas, especially when considering resources available from government for implementation. Parks Canada, Environment Canada and the Canadian Wildlife Service have indicated that they do not have the resources for any new protected area initiatives.¹¹

Currently, the Planning Board is collecting more information and discussing long term objectives for important sites as part of our ongoing planning work. Although concentrating on land use plan zoning and policy, we will identify/consider when an area needs and fits within a legislated protected area through this process, or at the direction of the communities.

Designated Areas Action #1	Timeframe
<p>The Planning Board will check on the status of the proposed nomination for Mackenzie River as a Canadian Heritage River.</p> <p>If the nomination is moving forward, the Board will consider how best to incorporate it into the Plan. The idea was put forward by then Premier, Jim Antoine (year ?). Does not seem to be moving forward or have an active proponent.</p>	

Designated Areas Action #2	Timeframe
<p>The Planning Board would like stay informed about specific research needs that are identified for special features and SARA species.</p> <ul style="list-style-type: none"> • Compile into a larger, regional research needs list to avoid duplicated efforts. • who would compile? 	

Designated Areas Action #3	Timeframe
<p>The Planning Board shall take into consideration any detailed plans that the GTC may produce for the management of settlement lands</p> <p>(based in section 41.4 of the MVRMA and section 24.2.7 of the GCLCA)</p>	

Designated Areas Action #4	Timeframe
<p>The Planning Board recommends that Gwich'in Tribal Council and the Department of ITI review the process for establishing and managing territorial parks and review the management of Gwich'in Territorial Park specifically.</p> <p>Detailed planning should be done for the Campbell area and should include a review of park management.</p>	

Designated Areas Action #5	Timeframe
<p>The Planning Board recommends that scientific and traditional knowledge studies be conducted in the Headwaters of the Arctic Red River to determine if a legislative protected area or a Gwich'in Conservation Zone under the Land Use Plan should be established in the area. Studies required include:</p> <ul style="list-style-type: none"> • Water quality and quantity, • Wildlife, vegetation and other ecological inventories, • Non-renewable resource inventory and potential analysis, and • Traditional use and heritage resource inventories. <p>The Planning Board will initiate discussions with all the recommended contributing groups. Groups that should be involved in conducting studies include the Planning Board, the Gwich'in Renewable Resource Board, the Gwich'in Social and Cultural Institute, the Gwichya Gwich'in Renewable Resource Council, the Sahtu Land Use Planning Board, the Department of Aboriginal Affairs and Northern Development Canada, and the Department of Environment and Natural Resources.</p> <p>The Board needs to identify what information exists, what research is currently being done and how organizations can best contribute to future studies. How the work relates to the Heritage River designation needs to be kept in mind. The Planning Board will inform the Sahtu Land Use Planning Board of our interest in research in this area, particularly to determine if there is an interest in collaborative research.</p> <p>The studies initiated by the Board that have been conducted to date include:</p> <ul style="list-style-type: none"> • Ecological phase I • Cultural phase I and II (check on status of phase III which was initiated by GSCI) • Geoscience compilation <p>So far, support for the studies has been available through the implementation of the Protected Areas Strategy.</p>	

Table 9: Designated Areas References

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1.2.10 Transboundary Planning and Global Connections

Our goal is to address transboundary issues so as to protect and promote the existing and future well-being of the residents, communities, and Gwich'in of the settlement area. (Based on Sections 1.1.4 and 24.2.4 of the Gwich'in Land Claim)

To protect and conserve the environment of the settlement area for the well being of present and future generations (Based on Section 1.18 of the Gwich'in Land Claim)

Objectives

- To work co-operatively with neighbouring groups for the conservation, development and use of land, water, air and other resources and for the mutual benefit of all groups.
- To monitor non-renewable resource activities in the Peel River Watershed and the Mackenzie Valley.
- To identify and address sources of pollution outside the region that affects the Gwich'in Settlement Area.
- To find ways to work with outside jurisdictions to minimize air, water and land pollution coming into the Gwich'in Settlement Area.
- To raise concerns nationally and globally about the effects of external sources of pollution on the Gwich'in Settlement Area.

Issues and Analysis

Transboundary Planning

There are many transboundary issues with neighbouring areas of Gwich'in Settlement Area (Sahtu Settlement Area, Inuvialuit Settlement Region and the Yukon Territory). Shared resources amongst areas include land, air, water and wildlife. Groups have expressed interest in working together on protected areas, wildlife and water resources, however there are few processes established for cooperation with respect to land use planning.

