

**“THE WATER HEART”:
A MANAGEMENT PLAN FOR GREAT BEAR LAKE AND ITS WATERSHED**

**Directed by
The Great Bear Lake Working Group**

May 31, 2005

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EXECUTIVE SUMMARY

1. RECOMMENDATION TO THE SAHTU LAND USE PLANNING BOARD

This Management Plan sets out the consensus of a broad coalition of organizations on the future management of Great Bear Lake (“GBL”). These organizations – collectively termed the “GBL Working Group” – developed this consensus through extensive community and technical work from October 2002 to May 2005.

The GBL Working Group recommends this Management Plan to the Sahtu Land Use Planning Board (“SLUPB”), for inclusion in the Board’s draft Sahtu Land Use Plan, and for review as part of the larger public review of the draft Land Use Plan later in 2005. The Working Group expects, in this way, to refine the Management Plan through the Land Use Planning Board’s public consultation process.

The Working Group recommends that the Management Plan ultimately form part of the approved Sahtu Land Use Plan, and that the policies, conditions and prohibitions in Parts 9 and 11 of this Executive Summary be given legal force through the approval and implementation of the Sahtu Land Use Plan.

The Working Group also recommends this Management Plan to the Sahtu Renewable Resources Board (“SRRB”), to the extent that the Plan falls within that Board’s jurisdiction.

The Déline First Nation, the Déline Land Corporation and the Déline Renewable Resources Council recommend the Management Plan to the SLUPB on condition that they may, within the five-year term of the Sahtu Land Use Plan, recommend changes to the Land Use Plan, to be considered according to the process out in section 48 of the *Mackenzie Valley Resource Management Act* (“MVRMA”).

There is some urgency to the approval of the Great Bear Lake Management Plan. Mineral and oil and gas exploration and development have accelerated in the GBL watershed in 2004 and 2005, and mineral and oil and gas rights acquired pursuant to existing legislation limit the options available to this Management Plan and to the Sahtu Land Use Plan. The GBL Working Group thus recommends that, following public consultation and the subsequent amendment of the draft Sahtu Land Use Plan in 2005, the Land Use Planning Board immediately forward the Great Bear Lake watershed portion of the Sahtu Land Use Plan to the Sahtu Secretariat Incorporated, the Territorial Minister and the Federal Minister, for their approval in accordance with section 43 of the MVRMA.

2. THE WATER HEART: WHY THIS MANAGEMENT PLAN IS NECESSARY

The elders of Déline have passed down a story through many generations¹. In times past, their spiritual teachers were often “mystically tied” to different parts of the environment: some to the caribou, some the wolf, some the northern lights and some the willow. Kayé Daoyé was one such person. He lived all around GBL or “Sahtu” in the Slavey language, but made his home primarily in Edaiila (the Caribou Point area), on the northeast shores of the Lake (Map 1). Kayé Daoyé was mystically tied to the loche. One day, after setting four hooks, he found one of them missing. This disturbed him – in those days hooks were rare and very valuable – and that

¹ Charlie Neyelle, personal communication (January 23/04).

night he traveled in his dreams with the loche in search of the fish that had taken his hook. As he traveled through the centre of GBL, he became aware of a great power in the lake – the heart of the lake or the “water heart”. Contemplating this heart, he became aware that it is connected to all beings – the land, the sky, plants, other creatures, people – and that it helps sustain the entire watershed of GBL.

The elders of Déline stress that the interconnectedness of all things includes all people – Dene and non-Dene alike. From this “universal law” of the interconnectedness of things flows the responsibility of people to care for the world in which we live. The water heart sustains the watershed of GBL, and we in turn have a responsibility to sustain it. We do this by treating it and other beings with the utmost respect.

Déline’s elders also remind us that, in times past, laws have often been imposed upon the Dene, with little or no consultation, by the federal and territorial governments. Their exclusion from decision-making has created an unhealthy relationship between the Dene and other Canadians, as represented by the Crown. The elders want to change that relationship. They see the cooperative development of the GBL Management Plan – and its incorporation into the Sahtu Land Use Plan – as an opportunity for all three natural levels of government – Déline, the Northwest Territories and Canada – to work together in the development of one law for the good of all.

The elders see the development of the GBL Management Plan and the Sahtu Land Use Plan as complementary to the settlement of the *Sahtu Dene and Metis Comprehensive Land Claim Agreement* (the “SLCA”) in 1993 and to the current negotiation of the Déline Self Government Agreement (“DSGA”). Indeed, they assert that the SLCA and the resource management regime it envisages is currently incomplete – that this regime will only be complete with the approval of the Sahtu Land Use Plan² – and that significant developments in the watershed should not be allowed to proceed until the Land Use Plan is approved. They see the Sahtu Land Use Plan and the “law” it would create as being based on the consensus of all three levels of government, and on their common aspirations for this unique part of the world. They see the Management Plan/Sahtu Land Use Plan as an opportunity to bring Dene traditional laws and values into the system of laws by which we govern ourselves.

GBL sits astride the Arctic Circle and just south of the tree line, in the central part of Canada’s Northwest Territories (Map 1). It is a place of importance not only to the Déline, but to all Canadians. It is a vast inland sea, still relatively untouched by modern-day industrialization, at once the homeland of the “Sahtugot’ine” – the “people of Sahtu” – and part of an intact wilderness that helps define what it means to be a Canadian. It is the ninth largest lake in the world, both in terms of surface area (31,326 square kilometers) and volume (2,292 cubic kilometers). Despite historical mining impacts on its eastern shores, it is probably the last very large lake in the world to exist in a relatively pristine state.

GBL is also a lake that exhibits peculiar characteristics, which make it the subject of management concern. These characteristics include: low water temperatures, even in summer (thus little stratification and the ability to turn over easily); high oxygen values; remarkable transparency/scarcely plankton and bottom fauna; extremely low biological productivity; relatively few fish species/simple food webs; and high vulnerability to commercial fishery over-exploitation.

² The Sahtu Land Use Plan has been termed “the last table of the SLCA”: Peter Menacho, personal communication (May 10/05),

This Management Plan is founded on different perceptions, cultural values and systems of knowledge regarding GBL. In the final analysis, however, these differences can co-exist: they are complementary to each other. The Plan is founded on a convergence of concern for the lake and its watershed as whole, and on the consensus of several organizations, boards and agencies that they must work together – now – to ensure the protection of the GBL watershed’s values for the future. This concern may be best expressed by the common vision that initiated the preparation of this Management Plan: that “GBL must be kept clean and bountiful for all time”.

A plan is only as good as its implementation. This Management Plan is based on the commitment, principles and values of Déline’s elders. They have laid the foundations of the Plan. Younger people from the spectrum of organizations represented by the GBL Working Group have worked out the details. But all will need to cooperate in the Plan’s implementation, and in its periodic review and amendment in the future.

This Plan was built through cooperation and it must be implemented through cooperation. Representatives of Déline feel that they have sometimes, after participating in the development of plans in the past, been by-passed in their implementation. Déline expects to participate in all aspects of the implementation of this Management Plan. The elders hope that, through this Management Plan, the era of Déline’s exclusion from decision-making and of others “acting in secret” can truly end, and that Déline can again plan a leading, stewardship role in the management of the GBLW.

One important qualifier needs to be born in mind throughout this Management Plan. Its implementation will require new funding. While some funding has already been secured, further funding will be required to implement this Plan. The GBL Working Group is hopeful that such funding will indeed be secured. In the meantime, *all commitments in this Management Plan must be understood to be contingent on the implementing bodies securing adequate funding to fulfill those commitments.*

3. THE GREAT BEAR LAKE WORKING GROUP

The preparation of this Management Plan was directed by the Great Bear Lake Working Group (the “GBL Working Group” or the “Working Group”). The Working Group is an *ad hoc* coalition of different organizations, regional management boards and agencies constituted in 2002 to prepare this Management Plan. The Working Group consists of many Déline elders and representatives of the Déline First Nation, the Déline Land Corporation (“DLC”), the Déline Renewable Resources Council (“DRRC”), the Déline Self-Government team, the Déline Uranium Team, the federal Departments of the Environment (“DOE”), Fisheries and Oceans (“DFO”) and Indian Affairs and Northern Development (“DIAND”), the territorial Department of Environment and Natural Resources (“ENR”), the SLUPB, the SRRB, the Mackenzie Valley Environmental Impact Review Board (“MVEIRB”), and the Canadian Parks and Wilderness Society - NWT Chapter. The Sahtu Land & Water Board (“SL&WB”) is an observer of the management planning process.

4. AUDIENCES, STRUCTURE AND STYLE

This Management Plan is written so as to be both technically accurate and accessible to people of different backgrounds: the people of Déline, the regional management boards established by the SLCA and the MVRMA, government management agencies and the general public. It attempts

to weave together culturally different perspectives and values, and readers are asked to bear these differences in mind in using the Plan.

Sahtugot'ine traditional law and management practices are passed on in many forms, including the elders' stories and teachings. Many chapters of the Management Plan thus begin with such a story or teaching. By adopting this style and by incorporating traditional knowledge throughout, the GBL Working Group intends to recognize the role of the elders in the management of GBL, bring the Sahtugot'ine and the larger Canadian legal systems together, and find a way of managing the land that respects both systems.

The Management Plan is divided into four parts:

- a. The Executive Summary summarizes the Plan's conclusions. It is intended for those less comfortable with longer written documents.
- b. The main body of the Plan gives a fuller explanation of the Plan's reasoning.
- c. The Plan is supported by a Research and Monitoring Plan for GBL and its Watershed (Appendix 2) as well as by the Sahtu Atlas.
- d. Finally, throughout its preparation, the written Plan was supported by various oral presentations to the elders and others more comfortable with the oral communication tradition. These oral presentations should continue throughout Plan implementation.

5. RELATIONSHIP BETWEEN RIGHTS RECOGNIZED IN THE SLCA, THE DSGA AND THIS MANAGEMENT PLAN

This Management Plan is subject to the SLCA and the resource management regime and the system of rights and responsibilities set out in that Agreement. It is also subject to the DSGA, to the extent that that Agreement applies to the GBL watershed, and to future amendments to either Agreement. It is to be interpreted so as to be consistent with these Agreements. It does not diminish in any way participants' rights as recognized in either Agreement.

For greater certainty, the Management Plan does not diminish participants' rights to harvest wildlife, trees and plants as set out in Chapters 13, 14 and 15 of the SLCA, participants' right of access as set out in 13.4.10 of the SLCA, and participants' right to travel and establish and maintain hunting, trapping and fishing camps as set out in 13.4.11 of the SLCA.

The Management Plan does not affect the special harvesting areas established by the SLCA or the exercise of participants' wildlife harvesting rights within these areas.

6. SCOPE, NATURE AND FOCUS

The Management Plan is comprehensive in its scope. It deals with:

- a. evolving management relationships and responsibilities, and particularly the development of an operational management capacity and responsibility in Déline;
- b. land and water use and land use planning, as these terms are defined in the SLCA and the MVRMA;

- c. several other resource management issues (e.g., culture and education, research and monitoring, and contaminated and waste site remediation).

The Management Plan is an evolving document. Both the Executive Summary and the main body of the Plan are divided into several projects addressing different aspects of the management of GBL and its watershed. They are called “projects” to underline the evolving and ongoing nature of the work needed to protect the lake and its watershed over time. This is only the first edition of the Plan. It focuses on priority issues. Much remains to be learned about the functioning of the lake and its watershed. While relatively comprehensive in scope, the Plan is thus selective in its focus. The Plan and the projects that comprise it will need to be adapted and amended over time, as our knowledge of GBL and its watershed increases, as management work on the watershed progresses, and as the management role played by the community of Déline grows.

7. GEOGRAPHIC SCOPE

This Management Plan deals only with the Sahtu portion of the GBL watershed (Map 2). The GBL Working Group hopes that authorities outside the Sahtu settlement area will work in future with Sahtu authorities, including representatives of Déline, to give similar protection to those parts of the watershed that fall outside of the Sahtu settlement area, including the Camsell, Johnny Hoe and Dease River watersheds.

Throughout this Management Plan, for brevity’s sake, “GBLW” means GBL and the Sahtu portion of its watershed.

With the exception of community water licenses, which are within the jurisdiction of the SL&WB and which are addressed in Part 9 of this Executive Summary, the Plan does not deal with lands within community boundaries.

This Management Plan does not address issues associated with the Great Bear River and its watershed, including potential hydro development on that River, since the Great Bear River falls outside of the GBLW. The Working Group recommends that the SLUPB and the MVEIRB address issues regarding the Great Bear River (including fish migrations and water levels) that could affect the GBL and its watershed. The Working Group urges these Boards, and indeed all parties, to respect the fundamental place of Déline authorities in decisions affecting the Great Bear River, including potential hydro development on that River.

8. MANAGEMENT RELATIONSHIPS AND RESPONSIBILITIES

Elders’ Story: A group of people comes upon a huge stone. They must somehow move the stone. It blocks their way utterly. They are unable to go around it, over it or under it. Nor are they able to move it working individually or in small groups. They will only be able to move the stone if they all work together, each according to his or her role in the larger task. Only the truth, discovered by all people working together, can move the stone and establish a “road for all humanity”. Through many generations, elders in the GBLW have addressed issues through regular gatherings, discussion and consensus. They say that we must use the same approach in the development and implementation of the GBL Management Plan. They say that GBL will only be preserved and kept healthy if the many organizations, agencies and boards with a role in the

management of the lake and its watershed, including the three levels of government, cooperate and work sincerely together³.