It is difficult to establish a larger co-operative process as all neighbouring groups are at different stages in managing resources. Both the Sahtu Land Use Planning Board and the Peel Watershed Planning Commission have draft plans. The North Yukon has an approved plan. The Inuvialuit do not have a parallel planning process in place, however, the Planning Board does work with the Inuvialuit groups on various issues. The Planning Board will continue to work co-operatively with these groups individually on planning issues.

Communities are concerned about transboundary issues. Water quality is one of the communities' major concerns, and particularly the downstream effects of activities in the Peel River Watershed in the Yukon Territory and the Mackenzie River Basin on the Gwich'in Settlement Area. Wildlife issues are another area of concern. Caribou migrate, calve and over-winter in various jurisdictions and are of great importance to the Gwich'in. There are many other species that migrate into and out of the Gwich'in Settlement Area.

Research and information should be shared amongst groups. The Planning Board as well as other co-management and Gwich'in groups are interested in monitoring activities outside the Gwich'in Settlement Area that may affect this area. Working together on issues will help avoid duplication of efforts and maximize products.

Global Connections

In the same sense that natural processes are interconnected within an ecoregion, the Earth is an ecosystem with connections between innumerable natural processes. Unfortunately, examples of these connections have been found by tracking pollutants and a recorded increase in average temperatures across the globe. The residents of the Gwich'in Settlement Area have expressed concern for the effects they are seeing here from human activities outside the GSA and the ones they expect to see. Issues connected to sources outside the Gwich'in Settlement Area include:

- *Climate change:* With the average temperatures rising, it is expected permafrost will be melting at an increasing rate. Scientists predict that as the frozen soils in the north melt, stored carbon will be released to the air and will contribute to more climate change. Changes to permafrost will have direct effects on northern roads and building foundations. As the climate changes, the habitats of various species are also expected to change; migration routes will alter and southern species might begin to move north. Because this is such a complex issue, people often feel there's not much they can do to 'fix it' so they focus more on strategies to be able to adapt.
- *Ozone thinning:* It has been recognised since the late 1970's that the ozone in the upper atmosphere which filters out much of the harmful radiation from the sun is thinning. It is most pronounced at the north and south poles. Efforts, such as banning CFC's and other chemicals which are linked to this problem, appear to be slowing the ozone loss and will hopefully allow levels to recover. Scientist have a few theories of how ozone levels at the poles will also be effected by climate change, but aren't sure which is most likely. Monitoring programs seem to in place, and the results should be part of any information updates or discussions on global warming that occur in communities of the Gwich'in Settlement Area.¹²
- *Mackenzie River basin water concerns:* The oil sands development near Fort McMurray, Alberta is a huge project and is still increasing in scale. Many have expressed a lack of confidence that the Alberta regulatory system has appropriate conditions and enforcement in place to manage the risk of contaminants entering the surrounding water system. There are also concerns about the oil sands projects removing large volumes of water out of the Mackenzie River system which will affect the basin downstream. Hydroelectric developments are considered a source of green, renewable energy, but do alter the natural state of a waterway. Residents in the GSA are afraid they may feel negative effects that could potentially occur should there be any new hydroelectric projects in the basin.

- *Peel River Watershed:* The Peel River watershed is part of the Mackenzie River Basin but lies within the traditional territory of the Gwich'in, so is worth highlighting separately. Maintaining the water quality and quantity of the Peel is a high priority for Fort McPherson and Aklavik. The Board is working with the Peel River Watershed Planning Commission to ensure the two planning regions have cooperative land use policies.
- *Airborne pollutants:* Many people in Gwich'in Settlement area rely on country food such as caribou. In recent years, studies have been done to monitor contaminants. One study looked at caribou because lichen, which is the primary food source of caribou, readily absorbs airborne contaminants. People are worried about the effect of pollutants on their health and the environment. Communities want to see the level of contaminants monitored in the settlement area.

Scientists and residents of the north are seeing the effects of climate change more prominently. The Mackenzie Delta is a hot spot for the effects of climate change. Communities have noticed changes on the land that may be related to climate change (water and snow levels, waterfowl numbers, etc.). Every opportunity should be taken to raise concerns nationally and globally about the effects of long range air and water pollutants on the people and environment of the Gwich'in Settlement Area.

Transboundary Planning and Global Connections Action #1	Timeframe
<p>The Planning Board recommends that the Gwich'in Tribal Council and co-management boards work with transboundary groups to monitor activities in the Peel River Watershed in the Yukon Territory and the Mackenzie Valley.</p> <p>GLUPB will find out from the GTC and the Yukon Environmental and Socio-economic Assessment Board (YESAB) what communication mechanisms regarding activities in the Peel exist or might be established.</p> <p>The impacts of activities in the Peel Watershed should be monitored as part of the Cumulative Impact Monitoring Program. The process should include reporting/communication mechanisms to the communities so they know what activities are taking place in the Peel Watershed.</p>	

Transboundary Planning and Global Connections Action #2	Timeframe
<p><i>Peel River Watershed</i> The GSCI had put forward a recommendation for a National Historic Site along parts of the Peel River. This is on hold now but needs to be considered during the land use planning process. The Planning Board will check on the status of the project.</p> <p>Following the PRWAC recommendations, and under the Yukon Land Use Planning Council, a Peel River Watershed Planning Commission was set up in 2005. Membership on the commissions includes a representative of the GTC.</p> <p>The Planning Board supports a cooperative planning process for the entire Peel River Watershed, including the part of the watershed that is in the Northwest Territories. Cooperative planning will mean reviewing, collecting and considering information for the entire watershed. This may result in amending the Gwich'in Land Use Plan to establish complimentary zoning along the border.</p>	

Transboundary Planning and Global Connections Action #3	Timeframe
<p><i>Sahtu Land Use Plan</i> The Planning Board will continue sending the Sahtu Planning Board plan revision information and a copy of this Regional Plan of Action.</p> <p>The Gwich'in Planning Board will stay apprised of work on the draft plan, paying particular attention to the zoning and conditions placed on areas adjacent to the GSA. If deemed necessary, a joint meeting of the Sahtu and Gwich'in Land Use Planning Boards will be requested.</p> <p>The Sahtu Land Use Planning Board is hosting technical workshops in the fall of 2011 to resolve some final issues on Draft 3 of the Sahtu Plan. The plan proposes a similar land zoning system to the Gwich'in Land Use Plan, listing:</p> <ul style="list-style-type: none"> - Conservation areas - Special management areas - Multiple use areas 	

Transboundary Planning and Global Connections Action #4	Timeframe
<p><i>Inuvialuit Settlement Region (ISR)</i></p> <ol style="list-style-type: none"> 1. The Gwich'in Planning Board will continue distributing Plan revision drafts to the Inuvialuit Game Council, the Inuvialuit Regional Corporation, and the Aklavik Community Corporation. 2. The Planning Board will find out status of the process for updating Inuvialuit Community Conservation Plans and ask for copies to review if available. <p>The most obvious area of transboundary issues between the Inuvialuit and the Gwich'in is Parcel A. This block has over 200 square miles of surface and subsurface Gwich'in private lands within the ISR.</p> <p>The Inuvialuit have Community Conservation Plans rather than a regional land use plan. The Community Conservation Plan for Aklavik covers Parcel A. Although this community conservation plan is not a legally binding document, it is intended to provide guidance to all who have an interest in planning and using the area. The Inuvialuit Community Conservation Plans are supposed to undergoing a review, but it is uncertain if this is happening.</p> <p>In addition to the interests of Gwich'in in the ISR, the Inuvialuit also have traditional interests within the GSA. The Planning Board will need to work on a plan-to-plan basis with the Inuvialuit, particularly with the Inuvialuit Game Council, the Inuvialuit Regional Corporation, and the Aklavik Community Corporation.</p>	

Transboundary Planning and Global Connections Action #5	Timeframe
<p>The Planning Board will work with local municipalities and the Department of Municipal and Community Affairs on transboundary issues with respect to municipal boundaries. This includes the following:</p> <ul style="list-style-type: none"> • The Planning Board will send the Community Planning Section of MACA each annual report and a copy of this Strategy. • The planning Board will request the most recent community plans from MACA. <p>The municipal plans are generally done on a rotational basis, set out by MACA. The Planning Board will contact MACA to determine the Gwich'in community planning schedule and process.</p>	