8.1 COMMUNICATION AND COORDINATION POLICIES

- a. Communication is a *responsibility* of every government department and agency, regional management board and community organization working in the GBLW. At the least, one or more individuals within each of these bodies should be charged with the responsibilities of communication and coordination, on the organization's behalf, with the organization's constituency and the other GBLW management bodies with which the organization works. Where necessary, communications-related training should be provided to these key individuals.
- b. Communications and coordination among the regional management boards and community authorities/residents are a particular focus of this Management Plan. The Great Bear Lake Working Group suggests that the regional management boards review the job descriptions of their resource people/technical staff. The object of this suggestion is that, wherever possible, regional management board communications should accommodate both the written and oral communication traditions, so that communications are carried out both in writing and orally. Board resource people should be used to consult, in writing and in person, with community authorities and residents. When an issue arises for a board, its resource person could present the issues before the board to community authorities, solicit community input on the issues, and report back to the board.
- c. Communications and coordination among community bodies and among community bodies, the regional management boards and government agencies are another priority of this Management Plan. Government should continue to fund the work of Déline's GBLW community coordinator.

8.2 OPERATIONAL MANAGEMENT POLICIES

- a. This Management Plan envisages a long-term management relationship between Déline and the other management authorities in the GBLW. This relationship must be allowed to evolve, so that Déline can again play a leading, stewardship role in the operational management of the lake and its watershed. This relationship must reflect Déline's interest in maintaining the ecological and cultural integrity of the watershed. The Management Plan must be adapted to changing circumstances, and to the developing role of the Déline First Nation Government, when it is established. Without limiting the generality of the foregoing:
 - i. The three levels of government should meet, on a government to government basis, to identify, through negotiations, roles for the Déline First Nation Government in the exercise of GBLW management jurisdiction and authorities; and
 - ii. Déline authorities should work with the appropriate management authorities so that, over time, the operational management of the GBLW is increasingly coordinated and delivered out of a Déline office(s) which has the capability to issue sport fishing licences, patrol activities in the watershed, administer a GBL registration system,

³ Morris Neyelle, personal communication (December 16/02), supplemented by Charlie Neyelle, personal communication (January 7/05).

carry out monitoring, provide logistical support, aid in/undertake research, and (ultimately) carry out inspections and enforce legislation and regulations.

9. THE SPECIAL MANAGEMENT ZONE

Elders' Teaching: The story of the water heart is set out at the beginning of this Management Plan. This part of the Management Plan expands on the philosophy and law underlying that story. The elders see the GBLW as one organism. They see the many rivers, streams and creeks that flow into and out of GBLW as fulfilling the same functions as the veins, capillaries and arteries in the bodies of all creatures. Water unites and flows through and among all creatures. It plays an essential role both in the larger ecosystem and in the smaller ecosystems that comprise each creature. And the maintenance of water quality in the GBLW is as essential as the maintenance of the quality of the blood of any person or other creature.

The elders assert that the health of people and the land are directly connected – and that people are not in reality separate from the land and other creatures. Our “minds”, “souls” and “hearts” are directly tied to the health of the land. The use that we make of the land and other creatures – and the respect with which we treat them – will have a direct bearing on the health not only of ourselves but also of all aspects of the land. If we do not support the land, give it strength and treat it with utmost respect, the heart of Sahtu will not survive.

The GBLW is a special place for the people of Déline. Their ancestors have been part of and have cared for this place for countless generations. The elders assert that we in turn have a responsibility to treat this watershed with respect – to keep it alive⁴. They want to protect it so that it can be used by the present generation and by future generations.

The GBL Working Group agrees with this perspective. For the many reasons set out in this Management Plan, GBL is a unique and special place, important to all Canadians. Together with its watershed, it must be protected for future generations.

This Management Plan provides for the establishment of a Special Management Zone in the GBLW (Map 3). The Special Management Zone includes all of the GBLW with the exception of Conservation Zones and Protected Areas, which are identified in the next part of this Executive Summary and in Chapter 5 of the main body of the Management Plan. For greater certainty, the Special Management Zone includes the Neregah Heritage Zone, and the policies, conditions and prohibitions in parts 9.1 to 9.4 below apply in Neregah.

The Special Management Zone also includes extensive areas of “settlement lands” (Map 4). Settlement lands – sometimes also called “selected lands” – are lands outside local government boundaries which were granted pursuant to section 19.1.2 of the SLCA, and in which the DLC holds the title. Settlement lands are further described in Part 4.3.2 of the main body of this Plan. The policies, conditions and prohibitions in parts 9.1 to 9.4 below apply on settlement lands.

Mineral interests in the GBLW which pre-date the approval of the Sahtu Land Use Plan are shown on Map 5. This Management Plan provides for the exercise of such interests in the Special Management Zone (and in Conservation Zones) as set out below.

⁴ Charlie Neyelle, personal communication, June 25/04, supported by Alfred Taniton, comments in June 28-30/04 TWG workshop.

The appropriate authorities shall interpret and apply the policies, conditions and prohibitions in Parts 9.1 to 9.4 below as mandatory requirements, within sections 46 and 47 of the MVRMA, applicable to all activities in the Special Management Zone authorized subsequent to the approval of the Sahtu Land Use Plan.⁵ For permits, licences or other authorizations in the Special Management Zone issued prior to the approval of the Sahtu Land Use Plan, the appropriate authorities shall apply the policies, conditions and prohibitions in Parts 9.1 to 9.4 as operational standards applicable to any renewal or substantial amendment of such permits, licences or other authorizations.

9.1 SPECIAL MANAGEMENT ZONE POLICIES

- a. The GBLW is part of the natural and cultural heritage of the Sahtugot'ine, other Canadians, and indeed the world. The lake and its watershed must be protected for generations to come. The conservation of renewable resources and the maintenance of the ecological and cultural integrity of the GBLW must be the first priority in all management decisions affecting the lake and its watershed. All activities in the GBLW must be consistent with the maintenance of the ecological and cultural integrity of the GBLW.
- b. The management of the Special Management Zone must also accommodate the use, by Déline individuals/organization and others, of renewable and non-renewable resources, provided that such use is consistent with the terms of the SLCA and the policies, conditions and prohibitions of this Management Plan. Wherever possible, proponents and the appropriate authorities must act to prevent adverse impacts. Applicants for permits, licences and other authorizations in the Special Management Zone must *demonstrate* to the appropriate authorities, including, as the context requires, the SLUPB, the MVEIRB, the SL&WB, the SRRB, the DLC and authorized inspectors, that all aspects of their activities are consistent with the maintenance of the ecological and cultural integrity of the GBLW and, without limiting the generality of the foregoing, with the conditions and prohibitions set out in Parts 9.2 to 9.4 below.
- c. The management of the Special Management Zone must be adapted to emerging knowledge ("adaptive management"). It must take account of and integrate the best available scientific and traditional knowledge, and it must be defensible in terms of both of these bodies of knowledge. The traditional knowledge used to meet this policy must be specific to the area that will be affected by the activity under consideration.

9.2 SPECIAL MANAGEMENT ZONE CONDITIONS

- a. Through the conditions they attach to permits, licences and other authorizations in the Special Management Zone, the SL&WB and other appropriate authorities shall ensure that each authorized party or the prospective assignee of that party:
 - i. establishes and maintains a site-specific research and monitoring program that is appropriate to the nature and scale of its proposed activity(ies) and adequate to

⁵ Please see the definition of "activity(ies)" in Part 1 of the main body of this Management Plan. "Activities" includes all activities requiring a permit, licence or other authorization in the GBLW, and excludes harvesting and the construction and maintenance of hunting, trapping and fishing camps as set out in sections 2.1.1 and 13.4.11 of the SLCA.

demonstrate that all aspects of its activity(ies) are consistent with the maintenance of the ecological integrity of GBLW ecosystems;

- ii. on termination or abandonment of its activity(ies), restores all areas affected by the activities to a condition consistent with the maintenance of the ecological integrity of GBLW ecosystems; and
 - iii. furnishes and maintains security with the Minister sufficient for achieving the purposes in (a)(i) and (ii) above, as well as for any ongoing measures that may be required after abandonment or closing.
- b. All uses of land or water and all deposits of waste in the Special Management Zone must be consistent with the maintenance of the ecological integrity of the GBLW. All uses of water and all deposits of waste in the Special Management Zone must be consistent with the maintenance of the ecological and cultural integrity of Conservation Zones within the GBLW.
 - c. All infrastructure in the Special Management Zone must be built, monitored and managed so as to prevent and where necessary rectify any negative environmental effects that may result from the infrastructure's degradation or aggradation of permafrost.
 - d. Activities in the Special Management Zone must not result in or contribute significantly to the destruction or degradation of critical fish habitat, or of critical habitats or residences of other wildlife species.
 - e. Activities⁶ in the Special Management Zone must not block or significantly alter the migration routes of migratory fish species or other migratory or semi-migratory wildlife species.
 - f. The management of Special Management Zone fisheries should be proactive in nature and must be precautionary in approach. The managers of GBLW fisheries shall ensure that:
 - i. all stocks fished for recreational or commercial purposes are maintained at sustainable levels consistent with identified fishery quality objectives. Licensed operators and harvesters shall be responsible for providing harvest statistics and biological information specified in their authorizations to the appropriate authorities;
 - ii. lake trout populations on GBL are not allowed to fall below levels that ensure that the catch of large trophy lake trout (fish in excess of 9kg) by any lodge remains stable at baseline levels. Baseline levels will be established for various stocks as determined by harvest studies in areas used by fishing lodges;
 - iii. arctic grayling populations in the Special Management Zone are maintained at levels that ensure the high quality of trophy fisheries. Baseline levels will be established for various stocks as determined by harvest studies in areas used by fishing lodges; and
 - iv. as a general rule, fish stocks in the Special Management Zone are managed conservatively in order to minimize the risk of degrading the quality of GBLW fisheries.

⁶ Again, "activities" excludes harvesting and the construction and maintenance of hunting, trapping and fishing camps as set out in sections 2.1.1 and 13.4.11 of the SLCA.

- g. Section 21.1.4 of the SLCA requires, as conditions of access to settlement lands, that there be no significant damage to these lands, no mischief committed on them, and no significant interference with participants' use and peaceful enjoyment of them. Government inspectors shall make every reasonable effort to ensure that all activities on settlement lands in the Special Management Zone comply with these requirements. In the event that the DLC or the Déline First Nation Government acquires the capability to inspect settlement lands, its inspectors shall do likewise.
- h. The *Mackenzie Valley Land Use Regulations* and the *Northwest Territories Archaeological Sites Regulations* protect historical and archaeological sites and burial grounds throughout the GBLW. Government inspectors shall make every reasonable effort to ensure that all activities in the Special Management Zone comply with both sets of regulations. In the event that the DLC or the Déline First Nation Government acquires the capability and authority to inspect settlement lands, its inspectors shall do likewise.
- i. Applicants for permits, licences or other authorizations in the Special Management Zone shall design and implement their activities in close consultation with the appropriate Déline authorities. Similarly, all bodies having authority under subsection 46(1) of the MVRMA (including government departments and agencies) shall consult Déline authorities prior to issuing licences, permits or other authorities under existing legislation. For greater certainty, the Mining Records Office shall consult Déline authorities prior to issuing prospecting permits in the Special Management Zone, and the National Energy Board shall consult Déline authorities prior to issuing approvals under its authority in the Special Management Zone. Consultation shall emphasize the prevention of adverse impacts. Consultation shall in all cases be initiated early in the activities-planning and the application-review processes. Déline authorities must have a reasonable period to make referrals to the SLUPB, and the SLUPB must have a reasonable period to make determinations of compliance in accordance with section 47 of the MVRMA.
- j. Activities in the Special Management Zone should have the support of Déline authorities. Where appropriate, given the scale of activities or their potential impacts on cultural integrity, consultation should be characterized by joint planning on the part of proponents and the appropriate Déline authorities. Proponents must in any case demonstrate to the SLUPB that proposed activities are consistent with the existing and future social, cultural and economic well-being of Déline participants.

9.3 SPECIAL MANAGEMENT ZONE PROHIBITIONS

The following are prohibited:

- a. any bulk water removal⁷ from the Special Management Zone; any bottled water removals shall have the approval of the Déline First Nation Government, when it comes into existence;

⁷ "Bulk water removal" means any water (including ice) transferred out of a river basin in any individual container greater than 40 litres in volume, or removal by any means that involves permanent out-of-basin transfer, whether it is by diversion (including pipelines, canal, tunnel, aqueduct or channel), tanker or other mechanism. Bulk water removal does not include "bottled water" in containers of 40 litres or less, which is regulated under environmental assessment processes and licensed under applicable legislation, and which otherwise meets the policies, conditions and prohibitions set out in Parts 9.1 to 9.4. In addition to the bottled water exemption,

- b. any direct or indirect deposit of wastes into the surface or ground waters of the Special Management Zone which would have a negative impact on the ecological integrity of GBLW ecosystems;
- c. any direct or indirect deposit of wastes through surface or ground water into GBL, unless the concentration of wastes will be at or below natural background levels – or in the case of historically-polluted drainages, pre-development levels – when the waste stream enters GBL;
- d. activities which result in the introduction of non-native plant and wildlife species or subspecies, or of domestic animal species or subspecies into the Special Management Zone;
- e. activities which result in or contribute to the loss of any wildlife or plant species in the Special Management Zone;
- f. activities which result in or contribute to the loss of genetic diversity (the loss of genetically unique populations of aquatic or terrestrial plants or wildlife)⁸;
- g. fish farming or aquaculture in the Special Management Zone;
- h. activities in the lakebed of GBL, including any building or drilling in the lakebed and any trawling which results in the physical disturbance of the lakebed. Subject to the approval of the appropriate Déline authorities and to existing legislative requirements, including requirements in the *Fisheries Act* and the *Navigable Waters Protection Act*, the following are exempted from this prohibition:
 - i. the installation of private, commercial or community wharves and docks;
 - ii. the installation of other similar inert structures within the boundaries of the community of Déline; and
 - iii. environmental monitoring equipment.