Transboundary Planning and Global Connections Action #6	Timeframe
<p>Mackenzie River Basin Board The Planning Board will contact the MRRB to see if they have any new information. The Planning Board will use new information to evaluate if additional actions are necessary or there are implications for the Plan.</p> <p>A report by the Mackenzie River Basin Board was received in 2004 and considered during the first Plan review. This action is also linked to the Water and Air Section</p>	

Transboundary Planning and Global Connections Action #7	Timeframe
<p>The Planning Board would like to see resource managers in the GSA work together and develop a strategy for dealing with the effects of outside activities on resources in the Gwich'in Settlement Area. To see how this might work the Planning Board will learn more about monitoring and response options associated with climate change.</p> <p>Ecology North has been working with Tsiigehtchic and Fort McPherson on the development of Climate Change Adaption Management Plans. The Planning Board will ask to be kept informed of progress.</p>	

**Table 10: Transboundary Planning and Global Connections
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1.3 Action Plan Summary

All the actions from section 1.2 that are highlighted in boxes are combined into these summary tables. The actions are:

- still grouped by topic,
- summarized by not including the discussion text,
- given another column for identifying a lead and other participants,
- referenced to how the action seems to fit within the Environmental Stewardship Framework

The ten components, or functions, identified by the ESF Steering Committee for effective assessment and management of cumulative effects in the NWT are listed below with the numbering used in the tables for the reference.

1. Vision and Objectives
2. Land Use and Conservation Planning
3. Baseline Studies and Long Term Monitoring
4. Research
5. Environmental Assessment
6. Regulation and Compliance
7. Information Management
8. Capacity Building
9. Coordination
10. Audit and Reporting

The Board feels the RPA is a way to explore opportunities to integrate the multiple resource management processes that are described by the ESF. This first draft provides a starting point for cooperatively building a more comprehensive plan of action with other environmental managers and stakeholders. This set of summary tables is intended to help identify specific lines of communication within or between responsible authorities.

Resource Management Processes Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>1. The Planning Board recommends that all management and regulatory groups work with communities to improve the level of understanding of communities about decision-making processes. Efforts should be coordinated where possible.</p>	<p>/NWT Board Forum members</p>	<p>Ongoing</p>	<p>8,9</p>
<p>2. In order to improve communications in the future, the Planning Board recommends that all management and regulatory groups review on an on-going basis:</p> <ul style="list-style-type: none"> • When and how often they consult with communities, and • How effective they are in involving communities in decision-making. <p><i>Need to inquire about other government initiatives.</i></p>	<p>/NWT Board Forum members, GTC, other government</p>	<p>Ongoing</p>	<p>9,10</p>
<p>3. The Planning Board recommends that the Gwich'in Tribal Council with the involvement of the Designated Gwich'in Organizations develop a long-term economic strategy. This should include developing economic plans for Gwich'in Settlement Lands that have a diversity of options such as tourism, outfitting, and non-renewable resource development.</p> <p><i>Contact GNWT, GTC, and AANDC to find out current initiatives. Will include discussion of request by GTC to rezone subsurface parcels.</i></p>	<p>GTC, DGOs</p>	<p>Ongoing</p>	<p>1,2</p>
<p>4. The Planning Board will continue observing and participating where appropriate in initiatives for fundamental changes to the resource management system such as amendments to legislation/regulation.</p>	<p>GLUPB</p>		<p>6</p>

Resource Management Processes Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>5. The Planning Board recommends that the Cumulative Impacts Monitoring Program be funded and supported such that it fulfils the intent of section 146 of the MVRMA regarding a responsible authority for monitoring Cumulative Environmental Impacts.</p> <p>Related to action #4 in Water and Air Related to action #3 in Pollution and Waste Management</p>	AANDC		3,4,7
<p>6. The Planning Board recommends that co-management boards continue to develop an integrated management system to improve the level of involvement of Gwich'in communities and representative organizations in decision-making processes.</p> <p>Need to re-establish the Gwich'in all-boards meetings.</p>	GTC Implementation Coordinator and Vice-President / the chair and ED of the GRRB, GLWB, GLUPB, GSCI, and the		8,9
<p>7. The Planning Board as part of the Gwich'in Land Use Plan Review will conduct a survey on community involvement in decision-making. The survey will evaluate how well groups have involved communities in decision making about land, water, air and resource management.</p>	GLUPB/GTC		6,10
<p>8. The Planning Board will determine information requirements for continued planning processes. This includes the development of a research plan followed by the collection and analysis of new information.</p>	GLUPB		2,3,4,7
<p>9. Gwich'in, communities and regional organizations have been involved throughout the Plan's development. They will continue to be involved in the implementation of the Plan by:</p> <ul style="list-style-type: none"> The Planning Board will visit each community to discuss the approved revised Plan. 	GLUPB		2,7,9,10

Resource Management Processes Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<ul style="list-style-type: none"> • A newsletter specifically directed to the communities will be published. • At least one staff and Board member will attend the Gwich'in Annual Assembly. • The Planning Board is committed to doing more detailed planning, particularly along proposed highway and pipeline corridors. • In doing more detailed planning or considering plan amendments, the Planning Board will research and put together land use information. The information will be shared with Gwich'in, communities and regional organizations. They will be asked for their feedback and will be asked to contribute additional information. Any draft amendments or decisions based on more detailed planning will be reviewed by Gwich'in, communities and regional organizations and will require the approval of the GTC (before submitting to the GNWT and AANDC for their approval). • Plan Monitoring: Follow-up with regulators like ENR (commercial forestry permits) regarding conformance check processes and decisions 			
<p>Youth Involvement Strategy</p> <p>10. The Planning Board will target youth in the communities for educating them regarding the Land Use Plan and the land use planning process. So far, planned activities include:</p> <ul style="list-style-type: none"> • remind schools of the teachers' resource materials • youth included in planning activities by special invitation • distribution of Gwich'in Atlas to schools once complete <p>Will look at a teachers' guide as a follow-up project to the Atlas. Will approach the GTC and GSCI for potential partnership.</p>	GLUPB/ GSCI, GTC		2,8,9

Resource Management Processes Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>11. The Planning Board will review conditions placed on Gwich'in Special Management Zones and Conservation Zones with the assistance of appropriate groups taking into account traditional knowledge and scientific information.</p> <p>This will include further investigation of the following:</p> <ul style="list-style-type: none"> • conditional approval of commercial activities in CZ • 1000 m setback from mineral licks for any type of tourism infrastructure in CZ • Condition requiring developers to report sightings of mineral licks to the Protected Areas Strategy Secretariat • Uranium policy • Coal Bed Methane and Shale Gas policy • Conditions for forest management (explore need for with communities) 	GLUPB		2,6
<p>12. The Planning Board will approach the PAS Secretariat to do an analysis of the Plan according to ecoregion representation, ecological viability, watershed protection, and rare animal protection. This will assist with more detailed planning for plan reviews.</p>	GLUPB, PAS		2,3
<p>13. The Planning Board will work with communities and the GTC to explore the economic potential for rezoning Gwich'in subsurface lands currently under conservation zoning to allow for development.</p>	GLUPB/ GTC, communities		2

Gwich'in Heritage and Cultural Resources Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
1. The Planning Board shall consider recommendations by the Gwich'in Social and Cultural Institute regarding cultural and heritage sites during the life of the Land Use Plan.	GLUPB, GSCI	Ongoing	2,8
2. The Board is partnering with the GSCI to begin a project to have the GSCI work with a consultant to establish a process and template for developing site specific management plans. It is hoped that these heritage site management plans will identify conservation goals and match them to available tools.	GSCI, GLUPB	2011-12 fiscal	2,8

Water and Air Resources Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>1. The Planning Board recommends that as part of the follow-up to the 2011 <i>Dinjii Zhuh Water Summit</i>, The Gwich'in Tribal Council should work with government departments that are mandated for water monitoring and regulation to facilitate the development of a status report on water quality and quantity for the Gwich'in Settlement Area.</p> <ul style="list-style-type: none"> • The report should include a gap analysis to ensure that the necessary water monitoring stations and programs are active within the Gwich'in Settlement Region. • Communities should be provided with the most recent information on water quality and quantity (in plain language) 	GTC/ENR, EC		3,6,7,9,10
<p>2. The Planning Board recommends that AANDC resource and implement the NWT Cumulative Impact Monitoring Program such that it will achieve the intent of:</p> <ol style="list-style-type: none"> i. Addressing land, water and air quality concerns of all four settlement area communities, and ii. Involving communities in the actual monitoring of land, water and air resources. 	AANDC / CIMP steering committee		3,4,8,10
<p>3. The Planning Board shall review the findings of the NWT Cumulative Impact Monitoring Program with respect to land, water and air during each five-year review of the Gwich'in Land Use Plan, and will integrate the Programs' recommendations/information into the Plan.</p>	GLUPB		2,3
<p>4. The Planning Board will keep informed of Legislation initiatives for Water Quality and Air Quality and evaluate against any policy and zoning in the Plan.</p>	GLUPB		2,6