9.4 HERITAGE ZONE CONDITIONS

This Management Plan provides for the establishment of a Heritage Zone at Neregah (Maps 3, 4 and 6). While part of the Special Management Zone, Neregah is important to the community of Déline primarily because of the heritage associated with it.

“bulk water removal” does not include removal of freshwater from a drainage basin for water required: to meet short-term health and safety needs (such as fire fighting); for human or animal consumption during travel and water needed to carry foodstuffs; for road construction and maintenance; and other local uses, in so far as these are consistent with the policies, conditions and prohibitions set out in Parts 9.1 to 9.4.

⁸ Examples of unique forms (or “tribes”) of GBL lake trout that need to be preserved include the butterfly trout, insectivorous trout, piscivorous trout, deepwater humper-like trout and bulldog trout.

- a. Neregah Heritage Zone shall be managed according to the policies, conditions and prohibitions applicable to the Special Management Zone as a whole.
- b. Heritage values are protected throughout the GBLW primarily by *Mackenzie Valley Land Use Regulations* and the *Northwest Territories Archaeological Sites Regulations*. Activities in Neregah Heritage Zone shall be subject to a higher level of inspection for compliance with these *Regulations*.

The Minister responsible for national historic sites designated Somba K'e (Port Radium) as a national historic site in 1978, and the Sahtu Draft Preliminary Land Use Plan proposed that Somba K'e be established as a heritage zone. This Management Plan proposes a different approach:

- c. The Canada-Déline Uranium Table is working on a remediation plan for Somba K'e. The remediation of this site is between the Government of Canada and Déline authorities, and will be provided for outside of this Management Plan.
- d. The GBL Working Group – and particularly its Déline members – needs a better understanding of the contamination associated with Somba K'e and the safety of the public's visiting the site before it can make any recommendation about whether this site should be designated as a heritage zone.
- e. The potential designation of Somba K'e as a heritage zone should be re-visited in a future review of the Sahtu Land Use Plan.

9.5 CARIBOU PROTECTION MEASURES

Residents throughout the NWT and the western parts of Nunavut depend economically, socially and culturally on Bluenose-East and Bluenose-West caribou herds. These herds are vital to their existing and future well-being. Every reasonable effort should be made to maintain these herds at maximum sustainable levels. Their maintenance should be seen as the cost of doing business throughout their range.

Caribou protection measures are one of the tools that has been developed to protect caribou herds in the NWT. Originally introduced by DIAND in 1978 for the Beverly and Qamanirjuaq caribou herds, caribou protection measures attach to land use permits and have the legal force of conditions on these permits. They are designed to protect caribou and minimize permitted activities (primarily mineral exploration) when caribou are in an area, and to allow the permitted activities to continue when caribou have left the area.

The original caribou protection measures have been tested over several years. Various parties, most notably the Beverly and Qamanirjuaq Caribou Management Board, have now called for a re-evaluation of the original measures, for improved measures (if an assessment indicates that modifications to the original measures can provide meaningful protection), and for a more comprehensive system of protections for caribou herds throughout their life cycle and range.

The GBL Working Group agrees with this general approach. It is unable, at the time of writing this Management Plan, to recommend specific (improved) caribou protection measures, to be attached as conditions to permits, licences and authorizations in the Special Management Zone, for the fall and spring migrations of the Bluenose-East and Bluenose-West herds. A comprehensive approach is needed. The GBL Working Group believes that such an approach is

best developed through updating the Co-Management Plan for the Cape Bathurst, Bluenose-West and Bluenose-East Caribou Herds.

9.5.1 RECOMMENDATIONS

- a. The responsible authorities⁹ should, as a matter of priority, cooperate in updating the Co-Management Plan for the Cape Bathurst, Bluenose-West and Bluenose-East Caribou Herds. The updated Co-Management Plan should include a comprehensive system to protect the Bluenose-East and Bluenose-West herds during all stages of their life cycles. The update should be developed in consultation with representatives of the affected communities. In carrying out their update, the responsible authorities should consider the following:
 - i. the need to protect the traditional calving and post-calving grounds of the Bluenose-East herd in Nunavut, and the options of land use plan or legislative protection that would prohibit activities that could cause significant negative impacts to caribou or habitat;
 - ii. the need to protect both herds during other stages in their life cycles, including the rut and the fall and spring migrations (including river crossings);
 - iii. the need for reliable monitoring information, and the option of “mobile caribou protection measures”, using satellite-collared caribou and grids such as that in place for the Sahtu Harvest Study, supplemented by other survey techniques;
 - iv. the need for adequate inspection for compliance with caribou protection measures and for enforcement;
 - v. the feasibility of a pilot project in the Sahtu settlement area and of incorporating improved caribou protection measures into the Sahtu Land Use Plan as conditions of land use permits.
- b. Assuming a positive answer to 9.5.1.(a)(v) above, improved caribou protection measures should, as soon as reasonably feasible, be incorporated into the Sahtu Land Use Plan as conditions on subsequent permits, permit renewals and substantial permit amendments in the Special Management Zone.

9.6 AIR QUALITY

Air quality is an issue with many dimensions in the GBLW, including the communication of information on air quality, air quality monitoring, and the development of legally-enforceable air quality regulations.

9.6.1 RECOMMENDATIONS

⁹ Including the Department of Environment and Natural Resources (GNWT), the Department of the Environment (GN), the Gwich'in Renewable Resources Board, Nunavut Wildlife Management Board, the SRRB and the Wildlife Management Board (NWT).

- a. ENR should ensure that communities such as Déline are regularly informed (in print and orally) regarding the findings of the GNWT's ambient air quality monitoring program. The findings should include an analysis of seasonal levels and yearly trends, cumulative effects, and human health and environmental integrity implications.
- b. Within 1 to 5 years, ENR, the appropriate federal department(s) and the Déline First Nation Government (when established) should study the feasibility and advisability of establishing an air quality monitoring station in Déline. Further action on this recommendation must be integrated with the larger research and monitoring program described in Chapter 7 of this Management Plan.
- c. By the time of the first comprehensive review of the Sahtu Land Use Plan, ENR and the appropriate federal department(s) should collaborate in developing air quality regulations for the Mackenzie Valley. In so doing, they should consult (among others) the Déline First Nation Government. The regulations should help ensure the maintenance of the ecological and cultural integrity of watersheds such as the GBLW.
- d. In the interim, the SL&WB should recommend to those applying for permits, licences or other authorizations that they conduct all activities in the GBLW in conformity with the standards set out in the GNWT's *Guidelines for Ambient Air Quality Standards in the Northwest Territories*, in the Alberta Energy and Utilities Board's *Guide 60: Upstream Petroleum Industry Flaring, Incineration, and Venting*, and in the Texas Commission on Environmental Quality's *Short-Term and Long-Term Effects Screening Levels*.

10. "BELOW-THRESHOLD" WORK IN THE GBLW

The policies, conditions and prohibitions set out in Parts 9 and 11 of this Executive Summary apply only to "activities" as defined in Chapter 1 of this Management Plan. For any uses of land or water or deposits of waste in the GBLW that fall outside of this definition or that may be exempted by regulation from permit or licence requirements, the applicable regulatory authorities are urged to recommend strongly to land or water users that they carry out their work in a manner consistent with the maintenance of the ecological and cultural integrity of the GBLW, and in particular that they minimize impacts on the watershed and remove all equipment, other non-biodegradable objects and removable wastes that they bring into the watershed.

11. NEH KATZILA K'ETS'EDI: CONSERVATION ZONES AND PROTECTED AREAS

Elders' Teaching: Déline's elders have passed down a system of values, beliefs and codes of conduct to the present generation. Central to this worldview are several "prophecies" about the future. These prophecies are based on the visions of key elders in Déline's past, including Aya, Medzo, André and Bayha. Déline's current elders take these prophecies very seriously¹⁰.

The nature of these prophecies needs to be understood: they set out not what *must* happen but what *may* happen in the future, if our society does not change its relationship with the natural world, just as the predictions of various coalitions of scientists now warn of future environmental degradation and the potential weakening of the globe's life support systems.

¹⁰ This interpretation of the prophecies and its inclusion in the Management Plan is based on the elders' direction in the May 9/05 elders workshop in Déline, and particularly on the directions of Rosie Sewi, Leon Modeste, Raymond Taniton and Charlie Neyelle.

The Déline prophecies liken to world to a single living organism. They foresee – prior to the prophets ever having visited other parts of the world and prior to modern-day media accounts of environmental degradation – a growing assault on the natural world and the gradual encroachment of this assault on the Sahtu region. They foresee the degradation of the Great Lakes and southern Canadian water bodies, the gradual elimination of forests, the reduction or elimination of wildlife species and the spread of roads (likened to scars on the organism) through much of North America.

The elders relate the prophecies to their belief in a “universal law”: to the connectedness of all things, the need to treat other beings with the utmost respect and the need for all three levels of government to work together. The gradual degradation of the GBLW can only be prevented if Sahtugot’ine and non-Sahtugot’ine alike to act with “one mind” to protect the integrity of the land.

All of the GBLW is important to the Sahtugot’ine. There are also, however, certain special places within the watershed on which wildlife and the Sahtugot’ine are particularly dependent. The elders use a special phrase for these places. They say that they are “*sore benegodi*”: so real, of such fundamental value, so beautiful or so splendid that they are embedded in the mind; they cannot be dismissed; they are part of the Sahtugot’ine¹¹.

This part of the Management Plan provides for the establishment of several Neh Katzila K’ets’Edi within the GBLW. Neh Katzila K’ets’Edi is a Slavey term, meaning “lands set aside: we’re protecting them”.

Neh Katzila K’ets’Edi are particularly important places within the watershed, that need a higher level of protection than that provided by the Special Management Zone. In English, they are termed “Conservation Zones” and “Protected Areas”¹². The GBL Working Group recommends that the following Conservation Zones and Protected Areas be established in the GBLW (Map 3):

- i. Luchaniline (Whitefish River) Conservation Zone
- ii. Tehkaicho Dé (Johnny Hoe River) Conservation Zone
- iii. Du K’ets’ Edî (Sentinel Islands) Conservation Zone
- iv. Edaiila, including T’echo cho deh t’a tlaaa (Caribou Point, including Fort Confidence) Conservation Zone and Protected Area; and
- v. Sahyoue and Edacho (Grizzly Bear Mountain and Scented Grass Hills) Protected Area

11.1 NEH KATZILA K’ETS’EDI POLICIES, CONDITIONS AND PROHIBITIONS

- a. The appropriate authorities shall interpret and apply the policies, conditions and prohibitions in Parts 9.1 to 9.4 above, modified as the circumstances require, as mandatory requirements, within sections 46 and 47 of the MVRMA, applicable to all activities in Conservation Zones authorized subsequent to the approval of the Sahtu Land Use Plan¹³. In order to minimize

¹¹ Charlie Neyelle, personal communication (October 21, 2004).

¹² For the distinction between Conservation Zones and Protected Areas, see Part 5.1 in the main body of the Management Plan.

¹³ Please see the definition of “activity(ies)” in Part 1 of the main body of this Management Plan. “Activities” include all activities requiring a permit, licence or other authorization in the GBLW,

the length of this Executive Summary, these policies, conditions and prohibitions are not reproduced here: the definitive version may be found in Parts 5.5 and 5.6 in the main body of this Plan.

- b. Unless already authorized in a Conservation Zone prior to the approval of the Sahtu Land Use Plan, the following are prohibited in Conservation Zones:
 - i. the issuance of prospecting permits, the locating and recording of mineral claims, and mineral exploration, development and transportation; and
 - ii. oil and gas exploration, development and transportation.
- c. Where prospecting permits were issued in Conservation Zones prior to the approval of the Sahtu Land Use Plan, the appropriate authorities shall implement the following conditions and prohibitions:
 - i. licences, permits or other authorizations issued subsequent to the approval of the Sahtu Land shall be subject to the policies, conditions and prohibitions in Parts 5.5 and 5.6;
 - ii. on the expiry of these prospecting permits, no further prospecting permits shall be issued; and
 - iii. on the expiry or relinquishment of mineral rights within the boundaries of these prospecting permits, the prohibitions in 11.1 (b) above shall apply.
- d. For permits, licences or other authorizations in Conservation Zones issued prior to the approval of the Sahtu Land Use Plan, including those within pre-existing prospecting permits, the appropriate authorities shall apply the policies, conditions and prohibitions in Parts 5.5 and 5.6 as operational standards applicable to any renewal or substantial amendment of such permits, licences or other authorizations.
- e. As improved caribou protection measures are developed pursuant to 9.5.1 (b) above, they should, as soon as reasonably feasible, be incorporated into the Sahtu Land Use Plan as conditions on subsequent land use permits, permit renewals and substantial permit amendments, for all oil and gas and mineral exploration and development within Conservation Zones, including activities within prospecting permits which pre-date the development of such measures.
- f. Activities outside of Conservation Zones but within the watershed of such Conservation Zones shall be regulated and monitored to ensure the maintenance of the ecological integrity of Conservation Zones, and particularly their water quality.
- g. Subject to 11.2.2 below, commercial renewable resource harvesting activities in Conservation Zones are acceptable, provided they are consistent with the policies, conditions and prohibitions set out in Parts 5.5 and 5.6. Such activities shall be regulated by the appropriate authorities, including, as the context requires, the SRRB, the DRRC, the GNWT and the SL&WB, in accordance with 13.7, 14.1.6, 14.1.7 and 14.1.9 of the SLCA and, on settlement lands, including the DLC.

but excludes harvesting and the construction and maintenance of hunting, trapping and fishing camps as set out in sections 2.1.1 and 13.4.11 of the SLCA.