Water and Air Resources Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
5. The Planning Board will undertake a project to establish a template for community water monitoring programs in the region. It will include investigating potential partnerships and available resources for long term water quality and quantity monitoring.	GLUPB/communities		2,3,8
6. The Planning Board would like to see watersheds mapped with greater detail than is currently available. <ul style="list-style-type: none"> • Find out if this is an AANDC water resources department mandate and whether work is planned. • Check NWT water strategy to see if a similar initiative is already described in it. 	?		2,4

Renewable Resources Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
1. The Planning Board will investigate local seed source options to maybe further refine new regional condition for native species.	GLUPB		2,6
2. The Planning Board will investigate policy concept of a 2 km no-cut buffer around communities for commercial forestry in the next 5-year review of the Plan.	GLUPB / RRC's, ENR, GRRB,		2
3. The Planning Board will continue reviewing Management plan updates for elements to incorporate into the Land Use Plan. Set up process with GRRB, ENR, CWS, DFO to ensure the Planning Board is on distribution lists and the agencies are considering the Plan as a potential policy implementation tool.	GRRB, ENR, CWS, DFO		2,9
4. The Planning Board recommends that the Aurora Research Institute, the Department of Energy and Natural Resources, and other energy related agencies continue to investigate and support the use of alternative sources of energy. Contact Aurora Research Institute, ENR, and ITI to ask about progress on alternative energy sources (territorial strategy)	ARI, ITI, ENR		1,4,8,9
5. The Planning Board will investigate the status of the NWT Biodiversity Action Plan. Follow-up may include evaluating any new projects or information for relevance to the Land Use Plan.	GLUPB		2
6. The Planning Board will continue checking the status of species as listed under the Federal and Territorial Species at Risk Acts (SARA). We will discuss implications on the Plan with the CWS, GRRB and ENR.	GLUPB, CWS, GRRB, ENR		2,9

Renewable Resources Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
7. The Planning Board will review and note the actions from the <i>Implementation Plan for the Action Plan for Boreal Woodland Caribou in the Northwest Territories: 2010-2015</i> that are of interest for land use planning purposes into this RPA.	GLUPB		2,9

Non-Renewable Resources Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>1. The Planning Board recommends that with the consent of the landowners, the Department of Aboriginal Affairs and Northern Development and the Department of Energy and Natural Resources initiate a review of oil and gas resources of the Gwich'in Settlement Area to promote the economic well being of the Gwich'in.</p> <p><i>GLUPB to follow – up to see what GNWT and AANDC are doing with their oil and gas potential mapping.</i></p>	AANDC, GNWT		2,4,8,9
<p>2. The Planning Board recommends that the Gwich'in Tribal Council and the Department of Aboriginal Affairs and Northern Development, in conjunction with other government agencies, and in consultation with the mineral industry, initiate a review of the mineral resources of the Gwich'in Settlement Area to promote the economic well being of the Gwich'in.</p> <p><i>Follow – up to see what GNWT/AANDC are doing with their mineral potential mapping.</i></p>	GTC, AANDC, others		2,4,8,9
<p>3. The Planning Board recommends that sand, gravel and rock (crushed rock and carving stone) management plans be prepared for public and private lands in the Gwich'in Settlement Area that would include:</p> <ul style="list-style-type: none"> • Specific management plans for operating pits • An inventory of regional granular resources - existing and potential. (e.g. sand, gravel, rock, etc.) • Identification of priority sources for current and future community needs 	GTC and AANDC		2,4,7,9

Non-Renewable Resources Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>4. The Planning Board recommends that the Department of Aboriginal Affairs and Northern Development plan for the clean-up of abandoned and old pits that have not been rehabilitated. This includes the installation of barriers to access.</p> <p>GLUPB will find out about status of the clean-up of abandoned and old pits from AANDC</p>	<p>AANDC</p>		<p>6</p>