- h. For greater certainty, acceptable uses of Conservation Zones include:
- i. the exercise of participants' hunting, fishing, trapping and gathering rights as recognized in the SLCA;
 - ii. participants' right to travel and establish and maintain hunting, trapping and fishing camps;
 - iii. other non-commercial uses by participants, including educational uses; and
 - iv. non-commercial recreational uses, provided that they are carried out in ways that respect and do not interfere with participants' peaceful use and enjoyment of settlement lands. The appropriate authorities shall make all reasonable efforts to encourage non-regulated recreational users of Conservation Zones to contact and consult the DRRC prior to using Conservation Zones.

11.2 FURTHER CONDITIONS AND PROHIBITIONS APPLICABLE TO PARTICULAR NEH KATZILA K'ETS'EDI

The appropriate authorities shall interpret and apply the further policies, conditions and prohibitions set out in 11.2 below as mandatory requirements, within sections 46 and 47 of the MVRMA, for all activities authorized in the identified Conservation Zones subsequent to the approval of the Sahtu Land Use Plan:

11.2.1 LUCHANILINE (WHITEFISH RIVER CONSERVATION ZONE)

- Commercial timber harvesting or gravel extraction activities in Luchaniline shall be regulated to ensure the ecological integrity of Luchaniline and surrounding areas, with particular attention being paid to the Whitefish River, its riparian zone and GBL.
- Activities in parcel M25 (Maps 4&5) shall be subject to the policies, conditions and prohibitions in Part 5.5.2 to 5.5.4(a) only. Any further restrictions on these activities shall be as determined solely by the DLC.

11.2.2 DU K'ETS'EDI ("SENTINEL" ISLANDS CONSERVATION ZONE)

- a. Participants and others shall use Du K'ets'Edi for temporary purposes only, including stopping and camping for safety reasons, research and monitoring (including the installation of research and monitoring equipment) and youth educational camps. Emergency shelters and youth educational shelters shall be authorized for temporary purposes only. The appropriate authorities, including the SRRB, the DRRC, the GNWT and the SL&WB (and the DLC, in the case of settlement lands) shall not authorize any commercial renewable or non-renewable resource development activities on Du K'ets'Edi.

11.2.3 EDAIILA (CARIBOU POINT CONSERVATION ZONE)

- a. Given the importance of Edaiila to the Bluenose-East caribou herd, and the issuance of prospecting permits throughout much of Edaiila in 2004 and 2005 (Map 5), this Conservation Zone shall be given immediate priority for the development and application of improved caribou protection measures pursuant to 9.5.1b above.
- b. Edaiila should be considered as a candidate National Wildlife Area under the PAS.

11.2.4 SAHYOUE AND EDACHO: MANAGEMENT PLAN APPROACH

- a. As of May 2005, this Management Plan is based on the following assumptions:
 - i. The Crown lands portions of Sahyoue and Edacho will ultimately be established as a Protected Area, in accordance with the process set out in the PAS. In the interim, Sahyoue and Edacho should continue to be protected by a land withdrawal.
 - ii. The SLUPB should re-visit and confirm the first assumption above just prior to recommending the Sahtu Land Use Plan to SSI and Territorial and Federal Ministers for their approval. If the first assumption above seems doubtful at that time, the SLUPB should designate Sahyoue and Edacho as a Conservation Zone in the Sahtu Land Use Plan. The cultural and socio-economic importance of Sahyoue and Edacho is very high, well documented (see references in part 5.6.5 of the main body of the Management Plan) and comparable to Luchaniline and Tehkaicho Dé.
 - iii. The DLC will inform the SLUPB if it wishes the settlement lands portions of Sahyoue and Edacho to be designated as a Conservation Zone under the GBL Management Plan/Sahtu Land Use Plan.
- b. Given the above approach and the likely designation of Sahyoue and Edacho as a Protected Area under the PAS, this Management Plan does not attempt to document the ecological, cultural and socio-economic importance, the non-renewable and renewable resource development potential, or the management conditions and prohibitions that should apply to Sahyoue and Edacho.

12. CULTURE AND EDUCATION

Elders' Story: In Sahtugot'ine tradition, grandparents often played a central role in the upbringing and education of their grandchildren. Many years ago, when the time was right, one such grandfather took up the teaching of his grandson. His words "made a path" or "life-long road" for his grandson, which would allow his grandson to "see his gray hair at the end of his road". He taught his grandson of the universal law of the connectedness of all things, of respect for all things, and of the challenges that he would face along his particular road.

His grandfather also tied moose hide bracelets around the wrists and ankles of his grandson and instructed his grandson not to disturb the bracelets, to leave them on until they disintegrated and fell off naturally, and to inform him as they fell off. And he instructed his grandson to pay close attention to his dreams.

Thereafter, the grandson began dreaming of the moose. He developed a "mystical tie" to the moose, a tie that was to endure and develop for the rest of his life. After some time, his left ankle bracelet fell off. Later his right wrist bracelet fell off, and later again his right ankle and his left

wrist bracelets each fell off in turn. When he informed his grandfather that the final bracelet had fallen off, of the order of their falling off and of his dreams, his grandfather was assured of the unity of his person and his relationship with the land. He declared his grandson sufficiently mature that he was now an adult and could establish his own household and home¹⁴.

12.1 CULTURE AND EDUCATION AREA POLICIES

- a. The appropriate government authorities should make every reasonable effort to support initiatives on the part of Déline to maintain and strengthen the land-based culture and its transmission from the elders to the younger generations. Operational management and research and monitoring priorities are addressed in Chapters 3, 7 and 8 of this Management Plan, and the protection of the land (in the widest sense) is addressed in Chapters 4 and 5. Culture and education priorities are as follows:
 - i. Facilitate land-based activities for community members, particularly where the elders can pass on Sahtugot'ine culture to the younger generations.
 - ii. Assist elders and local/regional educators in defining clear teaching roles for the elders in the schools, and in the developing and incorporating culturally-appropriate teaching materials in the school curriculum. Support the inclusion of materials on the GBLW in the curriculum, incorporating both Sahtugot'ine traditional knowledge and scientific knowledge about the watershed in the curriculum.
 - iii. Support the community's efforts to develop its capacity in the fields of ecological and cultural research, monitoring and management.
 - iv. Support community efforts to promote and communicate Sahtugot'ine culture, to develop greater mutual respect between Sahtugot'ine and people of other cultures, and (more specifically) to develop and maintain a GBLW website.

13. RESEARCH AND MONITORING

Elders' Teachings: Research and monitoring are as fundamental a part of Sahtugot'ine culture as they are of Euro-Canadian cultures, notwithstanding the differences in these cultural traditions. Many middle-aged and elder Sahtugot'ine tell a similar story. When they were younger, their elders gradually passed on to them the accumulated knowledge of the Sahtugot'ine. They also instructed them to observe, take note and be aware of every aspect of their surroundings: of the particular features of any place; of the constantly changing relationships among weather, snow, ice, currents, plants and animals; of the cycles and features of plants and the seasons; and of the particular movements and behaviour of mammals, fish and birds, etc. These instructions and the sometimes-puzzling stories of their elders would often cause younger people to wonder why they were being so instructed and what the stories might mean. But they recount that, later in life, when they sometimes found themselves outside the normal realm of their experience and in real danger, the teachings of their elders and the years of observation, now second nature, allowed them to respond with understanding and skill, and to survive. Some also recount how their elders instilled in them the certainty that no matter what

¹⁴ Charlie Neyelle, personal communication, June 25/04.

the problem, it can be solved. There is an answer, but the answer can only be found by persistence, hard work and careful observation¹⁵.

13.1 RESEARCH AND MONITORING POLICIES

- a. An ongoing (long-term) research and monitoring program must be established in the GBLW:
 - i. As set out in 9.2.(a)(i) above, the proponents of authorized activities shall be required to carry out site-specific research and monitoring.
 - ii. Government resource management departments and Déline authorities shall collaborate in updating, implementing and reporting on the more general and ongoing research and monitoring program – the Research and Monitoring Plan for GBL and its Watershed – in the Special Management Zone and Conservation Zones. Together with the research and monitoring under 13.1(a)(i) above, the more general research and monitoring program shall, within 10 years following the approval of this Management Plan, provide an information base that is adequate for decision-makers to maintain the ecological and cultural integrity of the GBLW. It shall include research and monitoring re. cumulative effects. Research and management authorities in the GBLW (including Déline authorities) should be resourced so that they are able, in full partnership, to carry out this more general research and monitoring program.
- b. The primary purposes of the research and monitoring program shall be the maintenance of the ecological and cultural integrity of the watershed, and the development of the research and monitoring capacity of Déline, so that Déline can again play a leading, stewardship role in the management of the GBLW. In public funding of research and monitoring in the GBLW, priority must be given to research and monitoring that can demonstrate a clear link to these purposes, and the coordination of proposed research or monitoring with other research and monitoring projects in the GBLW. All new and ongoing research and monitoring projects in the GBLW should consider the projects identified in the Research and Monitoring Plan for GBL and its Watershed as well as in the Report of the Sahtu Heritage Places and Sites Joint Working Group.
- c. Research and monitoring must be designed and carried out using both scientific and traditional knowledge.
- d. Guidelines on the collection and use of traditional knowledge shall be incorporated into the Research and Monitoring Plan for GBL.
- e. Prior to undertaking research and monitoring in the GBLW, researchers and monitors shall consult the appropriate Déline organization(s) and the SRRB. The Déline First Nation Government, when established, shall identify the Déline organizations that are appropriate to different sorts of research and monitoring in the GBLW and that should be consulted, and it shall annually publish this information in plain language on its website as well as on the website of the SRRB.

¹⁵ Story distilled from various speakers, including Leroy André, personal communication, June 27/04 and Morris Neyelle, personal communication, June 27/04.

14. PATROLS AND ENFORCEMENT

14.1 PATROL AND ENFORCEMENT POLICIES

- a. Within 1 to 5 years, the enforcement and research management agencies in the GBLW shall collaborate in developing and implementing a Déline residents/DRRC patrols and research & monitoring training plan.
- b. Within 5 to 10 years, the enforcement and research management agencies shall collaborate in maximizing the involvement of Déline residents and the appropriate Déline authorities in GBLW patrols, surveys, logistical support and monitoring.
- c. Within 5 to 10 years, the enforcement agencies shall collaborate in developing and implementing an enforcement agencies/Déline authorities' enforcement training plan.

15. CONTAMINATED AND WASTE SITE REMEDIATION

15.1 CONTAMINATED AND WASTE SITE REMEDIATION POLICIES

- a. The primary purpose of the contaminated and waste sites remediation program in the GBLW shall be to ensure that the ecological and cultural integrity of the watershed are maintained.
- b. In consultation with Déline authorities, DIAND shall inventory, research, monitor and remediate contaminated and waste sites in the GBLW¹⁶. If a thorough remediation is not feasible, the wastes should be contained. Without limiting the generality of the foregoing, DIAND shall:
 - i. update and ground truth its inventory of contaminated and waste sites in the GBLW, and update Table 9.1 (in the main body of the Management Plan) on a yearly basis;
 - ii. coordinate future inventory, assessment and remediation work in the GBLW with the research and monitoring program described in Chapter 7 of this Management Plan;
 - iii. remediate known contaminated sites as set out in Table 9.1, and remediate smaller contaminated and waste sites as opportunities arise and as the confirmed budgets allow; and
 - iv. work cooperatively with Déline authorities in identifying and ensuring remediation of sites and, to the extent possible¹⁷, maximize the economic opportunities available to Déline authorities in site remediation and management.
- c. Until devolution, the federal government should continue to be responsible for the assessment and remediation of abandoned contaminated and waste sites on a priority basis. The federal government shall provide reasonable funding to allow for meaningful community involvement in the activities it undertakes to address concerns about identified

¹⁶ Given the potential costs of these activities, please note the qualifier in Part 2 above.

¹⁷ Qualifier included in light of overlapping interests as identified in the Tli Cho Agreement and the Akaitcho Interim Measures Agreement.

sites. These responsibilities may change post-devolution in accordance with a devolution transfer agreement.

16. TRANS-BOUNDARY ISSUES

Most of the watershed of GBL lies within the Sahtu settlement area, and this first edition of the GBLW Management Plan has restricted itself to the Sahtu portion of the watershed. There are several reasons for this restricted focus, including Déline's historic interest and initiative in protecting this unique watershed, the opportunity provided by the development of the Sahtu Land Use Plan and the practicality of a phased approach to the protection of the watershed as a whole.

By the same token, however, much of the watershed of GBL lies outside of the Sahtu settlement area, in the Nunavut, the Deh Cho and particularly in the Tlicho (Wek'eezhii) settlement areas. The GBL watershed comprises approximately 144,069 sq. km. in total. The watershed's breakdown in various jurisdictions is as follows:

| | |
|----------|------------------------|
| Nunavut: | 2% (2,876 sq. km.) |
| Deh Cho: | 4% (6,401 sq. km.) |
| Tlicho: | 31% (44,525 sq. km.) |
| Sahtu: | 63% (90,267 sq. km.) |
| Total: | 100% (144,069 sq. km.) |

Water flows, animals migrate and air pollution knows no boundaries. Action to protect the GBLW – to keep it clean and bountiful for all time – will only be effective if authorities throughout the watershed (and beyond) cooperate in the maintenance of its ecological and cultural integrity. Déline's elders inform the GBL Working Group that this matter is too important to be left unresolved. As with this Management Plan, they would like to lay the foundation for cooperation with other jurisdictions. They propose to do this through discussions, similar those that took part in much earlier times, with the elders of adjacent jurisdictions. The GBL Working Group supports this approach. It recommends as follow:

16.1 RECOMMENDATIONS

- a. The appropriate government authorities should make every reasonable effort to allow Déline's elders to meet with elders in adjacent jurisdictions, to discuss cooperative principles and processes by which the larger watershed of GBL may be kept clean and bountiful for all time. Other agencies, including the SLUPB and the SRRB, should observe and, where appropriate, lend support to this initiative.
- b. With the incorporation of the GBL Management Plan into the Sahtu Land Use Plan and the public review and refinement of the Land Use Plan in 2005, the SLUPB and the SRRB should work with comparable authorities in adjacent parts of the GBL watershed to establish processes by which the elders' initiative may be completed and by which the ecological and cultural integrity of the larger watershed may be assured.