Pollution and Waste Management Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>1. The Planning Board recommends that the Department of Aboriginal Affairs and Northern Development and appropriate industry groups develop strategies for the clean-up of remaining waste sites in the region.</p> <p>The Planning Board will request the latest GIS data on waste sites for the GSA from AANDC. The Board would like AANDC to provide any information and ongoing updates about clean-up strategies. (Is reporting to the communities happening / what information materials are available?)</p>	AANDC, industry		1,9,10
<p>2. The Planning Board recommends that the Gwich'in Tribal Council, Renewable Resource Councils, Designated Gwich'in Organizations and co-management boards and appropriate government groups work together to develop a strategy for cleaning up camps, hunting and fishing sites, roadside garbage and other areas with litter.</p> <p>A lead needs to be identified and the level of interest established for developing a strategy for cleaning up areas littered by garbage. The real work will be determining the best way of 'getting the message out' and building the support needed to create voluntary compliance.</p>	GTC, RRCs, DGOs, GRRB, GLUPB, GLWB?	As time allows:	1,6,9
<p>3. The Planning Board will investigate monitoring/baseline information that is, or should be, collected to be able to:</p> <ul style="list-style-type: none"> • Establish thresholds or limits of acceptable change to include in the Plan zoning policy. • determine if pollution sources are local or transboundary. <p>GLUPB will ask about AANDC contaminants program status</p>	GLUPB		2,3,6,7

Transportation, Utilities and Communication Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>1. The Planning Board recommends that the Department of Transportation with the involvement of co-management boards, Department of Fisheries and Oceans and community groups co-ordinate a study to address community concerns with the long term effects on fish and water resources of placing gravel in the rivers every year for ferry landings.</p> <p>In 2011, DOT had to prepare a local area monitoring plan as a condition on the November 2010 renewal of water licences G99L8-001 and G99L8-002 for the Dempster Highway ferry crossings on the Peel River and Mackenzie River. It asks for community reporting on fish harvests in the areas near the ferry crossings and will include monitoring river morphology for the five year term of the licences.</p>	<p>DOT, DFO, communities, GLWB, GRRB, GLUPB, GSCI</p>	<p>Started - 5 year program underway</p>	<p>3,4,6,9</p>
<p>2. The Planning Board will conduct more detailed land use planning where new transportation and utility corridors are proposed. Potential corridors include the Mackenzie Highway extension and a Mackenzie pipeline corridor.</p>	<p>GLUPB</p>	<p>when there are regulatory applications with enough detail available</p>	<p>2</p>

Tourism and Recreation Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>1. The Planning Board will establish and maintain communication with ITI regarding initiatives around tourism product development and diversity.</p>	<p>GLUPB, ITI</p>		<p>2,9</p>
<p>2. The Nihtat Gwich'in Council and Renewable Resources Council should produce a management plan for the Campbell Hills that addresses the commercial tourism potential of the area and relationship to Gwich'in Territorial Park. The Planning Board offers to provide any assistance it can.</p>	<p>NGC, NRRC/GLUPB</p>		<p>1,9</p>
<p>3. The Planning Board recommends that the Department of Industry, Tourism and Investment develop, with the assistance of the Gwich'in Tribal Council and co-management boards, a tourism economic plan for the Gwich'in Settlement Area.</p> <p>The GNWT Department of ITI has a mandate in Parks and Tourism. The Planning Board will work with ITI and appropriate agencies, such as NWT Arts and Tourism, to determine how best to develop a tourism economic plan.</p>	<p>GTC, ITI/GLUPB, GRRB</p>		<p>1,9</p>

Designated Areas Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>1. The Planning Board will check on the status of the proposed nomination for Mackenzie River as a Canadian Heritage River.</p> <p>If the nomination is moving forward the Board will consider how best to incorporate it into the Plan.</p>	GLUPB		1,2
<p>2. The Planning Board would like stay informed about specific research needs that are identified for special features and SARA species.</p> <ul style="list-style-type: none"> • Compile into a larger, regional research needs list to avoid duplicated efforts. • who would compile? 	GLUP		4,7,9
<p>3. The Planning Board shall take into consideration any detailed plans that the GTC may produce for the management of settlement lands</p> <p>(based on section 41.4 of the MVRMA and section 24.2.7 of the GCLCA)</p>	GLUPB, GTC		2
<p>4. The Planning Board recommends that Gwich'in Tribal Council and the Department of ITI review the process for establishing and managing territorial parks and review the management of Gwich'in Territorial Park specifically.</p>	GTC, ITI, communities		2,9