17. PLAN REVIEW AND AMENDMENT

Parts 1 and 2 of this Executive Summary have addressed why this Management Plan is necessary, the incorporation of the Management Plan into the Sahtu Land Use Plan, the accelerated approval of the GBLW part of the Sahtu Land Use Plan, its implementation and the need for implementation funding.

The GBL Working Group expects that this Management Plan will be updated as experience and more scientific knowledge are acquired about the GBLW, and as the capacity of Déline organizations develops. Section 50 of the MVRMA requires the SLUPB to carry out a comprehensive review of the Sahtu Land Use Plan every five years, or at other intervals as agreed to by the Federal Minister, the territorial Minister and SSI. The GBL Working Group expects that the GBL Management Plan will be updated as part of the larger review of the Sahtu Land Use Plan.

MAPS¹⁸

¹⁸ To be inserted at this point in the Management Plan.

1. DEFINITIONS AND ABBREVIATIONS

Note: Given the importance of the *Sahtu Dene and Metis Comprehensive Land Claim Agreement* (“SLCA”) and its ready availability, definitions from that Agreement are not repeated here.

- “activity(ies)” in Chapters 4 and 5 of this Management Plan has the same meaning as in sections 46 and 47 of the MVRMA. “Activities” include all activities relating to the use of land or water or the deposit of waste in the GBLW that require a licence, permit or other authorization under federal or territorial law, as well as any other activities, including the activities of government, referred to the SLUPB in accordance with sections 46 and 47 of the MVRMA. “Activities” do not include, and this Management Plan does not restrict:
 - a. land uses exempted from any requirement for a land use permit by subsection 2(3) of the *Mackenzie Valley Land Use Regulations* – such exemptions include participants’ harvesting and participants’ construction of camps for the purpose of harvesting; and
 - b. water uses and waste deposits exempted from any requirement for a water use or waste deposit licence by subsection 5(1) of the *Northwest Territories Waters Regulations*.
- “appropriate authorities” includes, as the context requires, the SLUPB, the SRRB and every body having authority under subsection 46(1) of the MVRMA, including, for greater certainty, the SL&WB, the MVEIRB and government licencing, permitting and authorizing departments and agencies.
- “archaeological sites and artifacts” are defined as in section 1 of the *Northwest Territories Archaeological Sites Regulations*: “archaeological artifact” means “any tangible evidence of human activity that is more than 50 years old, in respect of which an unbroken chain of possession cannot be demonstrated”, and “archaeological site” means “a site where an archaeological artifact is found”.
- “CMRs” means the *Canada Mining Regulations*
- “conservation” is as defined in section 2.1.1 of the SLCA.
- “Conservation Zones” means areas identified in Chapter 5 of this Management Plan, that need a higher level of protection than that provided by the Special Management Zone described in Chapter 4 of the Plan.
- “consultation” is defined as in section 2.1.1 of the SLCA.
- “critical habitat” means habitat essential for an organism to complete its life cycle.
- “DFO” means the Department of Fisheries and Oceans
- “DIAND” means the Department of Indian Affairs and Northern Development.
- “DLC” means the Déline Land Corporation.
- “DRRC” means the Déline Renewable Resources Council.
- “DSGA” means the Déline Self Government Agreement.
- “enforcement” is carried out by inspectors or officers duly authorized to undertake a range of actions, typically including search and seizure, inspections and the laying of charges.
- “ENR” means the Department of Environment and Natural Resources (GNWT).
- “entire GBLW” means the entire watershed of GBL, including those parts of the watershed that lie outside of the Sahtu settlement area.
- “GBL” means Great Bear Lake
- “GBL Management Plan”, the “Management Plan” and the “Plan” all mean this Management Plan, unless the context dictates otherwise.
- “GBLW” means the Sahtu portion of the Great Bear Lake watershed. With the exception of community water licenses, which are within the jurisdiction of the SL&WB and which are addressed in Chapter 4 of this Management Plan, the GBLW does not include lands within community boundaries.
- “GBL Working Group” means the Great Bear Lake Working Group.
- “GNWT” means the Government of the Northwest Territories

- “harvesting” is defined as in section 2.1.1 of the SLCA.
- “IAND” means Indian Affairs and Northern Development
- “legislation” and “legislative” include both statute and regulations.
- “Mackenzie Valley” is defined as in section 2 of the MVRMA: “Mackenzie Valley” means “that part of the Northwest Territories bounded on the south by the 60th parallel of latitude, on the west by Yukon, on the north by the Inuvialuit Settlement Region, as defined in the Agreement given effect by the *Western Arctic (Inuvialuit) Claims Settlement Act*, and on the east by the Nunavut Settlement Area, as defined in the *Nunavut Land Claims Agreement Act*, but does not include Wood Buffalo National Park of Canada”.
- “Minister” means the relevant federal or territorial minister(s).
- “monitoring” refers to the regular measurement of environmental or social parameters and indicators. Persons carrying out patrols could also carry out monitoring and various research functions, as well as provide logistical support to others’ research and monitoring.
- “must” and “shall” are used interchangeably in this Management Plan; they imply mandatory requirements;
- “MVEIRB” means the Mackenzie Valley Environmental Impact Review Board
- “MVLURs” means the Mackenzie Valley Land Use Regulations.
- “MVRMA” means the *Mackenzie Valley Resource Management Act*
- “NWTWA” means the *Northwest Territories Waters Act*
- “NWTWRs” means the *Northwest Territories Waters Regulations*
- “participant” is as defined in section 2.1.1 of the SLCA.
- “patrols” are carried out by persons who do not have the authority of officers or inspectors and whose primary purpose is the undertaking of surveys and the gathering of other information regarding resource use. Those carrying out patrols should be satellite phone equipped so that they can contact inspectors or officers should they encounter situations where inspections or enforcement may be necessary.
- “Protected Areas” means areas protected and managed pursuant to Protected Areas legislation. “Protected Areas” is used generically in this Management Plan, so as to include national parks, national historic sites protected by regulations under subsection 42(3) of the *Canada National Parks Act*, and the range of “conservation areas” as that term is defined in section 2.1.1 of the SLCA.
- “regional management boards” includes the MVEIRB, the SL&WB, the SLUPB and the SRRB.
- “RWED” means the Department of Resources, Wildlife and Economic Development (GNWT), as it was previously named, and that is now named Environment and Natural Resources.
- “Sahtu Lands” is as defined in section 2.1.1 of the SLCA.
- “settlement lands” is as defined in section 2.1.1 of the SLCA.
- “shall” and “must” are used interchangeably in this Management Plan; they imply mandatory requirements;
- “SLCA” means the Sahtu Dene and Metis Comprehensive Land Claim Agreement
- “SL&WB” means the Sahtu Land and Water Board
- “SLUPB” means the Sahtu Land Use Planning Board
- “Special Management Zone” means the area described in Chapter 4 of this Management Plan: all of the GBLW with the exception of Conservation Zones in the watershed.
- “SRRB” means the Sahtu Renewable Resources Board
- “SSI” means the Sahtu Secretariat Incorporated
- “waste” is defined as in section 2 of the *Northwest Territories Waters Act*
- “wildlife” is defined as in section 2.1.1 of the SLCA: “wildlife” means all *ferae naturae* in a wild state, including fish, mammals and birds.

2. INTRODUCTION

2.1 RECOMMENDATION TO THE SAHTU LAND USE PLANNING BOARD

This Management Plan sets out the consensus of a broad coalition of organizations on the future management of Great Bear Lake (“GBL”). These organizations – collectively termed the “GBL Working Group” – developed this consensus through extensive community and technical work from October 2002 to May 2005.

The GBL Working Group recommends this Management Plan to the Sahtu Land Use Planning Board (“SLUPB”), for inclusion in the Board’s draft Sahtu Land Use Plan, and for review as part of the larger public review of the draft Land Use Plan later in 2005. The Working Group expects, in this way, to refine the Management Plan through the Land Use Planning Board’s public consultation process.

The Working Group recommends that the Management Plan ultimately form part of the approved Sahtu Land Use Plan, and that the policies, conditions and prohibitions in Chapters 4 and 5 be given legal force through the approval and implementation of the Sahtu Land Use Plan.

The Working Group also recommends this Management Plan to the Sahtu Renewable Resources Board (“SRRB”), to the extent that the Plan falls within that Board’s jurisdiction.

The Déline First Nation, the Déline Land Corporation and the Déline Renewable Resources Council recommend the Management Plan to the SLUPB on condition that they may, within the five-year term of the Sahtu Land Use Plan, recommend changes to the Land Use Plan, to be considered according to the process out in section 48 of the *Mackenzie Valley Resource Management Act* (“MVRMA”).

There is some urgency to the approval of the Great Bear Lake Management Plan. Mineral and oil and gas exploration and development have accelerated in the GBL watershed in 2004 and 2005, and mineral and oil and gas rights acquired pursuant to existing legislation limit the options available to this Management Plan and to the Sahtu Land Use Plan. The GBL Working Group thus recommends that, following public consultation and the subsequent amendment of the draft Sahtu Land Use Plan in 2005, the Land Use Planning Board immediately forward the Great Bear Lake watershed portion of the Sahtu Land Use Plan to the Sahtu Secretariat Incorporated (“SSI”), the Territorial Minister and the Federal Minister, for their approval in accordance with section 43 of the MVRMA.

2.2 THE WATER HEART: WHY THIS MANAGEMENT PLAN IS NECESSARY

The elders of Déline have passed down a story through many generations¹⁹. In times past, their spiritual teachers were often “mystically tied” to different parts of the environment: some to the caribou, some the wolf, some the northern lights and some the willow. Kayé Daoyé was one such person. He lived all around GBL or “Sahtu” in the Slavey language, but made his home primarily in Edaiila (the Caribou Point area), on the northeast shores of the Lake (Map 1). Kayé Daoyé was mystically tied to the loche. One day, after setting four hooks, he found one of them missing. This disturbed him – in those days hooks were rare and very valuable – and that night he traveled in his dreams with the loche in search of the fish that had taken his hook. As he

¹⁹ Charlie Neyelle, personal communication (January 23/04).

traveled through the centre of GBL, he became aware of a great power in the lake – the heart of the lake or the “water heart”. Contemplating this heart, he became aware that it is connected to all beings – the land, the sky, plants, other creatures, people – and that it helps sustain the entire watershed of GBL.

The elders of Déline stress that the interconnectedness of all things includes all people – Dene and non-Dene alike. From this “universal law” of the interconnectedness of things flows the responsibility of people to care for the world in which we live. The water heart sustains the watershed of GBL, and we in turn have a responsibility to sustain it. We do this by treating it and other beings with the utmost respect.

Déline’s elders also remind us that, in times past, laws have often been imposed upon the Dene, with little or no consultation, by the federal and territorial governments. Their exclusion from decision-making has created an unhealthy relationship between the Dene and other Canadians, as represented by the Crown. The elders want to change that relationship. They see the cooperative development of the GBL Management Plan – and its incorporation into the Sahtu Land Use Plan – as an opportunity for all three natural levels of government – Déline, the Northwest Territories and Canada – to work together in the development of one law for the good of all.

The elders see the development of the GBL Management Plan and the Sahtu Land Use Plan as complementary to the settlement of the *Sahtu Dene and Metis Comprehensive Land Claim Agreement* (the “SLCA”) in 1993 and to the current negotiation of the Déline Self Government Agreement (“DSGA”). Indeed, they assert that the SLCA and the resource management regime it envisages is currently incomplete – that this regime will only be complete with the approval of the Sahtu Land Use Plan²⁰ – and that significant developments in the watershed should not be allowed to proceed until the Land Use Plan is approved. They see the Sahtu Land Use Plan and the “law” it would create as being based on the consensus of all three levels of government, and on their common aspirations for this unique part of the world. They see the Management Plan/Sahtu Land Use Plan as an opportunity to bring Dene traditional laws and values into the system of laws by which we govern ourselves.

GBL sits astride the Arctic Circle and just south of the tree line, in the central part of Canada’s Northwest Territories (Map 1). It is a place that different organizations and cultures see in different terms. But notwithstanding these differences in perception, GBL has recently become the focus of the attention and collaboration of several organizations, agencies and regional management boards:

- a. For the people of Déline, the only community on GBL, the lake is literally part of their culture and way of life, as they are part of it. They see evidence of their ancestors all around the lake. They have lived around the lake and it has sustained them since time immemorial, to the point that they now refer to themselves as “Sahtugot’ine” – “the people of Sahtu”²¹. The lake and its watershed play a central role in their cosmology, history and traditional law, in

²⁰ The Sahtu Land Use Plan has been termed “the last table of the SLCA”: Peter Menacho, personal communication (May 10/05),

²¹ Given the importance of GBL/Sahtu throughout the Sahtu Settlement Area, people in other communities (e.g. Colville Lake) also sometimes refer to themselves as “Sahtugot’ine”. In this Management Plan, “Sahtugot’ine” is used to include Sahtu Dene and Metis living in Déline (participants in the Sahtu Land Claim Agreement), non-participants who have lived in Déline for at least 4 years, and participants living on the land in the Déline district.

the elders' transmission of the culture to the younger generation, and in the Sahtu regional economy. The people of Déline consider themselves stewards of the lake. Moreover, they are aware of the gradual pollution of Canada's Great Lakes, of the dumping of large quantities of uranium tailings and other contaminants into GBL (near the Port Radium mine, on the eastern shores of GBL) many decades ago, and of several abandoned mines in the eastern parts of the GBLW²². They are deeply concerned that the pollution near Port Radium and other abandoned mines in the GBLW be researched and monitored; that it be remediated, to the degree that this is possible; and that a regime be established that will prevent this sort of pollution of GBL and its watershed ever happening again. Their fundamental concern is that the lake and its watershed be preserved in – and where necessary restored to – an unpolluted and healthy state.

- b. GBL is also a place of great importance to other Canadians. For them, it is a vast inland sea, still relatively untouched by modern-day industrialization, at once the homeland of the Sahtugot'ine and part of an intact wilderness that helps define what it means to be a Canadian. For some – e.g., the owners of the fishing lodges on the lake – it is also a source of their livelihood. For others, it is a source of resources and employment, and for others, recreation. For government management agencies, it is a unique and very important resource. But for most Canadians and the government agencies responsible for its co-management, GBL has until recently remained relatively remote, rarely visited, and seldom the focus of their sustained attention.
- c. This has changed in recent times. Recently, several land and resource management agencies have come to share Déline's concern for and focus on GBL and its watershed as an ecological unit. There is now a growing consensus that the lake and its watershed need special management protection. This is arguably because of several factors:
 - i. The SLCA has created a new management regime in the Sahtu settlement area, new management relationships, a greater management role and voice for the Sahtugot'ine, and a fresh perspective on the management of places such as GBL.
 - ii. GBL is the ninth largest lake in the world, both in terms of surface area (31,326 square kilometers) and volume (2,292 cubic kilometers)²³. Despite historical mining impacts on its eastern shores, it is probably the last very large lake in the world to exist in a relatively pristine state²⁴.
 - iii. GBL remains remote from most research centres, difficult and expensive for external management agencies to access, and relatively little-researched and understood by them²⁵. It is known, however, that the lake exhibits peculiar characteristics, which

²² For a summary of Port Radium and other abandoned mine and waste sites in the GBLW, see D.D. MacDonald et al., *State of the Aquatic Knowledge of Great Bear Watershed*, Prepared for: Water Resources Division, Indian and Northern Affairs Canada (Nanaimo: MacDonald Environmental Sciences Ltd., January 2004), at 50-58 (hereafter cited as MacDonald (2004)).

²³ Jacques Sirois, *What the "White Man" Knows About the Natural History of Great Bear Lake, Northwest Territories, Canada. A Literature Survey and a State of Knowledge Overview; With a Proposal for World Heritage Site Designation by UNESCO* (31 March 2001) at 31 (hereafter cited as Sirois (2001)).

²⁴ Charles E. Herdendorf, in Sirois (2001) at 17. Andrea Czernecki, "Great Bear Lake Water Quality Research" (undated, presented to the October 8-9/02 GBL workshop in Déline) at 3.

²⁵ David Schindler in Sirois (2001) at 95.

make it the subject of management concern. These characteristics include: low water temperatures, even in summer (thus little stratification and the ability to turn over easily); high oxygen values; remarkable transparency/scarce plankton and bottom fauna; extremely low biological productivity; relatively few fish species/simple food webs; and high vulnerability to commercial fishery over-exploitation²⁶.

This Management Plan is founded on different perceptions, cultural values and systems of knowledge regarding GBL. In the final analysis, however, these differences can co-exist: they are complementary to each other. The Plan is founded on a convergence of concern for the lake and its watershed as whole, and on the consensus of several organizations, boards and agencies that they must work together – now – to ensure the protection of the GBL watershed’s values for the future. This consensus is perhaps best expressed by the common vision that initiated the preparation of this Management Plan: that “GBL must be kept clean and bountiful for all time”.

2.3 PLAN IMPLEMENTATION

A plan is only as good as its implementation. This Management Plan is based on the commitment, principles and values of Déline’s elders. They have laid the foundations of the Plan. Younger people from the spectrum of organizations represented by the GBL Working Group have worked out the details. But all will need to cooperate in the Plan’s implementation, and in its periodic review and amendment in the future.

This Plan was built through cooperation and it must be implemented through cooperation. Representatives of Déline feel that they have sometimes, after participating in the development of plans in the past, been by-passed in their implementation. Déline expects to participate in all aspects of the implementation of this Management Plan. The elders hope that, through this Management Plan, the era of Déline’s exclusion from decision-making and of others “acting in secret” can truly end, and that Déline can again plan a leading, stewardship role in the management of the GBLW.

One important qualifier needs to be born in mind throughout this Management Plan. Its implementation will require funding. While some funding has already been secured, further funding will be required to implement this Plan. The GBL Working Group is hopeful that such funding will be secured. In the meantime, *all commitments in this Management Plan must be understood to be contingent on the implementing bodies securing adequate funding to fulfill those commitments.*

2.4 THE GREAT BEAR LAKE WORKING GROUP

The preparation of this Management Plan was directed by the Great Bear Lake Working Group (the “GBL Working Group” or the “Working Group”). The Working Group is an *ad hoc* coalition of different organizations, regional management boards and agencies constituted in 2002 to prepare this Management Plan. The Working Group consists of many Déline elders and representatives of the Déline Dene Band, the Déline Land Corporation (“DLC”), the Déline Renewable Resources Council (“DRRC”), the Déline Self-Government team, the Déline Uranium Team, the federal Departments of the Environment (“DOE”), Fisheries and Oceans (“DFO”) and

²⁶ For the most recent compilation of information on the GBLW see: D.D. MacDonald et al. (2004) and Colin Macdonald, *State of the terrestrial knowledge for the Great Bear watershed*. Prepared for the Sahtu Renewable Resources Board (31 March 2004) (hereafter cited as Macdonald (2004)).

Indian Affairs and Northern Development (“DIAND”), the territorial Department of Environment and Natural Resources (“ENR”), the SLUPB, the SRRB, the Mackenzie Valley Environmental Impact Review Board (“MVEIRB”), and the Canadian Parks and Wilderness Society - NWT Chapter. The Sahtu Land & Water Board (“SL&WB”) is an observer of the management planning process.

The GBL Working Group has no legislative mandate and no authority other than the authorities exercised by its individual members. It has prepared this Management Plan on the basis of consensus among its members.

In the preparation of the Management Plan, the GBL Working Group met on several occasions between October 2002 and May 2005. The Working Group was supported by a Technical Working Group, and a neutral facilitator and plan drafter in turn supported both. The Management Plan incorporates the main conclusions of the GBL Working Group’s Management Framework for GBL²⁷.

2.4 NATURE, STRUCTURE AND APPROACH OF THIS MANAGEMENT PLAN

Audiences, Style and Structure: This Management Plan is written so as to be both technically accurate and accessible to people of different backgrounds: the people of Déline, the regional management boards established by the SLCA and the MVRMA, government management agencies and the general public. It attempts to weave together culturally different perspectives and values, and readers are asked to bear these differences in mind in using the Plan.

Sahtugot’ine traditional law and management practices are passed on in many forms, including the elders’ stories and teachings. Many chapters of the Management Plan thus begin with such a story or teaching. By adopting this style and by incorporating traditional knowledge throughout, the GBL Working Group intends to recognize the role of the elders in the management of GBL, bring the Sahtugot’ine and the larger Canadian legal systems together, and find a way of managing the land that respects both systems.

The Management Plan is divided into four parts:

- e. The Executive Summary summarizes the Plan’s conclusions. It is intended for those less comfortable with longer written documents.
- f. The main body of the Plan gives a fuller explanation of the Plan’s reasoning.
- g. The Plan is supported by a Research and Monitoring Plan for GBL and its Watershed (Appendix 2) as well as by the Sahtu Atlas²⁸.
- h. Finally, throughout its preparation, the written Plan was supported by various oral presentations to the elders and others more comfortable with the oral communication tradition. These oral presentations should continue throughout Plan implementation.

²⁷ Great Bear Lake Working Group, *Moving the Stone: a Management Framework for Great Bear Lake.*, directed and approved by the Great Bear Lake Working Group, facilitated and drafted by Tom Nesbitt (May 15, 2003) (hereafter cited as GBLWG (2003)).

²⁸ Sahtu GIS Project, *The Sahtu Atlas* (Altona: Friesens, 2004).

Relationship between Rights Recognized in the SLCA, the DSGA and this Management Plan:

This Management Plan is subject to the SLCA and the resource management regime and the system of rights and responsibilities set out in that Agreement. It is also subject to the DSGA, to the extent that that Agreement applies to the GBL watershed, and to future amendments to either Agreement. It is to be interpreted so as to be consistent with these Agreements. It does not diminish in any way participants' rights as recognized in either Agreement.

For greater certainty, the Management Plan does not diminish participants' rights to harvest wildlife, trees and plants as set out in Chapters 13, 14 and 15 of the SLCA, participants' right of access as set out in 13.4.10 of the SLCA, and participants' right to travel and establish and maintain hunting, trapping and fishing camps as set out in 13.4.11 of the SLCA.

The Management Plan does not affect the special harvesting areas established by the SLCA or the exercise of participants' wildlife harvesting rights within these areas.

Scope, Nature and Focus: The Management Plan is comprehensive in its scope. It deals with:

- a. evolving management relationships and responsibilities, and particularly the development of an operational management capacity and responsibility in Déline;
- b. land and water use and land use planning, as these terms are defined in the SLCA and the MVRMA;
- c. several other resource management issues (e.g., culture and education, research and monitoring, and contaminated and waste site remediation).

The Management Plan is an evolving document. Both the Executive Summary and the main body of the Plan are divided into several projects addressing different aspects of the management of GBL and its watershed. They are called "projects" to underline the evolving and ongoing nature of the work needed to protect the lake and its watershed over time. This is only the first edition of the Plan. It focuses on priority issues. Much remains to be learned about the functioning of the lake and its watershed. While relatively comprehensive in scope, the Plan is thus selective in its focus. The Plan and the projects that comprise it will need to be adapted and amended over time, as our knowledge of GBL and its watershed increases, as management work on the watershed progresses, and as the management role played by the community of Déline grows.

Geographic Scope: This Management Plan deals only with the Sahtu portion of the GBL watershed (Map 2). The GBL Working Group hopes that authorities outside the Sahtu settlement area will work in future with Sahtu authorities, including representatives of Déline, to give similar protection to those parts of the watershed that fall outside of the Sahtu settlement area, including the Camsell, Johnny Hoe and Dease River watersheds.

Throughout this Management Plan, for brevity's sake, "GBLW" means GBL and the Sahtu portion of its watershed.

With the exception of community water licenses, which are within the jurisdiction of the SL&WB and which are addressed in Chapter 4 of this Management Plan, the Plan does not deal with lands within community boundaries.

The Great Bear River This Management Plan does not address issues associated with the Great Bear River and its watershed, including potential hydro development on that River, since the Great Bear River falls outside of the GBLW. The Working Group recommends that the SLUPB and the MVEIRB address issues regarding the Great Bear River (including fish migrations and water levels) that could affect the GBL and its watershed. The Working Group urges these Boards, and indeed all parties, to respect the fundamental place of Déline authorities in decisions affecting the Great Bear River, including potential hydro development on that River.

Legal References: While legal authorities will be referenced throughout this Management Plan, two stand out in particular. They are the SLCA and the MVRMA. They are fundamental to the future management of GBL and its watershed. It is urged that readers become familiar with these documents (and the DSGA, when it is complete) and that they consider the Management Plan in the context of these documents.

Approach: This Management Plan is divided into several complementary chapters. Each chapter is sub-divided so that it:

- a. sets out a vision for that part of the Plan the next 10 to 15 years;
- b. summarizes relevant contextual information;
- c. identifies goals and objectives, so as to focus efforts to achieve the stated vision;
- d. identifies (as appropriate) mandatory policies, conditions and prohibitions.

2.5 THE LARGER MANAGEMENT CONTEXT

This Management Plan sits within and depends for its implementation upon a much wider management context. This context can be summarized as follows:

- a. In 1993, the Government of Canada, the Government of the Northwest Territories (“GNWT”) and the Dene and Metis of the Sahtu settlement area ratified the SLCA. In 1998, Parliament passed the MVRMA into law.
- b. Together, the SLCA and the MVRMA provide for the establishment of several Sahtu-government joint regional management boards, including: the MVEIRB, SLUPB, the SL&WB, and the SRRB. These regional management boards have jurisdiction for a wide range of land, water and wildlife management matters throughout the Sahtu settlement area, including environmental assessment, the preparation of the Sahtu Land Use Plan, land and water management (including the deposit of wastes) and wildlife management.
- c. Following the ratification of the SLCA, several Sahtu resource management bodies were also created, including DLC, the DRRC and SSI. These bodies again play key roles in land, water and wildlife management in the Déline District.
- d. The DLC, the Déline First Nation, the Government of the Northwest Territories and the Government of Canada are currently negotiating the DSGA. In June/03, they initialed an Agreement-in-Principle²⁹. While key issues remain to be negotiated, including economic

²⁹ Déline Self-Government Agreement-in-Principle for the Sahtu Dene and Métis of Déline (June 16, 2003) (hereafter cited as the Self-Government AIP).