Designated Areas Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>5. The Planning Board recommends that scientific and traditional knowledge studies be conducted in the Headwaters of the Arctic Red River to determine if a legislative protected area or a Gwich'in Conservation Zone under the Land Use Plan should be established in the area. Studies required include:</p> <ul style="list-style-type: none"> • Wildlife, vegetation and other ecological inventories; • Non-renewable resource inventory and potential analysis, and; • Traditional use and heritage resource inventories. <p>The Planning Board will initiate discussions with all the recommended contributing groups.</p>	<p>GLUPB, GRRB, GSCI, ENR, AANDC, SLUPB</p>		<p>2,4,7,9</p>

Transboundary Planning and Global Connections Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>1. The Planning Board recommends that the Gwich'in Tribal Council and co-management boards work with transboundary groups to monitor activities in the Peel River Watershed in the Yukon Territory and the Mackenzie Valley.</p> <p>GLUPB will find out from the GTC and the Yukon Environmental and Socio-economic Assessment Board (YESAB) what communication mechanisms regarding activities in the Peel exist or might be established.</p>	GTC		3,7,9,10
<p>Peel River Watershed</p> <p>2. The GSCI had put forward a recommendation for a National Historic Site along parts of the Peel River. This is on hold now but needs to be considered during the land use planning process. The Planning Board will check on the status of the project.</p>	GLUPB, GSCI		2,9
<p>Sahtu Land Use Plan</p> <p>3. The Planning Board will continue sending the Sahtu Planning Board plan revision information and a copy of this Regional Plan of Action.</p> <p>The Gwich'in Planning Board will stay apprised of work on the draft plan, paying particular attention to the zoning and conditions placed on areas adjacent to the GSA. If deemed necessary, a joint meeting of the Sahtu and Gwich'in Land Use Planning Boards will be requested.</p>	GLUPB, SLUPB		2,9
<p>Inuvialuit Settlement Region (ISR)</p> <p>4. The Gwich'in Planning Board will continue distributing Plan revision drafts to the Inuvialuit Game Council, the Inuvialuit Regional Corporation, and the Aklavik Community</p>	IGC, IRC, and ACC		2,9

Transboundary Planning and Global Connections Actions	Lead/Participants	Timeline	Environmental Stewardship Framework
<p>Corporation</p> <p>5. The Planning Board will find out the status of the process for updating Inuvialuit Community Conservation Plans and ask for copies to review if available.</p>			
<p>6. The Planning Board will work with local municipalities and the Department of Municipal and Community Affairs on transboundary issues with respect to municipal boundaries. This includes the following:</p> <ul style="list-style-type: none"> • The Planning Board will send the Community Planning Section of MACA each annual report and a copy of this Strategy. • The planning Board will request the most recent community plans from MACA 	GLUPB, MACA, communities		2,9
<p>Mackenzie River Basin Board</p> <p>7. The Planning Board will contact the MRRB to see if they have any new information. The Planning Board will use new information to evaluate if additional actions are necessary or there are implications for the Plan.</p>	GLUPB		2
<p>8. The Planning Board would like to see resource managers in the GSA work together and develop a strategy for dealing with the effects of outside activities on resources in the Gwich'in Settlement Area. To see how this might work the Planning Board will learn more about monitoring and response options associated with climate change.</p> <p>The Planning Board will ask to be kept informed of any progress on the development of Climate Change Adaption Management Plans from Ecology North working with Tsiigehtchic and Fort McPherson.</p>			2,9,10

REFERENCES

¹ Webpage used for information on ESF: www.aadnc-aandc.gc.ca/eng/1100100023836 Accessed November 2010.

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⁶ ref: comments by EC on April Draft revised Plan

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⁸ (reference NRA report)

⁹ from National Ecological Framework for Canada 1995 rather than level III Ecoregion of the new Northwest Territories/continental Ecosystem Classification. will use new system for future planning activities (reference below)

Ecosystem Classification Group. 2010. Ecological Regions of the Northwest Territories - Cordillera. Department of Environment and Natural Resources, Government of the Northwest Territories, Yellowknife, NT. x+245 pp. + insert map.

¹⁰ REF: GSCI comments on Plan

¹¹ Ref: EC comments on April Draft Plan

¹² (reference-ec.gc.ca Envirozine)