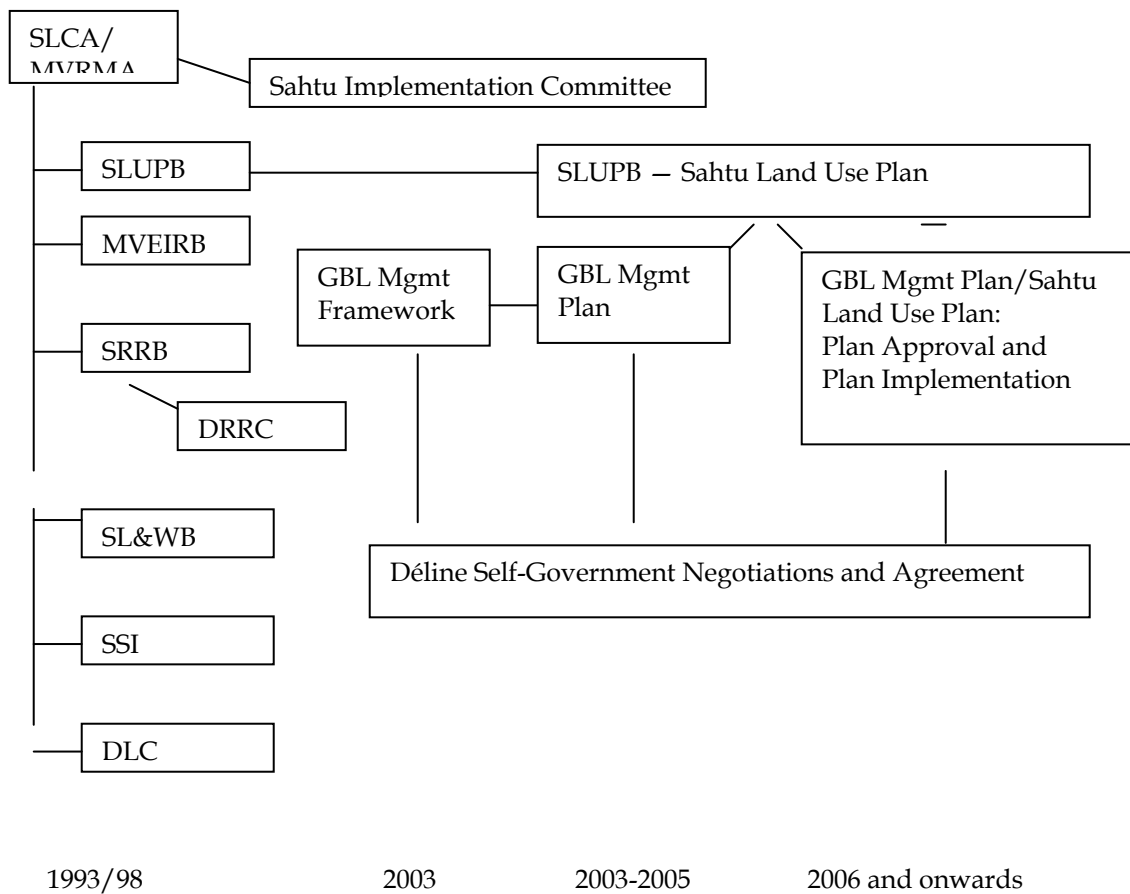
development, tourism and the use, management, administration, control and protection of settlement lands, the AIP is an important milestone in the evolving role that Déline – and the Déline First Nation Government – will play in the future management of the GBLW.

- e. In October/02, the GBL Working Group constituted itself and agreed to a common vision for GBL: that “GBL must be kept clean and bountiful for all time”³⁰. In May/03 the GBL Working Group approved its GBL Management Framework³¹.
- f. In January/03, the SLUPB released its Sahtu Preliminary Draft Land Use Plan for public review. In January, August and November/04, the GBL Working Group notified the SLUPB that it would be preparing and recommending a special management regime and conservation zones for the GBLW, to replace those provisions in the Sahtu Preliminary Draft Land Use Plan dealing with the GBLW.
- g. This draft Management Plan is recommended to the SLUPB, for inclusion in the draft Sahtu Land Use Plan. GBL Working Group members reserve the right to provide further comment on the Management Plan as part of the public review of the SLUPB’s draft Land Use Plan.
- h. The issue of the evolving roles played by Déline organizations in the management (including the operational management) of the GBLW is addressed in Chapter 3 of this Management Plan and will be worked out over time.

This larger management framework can be illustrated as follows.

³⁰ See Karen Hamre (Northwest Territories Chapter of the Canadian Parks and Wilderness Society), *Report on Great Bear Lake Workshop, Déline Cultural Centre, Déline, NWT, October 8-9, 2002* (undated).

³¹ GBLWG (2003).



3. MANAGEMENT RELATIONSHIPS AND RESPONSIBILITIES

ELDERS' STORY A group of people comes upon a huge stone. They must somehow move the stone. It blocks their way utterly. They are unable to go around it, over it or under it. Nor are they able to move it working individually or in small groups. They will only be able to move the stone if they all work together, each according to his or her role in the larger task. Only the truth, discovered by all people working together, can move the stone and establish a "road for all humanity". Through many generations, elders in the GBLW have addressed issues through regular gatherings, discussion and consensus. They say that we must use the same approach in the development and implementation of the GBL Management Plan. They say that GBL will only be preserved and kept healthy if the many organizations, agencies and boards with a role in the management of the lake and its watershed, including the three levels of government, cooperate and work sincerely together³².

APPROACH This chapter of the Management Plan addresses management relationships and responsibilities in the GBLW. It is divided into two parts: communications and coordination of work, and operational management. First, it sets out a vision for the future and summarizes contextual considerations. It then set out goals to focus the required work, and policy commitments.

3.1 VISION

In 10 to 15 years, the management regime in the GBLW should have the following characteristics:

- a. The regional management boards established by the SLCA and the MVRMA communicate and work closely with Déline, the Déline First Nation Government, and other Sahtu community residents and organizations.
- b. The regional management boards and Déline authorities play *complementary* roles in the management of the GBLW. Déline residents and organizations and the Déline First Nation Government play a leading, stewardship role in the operational or day-to-day management of the GBLW.

3.2 COMMUNICATIONS AND COORDINATION OF WORK

3.2.1 CONTEXT

The regional management regime established by the SLCA and the MVRMA are referenced above. In this management regime, the MVEIRB, the SL&WB, the SLUPB and the SRRB exercise a range of land, water and wildlife management responsibilities in the Sahtu settlement area. These responsibilities run throughout the Sahtu settlement area, on both Crown and settlement lands.

The general purpose of these regional management boards is "to enable residents of the Mackenzie Valley to participate in the management of its resources for the benefit of the residents

³² Morris Neyelle, personal communication (December 16/02), supplemented by Charlie Neyelle, personal communication (January 7/05).

and of other Canadians”³³. The boards typically include people residing in the communities of the Mackenzie Valley and the Sahtu settlement area. These residents do not, however, “represent” their communities in the sense that a person elected to public office might represent his or her constituents. Rather, they are appointed by the Minister of Indian Affairs and Northern Development³⁴, and they exercise the responsibilities set out in the SLCA and the MVRMA.

Although Déline played a key role in negotiating and ratifying the SLCA and although Déline residents happen to be members of the MVEIRB, the SL&WB and the SRRB, many Déline residents would like to see a greater role for Déline and Déline authorities in the management of the GBLW.

On June 26/03, the Déline Dene Band, the Déline Land Corporation, the Government of Canada and the Government of the Northwest Territories initialed the Déline Self-Government Agreement-in-Principle. Among other things, that AIP outlines the (future) jurisdiction of the Déline First Nation Government with respect to adult education, training and education support services³⁵, and its jurisdiction throughout the Déline District with respect to the language, culture, spiritual practices, customs and traditions of the Déline Sahtu Dene and Metis, including the preservation, protection, development and promotion of these things³⁶. The AIP does not resolve issues associated with the use, management, administration, control and protection of settlement lands, or with economic development, including tourism, but it identifies these subjects as subjects for future negotiation³⁷. Future self-government negotiations (or other processes) will presumably need to work out the respective jurisdictions, on settlement lands, of the Déline First Nation Government and the regional management boards. But whatever these ultimate jurisdictions, the DSGA, like the SLCA, will create institutions that will last for a very long time. Both these agreements cast a long-term perspective on GBLW management roles and responsibilities. This perspective should not be lost. The Déline First Nation Government administration could, in the future, exercise a spectrum of operational management responsibilities in the GBLW.

3.2.2 GOALS

- a. Improve the effectiveness of the regional management system in meeting the interests of Déline residents and organizations and other Canadians:
 - i. Improve communication between the regional management boards and Déline organizations and residents, including the Déline First Nation Government when it is established: better mutual understanding among regional management boards and Déline organizations and residents.
 - ii. Better co-ordination of the respective roles and work of the regional management boards and Déline organizations.

³³ MVRMA, subsection 9.1. For the more particular purposes of the regional management boards, see the relevant section of the MVRMA or the summary in GBLWG (2003).

³⁴ For more particulars on board members’ nominations and appointment, see MVEIRB, subsections 11(1), 38(2), 56(2) and 112(2).

³⁵ Déline Self-Government AIP, section 8.1.1.

³⁶ Déline Self-Government AIP, section 17.1.1.

³⁷ Déline Self-Government AIP, section 27.1.1.

Much has already been accomplished on the above goals:

- c. All four regional management boards now take part in or observe GBL Working Group workshops, and residents and board members now have a better understanding of their respective interests, roles and responsibilities;
- d. in 2003, the SRRB hired a communications officer; and
- e. throughout the preparation of this Management Plan, DIAND has funded the work of a local community coordinator. That person (Raymond Taniton and later Charlie Neyelle) has played a key role in the development of this Management Plan.

3.2.3 POLICIES

- a. Communication is a *responsibility* of every government department and agency, regional management board and community organization working in the GBLW. At the least, one or more individuals within each of these bodies should be charged with the responsibilities of communication and coordination, on the organization's behalf, with the organization's constituency and the other GBLW management bodies with which the organization works. Where necessary, communications-related training should be provided to these key individuals.
- b. Communications and coordination among the regional management boards and community authorities/residents are a particular focus of this Management Plan. The Great Bear Lake Working Group suggests that the regional management boards review the job descriptions of their resource people/technical staff. The object of this suggestion is that, wherever possible, regional management board communications should accommodate both the written and oral communication traditions, so that communications are carried out both in writing and orally. Board resource people should be used to consult, in writing and in person, with community authorities and residents. When an issue arises for a board, its resource person could present the issues before the board to community authorities, solicit community input on the issues, and report back to the board.
- c. Communications and coordination among community bodies and among community bodies, the regional management boards and government agencies are another priority of this Management Plan. Government should continue to fund the work of D eline's community coordinator.

3.3 OPERATIONAL MANAGEMENT

3.3.1 CONTEXT

The regional management boards established by the SLCA and the MVRMA carry out a wide range of what may be termed "policy-level" management responsibilities in the GBLW. Their primary responsibilities can be summarized as follows:

- a. The SLUPB prepares the Sahtu Land Use Plan and determines whether proposed activities are in compliance with approved plans³⁸.
- b. The MVEIRB is the main instrument in the Mackenzie Valley for environmental assessment and review³⁹.
- c. The SL&WB regulates the use of land and water and the deposit of waste, primarily through a system of land use permits and water licences⁴⁰.
- d. The SRRB is the main instrument of wildlife management in the Sahtu settlement area⁴¹.

Government agencies and departments exercise a range of land and resource management responsibilities in the GBLW . These responsibilities are too numerous to summarize here, but include reviewing and commenting on land use permits and water licence applications, environmental research and monitoring, the development of government policy, and regulatory enforcement. In general, government agencies and departments work closely with the regional management boards and Sahtu communities, including Déline, and government retains the ultimate jurisdiction for the regulation of land and water and the management of wildlife throughout the Sahtu settlement area⁴².

In the GBLW, “policy-level” decisions on the part of the regional management boards and government agencies are complemented by what are commonly termed “operational management” responsibilities. Examples of operational management are as follows:

- i. water licences and land use permits need to be inspected and (more generally) activities on GBL may need to be patrolled;
- ii. ecological and cultural research and monitoring need to be carried out, and logistical support for research and monitoring may need to be provided;
- iii. sport fishing licences need to be issued to those requiring them; and
- iv. enforcement actions (pursuant to the *Fisheries Act*, the MVRMA and the *Northwest Territories Waters Act* and their *Regulations*) may need to be undertaken.

As suggested above (Part 3.1), this Management Plan envisions Déline residents and organizations playing a leading, stewardship role in the operational management of the GBLW – a role complementary to the roles undertaken by the regional management boards. Déline’s ultimate role cannot, however, be precisely defined here because it will likely evolve, over time, as the operational management capacities of Déline residents and organizations and the Déline First Nation Government administration evolve. Nonetheless, the Management Plan sets out goals and policy to guide the development of an operational management capacity in Déline.

³⁸ MVRMA, ss. 41(1) and 47. See also: SL&WB, *Land Use Permit Process (Draft)* (Revised May 19, 2004) at 5 and 10.

³⁹ MVRMA, s. 114.

⁴⁰ MVRMA, ss. 58, 60, 67, 81.

⁴¹ SLCA, ss. 13.8.1, 13.8.23, 13.8.32. Note that wildlife is defined here and in the section 2.1.1 of the SLCA to include fish, mammals and birds.

⁴² SLCA, 25.1.1(c) and 13.3.1.

3.3.2 GOALS

- a. Provide for the development of a lead operational management capacity in Déline, and for Déline again playing a leading, stewardship role in the management of the GBLW:
 - i. Support initiatives on the part of Déline organizations and residents to develop the community's operational management capacity (including training and longer-term education).
 - ii. Within 1 to 5 years, support initiatives on the part of Déline organizations to take on operational management responsibilities, including environmental patrols and monitoring, guardian or "watch-person" programs, environmental research and the provision of logistical support to other agencies/researchers.
 - iii. Within 5 to 10 years, prepare and execute a community-based GBLW operational management plan by which the community can more systematically take on operational management responsibilities in the GBLW.
- b. Complement and support the system of land and resource management to be established by the combined effect of the SLCA, the MVRMA and the DSGA.

3.3.3 POLICIES

- a. This Management Plan envisages a long-term management relationship between Déline and the other management authorities in the GBLW. This relationship must be allowed to evolve, so that Déline can again play a leading, stewardship role in the operational management of the lake and its watershed. This relationship must reflect Déline's interest in maintaining the ecological and cultural integrity of the watershed. The Management Plan must be adapted to changing circumstances, and to the developing role of the Déline First Nation Government, when it is established. Without limiting the generality of the foregoing:
 - i. The three levels of government should meet, on a government to government basis, to identify, through negotiations, roles for the Déline First Nation Government in the exercise of GBLW management jurisdiction and authorities; and
 - ii. Déline authorities should work with the appropriate management authorities so that, over time, the operational management of the GBLW is increasingly coordinated and delivered out of a Déline office(s) which has the capacity to issue sport fishing licences, patrol activities in the watershed, administer a GBL registration system, carry out monitoring, provide logistical support, aid in/undertake research, and (ultimately) carry out inspections and enforce legislation and regulations.

4. LAND USE: THE SPECIAL MANAGEMENT ZONE

ELDERS' TEACHING The story of the water heart is set out at the beginning of this Management Plan. This part of the Management Plan expands on the philosophy and law underlying that story. The elders see the GBLW as one organism. They see the many rivers, streams and creeks that flow into and out of GBL as fulfilling the same functions as the veins, capillaries and arteries in the bodies of all creatures. Water unites and flows through and among all creatures. It plays an essential role both in the larger ecosystem and in the smaller ecosystems that comprise each creature. And the maintenance of water quality in the GBLW is as essential as the maintenance of the quality of the blood of any person or other creature.

The elders assert that the health of people and the land are directly connected – and that people are not in reality separate from the land and other creatures. Our “minds”, “souls” and “hearts” are directly tied to the health of the land. The use that we make of the land and other creatures – and the respect with which we treat them – will have a direct bearing on the health not only of ourselves but also of all aspects of the land. If we do not support the land, give it strength and treat it with utmost respect, the heart of Sahtu will not survive.

The GBLW is a special place for the people of Déline. Their ancestors have been part of and have cared for this place for countless generations. The elders assert that we in turn have a responsibility to treat this watershed with respect – to keep it alive⁴³. They want to protect it so that it can be used by the present generation and by future generations.

The GBL Working Group agrees with this perspective. For the many reasons set out in this Management Plan, GBL is a unique and special place, important to all Canadians. Together with its watershed, it must be protected for future generations.

APPROACH: This chapter of the Management Plan provides for the establishment of a Special Management Zone in the GBLW (Map 3). It discusses the concepts of ecological and cultural integrity, and it sets out a vision for the Special Management Zone. It then summarizes contextual considerations, identifies goals and objectives to focus the required work, and sets out binding policies, conditions and prohibitions applicable throughout the Special Management Zone. It identifies a Heritage Zone within the Special Management Zone. It identifies a need for improved caribou protection measures in the GBLW. And it makes recommendations regarding the air quality monitoring and regulation in the GBLW.

4.1 CONCEPTS

Three concepts are fundamental to this chapter of the Management Plan:

- a. **The Special Management Zone** The Special Management Zone includes all of the GBLW with the exception of Conservation Zones and Protected Areas, which are discussed in Chapter 5 of this Management Plan.
- b. **Ecological Integrity** The concept of ecological integrity gives us a way of thinking about the health of ecosystems and the stresses acting on them. It gives us the opportunity to identify goals and objectives (to focus our efforts towards maintaining ecological integrity)

⁴³ Charlie Neyelle, personal communication, June 25/04, supported by Alfred Taniton, comments in June 28-30/04 TWG workshop.

and to develop tests by which to determine the acceptability of proposed activities in the GBLW. Ecological integrity can be thought of as ecosystem health, or the natural condition of an ecosystem. An ecosystem has ecological integrity when:

- the structure and function of the system (or the particular collection of species in the system and the processes by which they are related) are not impaired by human-induced stresses; and
 - the system retains its resilience, in the sense that the diversity of organisms in it and the processes that support them are likely to persist.⁴⁴
- c. **Cultural Integrity** This Management Plan uses the terms “maintenance of the cultural integrity of the GBLW” as a short form for the agreed purpose of land use planning as set out in section 25.4.2 of the SLCA: to protect and promote the existing and future well-being of the residents and communities of the Sahtu settlement area, having regard to the interests of all Canadians, and paying special attention to the existing and future social, cultural and economic well-being of participants, land used by participants and the rights of participants⁴⁵. Like the concept of ecological integrity, the concept of cultural integrity gives us a way of thinking holistically about the health of the community of Déline and its relationship to the GBLW . It gives us the opportunity to identify goals and objectives to focus our efforts, and to develop tests by which to determine the acceptability of proposed activities in the GBLW.

4.2 VISION

In 10 to 15 years, the Special Management Zone should have the following characteristics:

- a. Ecological integrity: The ecological integrity of this unique watershed is maintained and, where necessary and feasible, restored. GBL is kept clean and bountiful for all time. Activities in the watershed are designed, regulated and carried out with the particular characteristics of GBLW ecosystems in mind, including their generally very low biological productivity and slowness to recover from degradation. The generally pristine quality of GBL water is maintained. All resource uses are consistent with conservation.
- b. Cultural integrity: Activities in the GBLW protect and promote the existing and future social, cultural and economic well-being of residents of the watershed, while also having regard to the interests of all Canadians. Since a significant degree of self-determination is fundamental to social, cultural and economic well-being, any assessment of the acceptability of proposed activities in the GBLW gives very strong consideration to whether Déline supports the

⁴⁴ Definition derived, with changes, from Parks Canada, *Ecological Integrity Statements for National Parks: a Guide to Their Preparation* (1997).

⁴⁵ “25.2.4 The following principles shall guide land use planning in the settlement area:
(a) the purpose of land use planning is to protect and promote the existing and future well-being of the residents and communities of the settlement area having regard to the interests of all Canadians;
(b) special attention shall be devoted to:
i. protecting and promoting the existing and future social , cultural and economic well-being of the participants;
ii. lands used by participants for harvesting and other uses of resources; and
iii. the rights of participants under this agreement; ...”

proposed activities. Déline residents and others are able to find work in the community and on the land.

- c. “Multiple Use”: The Special Management Zone is used for many purposes. All uses of the land are consistent with the requirements of the SLCA, the existing regulatory regime, and this Management Plan, including the tests below for ecological and cultural integrity. The renewable resource economy is developed under the leadership of Déline organizations and is the mainstay of the land-based economy.
- d. Conservation Zones: Special places in the GBLW which need a higher level of protection than that provided by the Special Management Zone are identified and protected. These Conservation Zones and Protected Areas contribute substantially to the ecological and cultural integrity of the GBLW.⁴⁶
- e. One law: The management of the GBLW – whether in the Special Management Zone or in Conservation Zones and Protected Areas – finds an accommodation between Sahtugot’ine traditional law, beliefs and management practices and the larger legal and management system. Planning and management use an integrated approach, and all perspectives and all relevant information are considered in decision-making.

4.3 CONTEXT

4.3.1 ECOLOGICAL CONSIDERATIONS

The importance of GBL to the people of Déline has been suggested above (Part 2.2). The GBLW is the foundation of Sahtugot’ine cosmology, history and traditional law, of the transmission of the culture from the elders to the younger generation, and of Déline’s renewable resource economy. The land “contains” the people of Déline; they are part of it, and they define themselves largely by their relationship with it. They are willing to use and share the land with others (and they have traditionally welcomed others to their territory) but only on condition that the land and the community are kept healthy (that ecological and cultural integrity are maintained) and that Déline plays a fundamental role in GBLW management.

The GBLW is important to Canada as a whole because of its ecological, cultural, economic and wilderness values. Current knowledge of the GBLW is described in MacDonald (2004) and Macdonald (2004). Unless otherwise noted, the following summary is based on these sources:

- a. The GBLW covers a total of 150,000 square kilometers and includes a diverse range of landforms, climate and biological communities, including three of the 15 ecozones and nine of the 194 ecoregions present in Canada.
- b. The GBLW spans two major physiographic regions: the erosion-resistant Precambrian Shield to the north and south-east, and the Mackenzie Lowlands to the south and west. Soils in the two zones vary accordingly, with the Precambrian Shield being characterized by sparse soils and rocky outcrops, and the Mackenzie Lowlands by much more substantial soils over thick glacial till.

⁴⁶ Conservation Zones and Protected Areas are addressed separately, in Chapter 5 of this Management Plan.

- c. The watershed sits astride the Arctic Circle. It is in the northern continental climatic regime, the main features of which are long, cold winters, short cool summers, large annual ranges in temperature, and little precipitation.
- d. GBL is close to the tree line, with the forests to the south and west thinning and giving way to the north to tundra, with trees only in sheltered areas.
- e. The Camsell and Johnny Hoe Rivers are the main inflows to GBL, contributing 21% and 12% respectively of the total inflow to the lake, while the Dease, Haldane, Whitefish and Sloan Rivers are the other major inflows. GBL is drained by the Great Bear River, which flows into the Mackenzie River and ultimately the Arctic Ocean.
- f. GBL's unique characteristics make it the subject of management interest and concern. In addition to its being the ninth largest lake in the world, both in terms of surface area and volume, GBL is the largest lake entirely within the borders of Canada, the world's largest mass of cold fresh water, and the 19th deepest lake in the world (maximum depth 446 m). The lake has a relatively small drainage basin in relation to its area, a low water replacement rate, and a relatively long water residence time (124 years). GBL has very little stratification or variation in temperature, surface to bottom, and the lake is thus able to "turn over" or mix waters relatively easily.
- g. GBL has very clear, transparent waters (maximum recorded Secchi depth 30 m). Its productivity is very low, with standing crops of phytoplankton and zooplankton (microscopic plants and animals) being among the lowest found in freshwater systems and mainland lakes in North America. The food web of GBL is a relatively simple one, with benthic (bottom dwelling) invertebrates being an important food source for fish species. The lake's low productivity, low inflows of nutrients from surrounding areas, and simple food web suggest a vulnerability to disturbance activities and potentially slow recovery times, were impacts to occur.
- h. GBL's subsistence fishery is very important to the community of Déline. While several species are harvested, lake trout is the most heavily-harvested species, and lake cisco and whitefish also form a significant component of the subsistence fishery⁴⁷. GBL is also the last of the Great Lakes to contain a wide diversity of "morphotypes" or forms of lake trout. Morphological and genetic diversity allow populations to better adapt to environmental changes over the long term. This diversity has been extinguished or greatly reduced in the other Great Lakes due to over-harvesting and the introduction of non-native species. GBL thus provides one of the only remaining models of how lake trout populations naturally function in a large lake ecosystem⁴⁸.
- i. GBL's trophy-size lake trout population is worth special mention in this Management Plan, given the importance of this fishery to the lake and the local economy. Trophy grayling are also economically important. Notwithstanding the apparent abundance of trophy-size fish, the very slow growth rate of these fish and the low primary productivity of GBL mean that their harvest mortalities must be kept at a low to moderate level.

⁴⁷ Kim Howland (DFO), personal communication based on SRRB Harvest Study (February 25/05), hereafter cited as Howland (2005).

⁴⁸ Howland (2005).

- j. The diverse ecoregions of the GBLW provide habitat for a wide range of terrestrial plant and animal species. Harvest statistics gathered by the SRRB indicate that Sahtu hunters and trappers commonly harvest approximately 20 large and small mammal species and 30 bird species. Of these, barren ground caribou are clearly the most economically important to the community of Déline. Between 2000 and 2003, for example, Déline hunters harvested between approximately 1200 and 1600 barren ground caribou annually, while in 1999 only approximately 30 boreal woodland caribou and 15 moose were taken. Musk-ox, the other large mammal, is used largely for sports hunting purposes.
- k. The GBLW provides habitat to three important herds of barren ground caribou. The Bathurst herd, the largest in the NWT, uses the area between GBL and Great Slave Lake (the "Slave Geological Province") to the south. The total population of this herd, as estimated in 2003 from the number of breeding females, is 186,000, ± 39,700. In 1996, it was estimated at 350,000, ± 95,000. The causes for this change in herd size are uncertain. Caribou herd size varies naturally over time in response to factors such as climate, weather, fire and predation, and other North American migratory caribou herds have also recently declined in numbers. Human influences, including harvesting, wounding loss, wastage, disturbance and habitat change can also affect rates of decline and recovery⁴⁹.
- l. Recent work on what was previously termed the Bluenose barren ground caribou herd has confirmed that this herd is actually composed of two herds: the Bluenose-West and the Bluenose-East herds. These herds most often over-winter north/north-west and south/south-west of GBL respectively. While the Bluenose-West herd appears to be healthy, some researchers have suggested the need to monitor the Bluenose-East herd carefully, because of the herd's large size relative to its range and potential declines in numbers due to shortages of food.
- m. The Bluenose-East herd is of particular significance to this Management Plan because of its value to the Sahtu settlement area as a whole and to the community of Déline in particular. In 2000, Paterson et al. estimated this herd to number approximately 104,000, ± 22,100 animals⁵⁰. In terms of the weight and economic value of the harvest, the Bluenose-East herd is clearly the most important harvest resource of the Sahtu settlement area. Using Sahtu Harvest Study numbers, ENR estimates the average yearly Sahtu harvest of this herd to be approximately 2500 animals⁵¹. Using a \$20/kg meat replacement value, ENR estimates the herd's meat replacement value alone, were hunters to buy comparable meat in their local stores, to be worth \$2.8 million to the Sahtu settlement area annually. This estimate does not include the cultural value of the herd and its harvest, nor the herd's potential value to the big game hunting industry in the Sahtu.
- n. ENR radio-tracking studies show that Bluenose-East herd generally migrates to and concentrates in the Edaiila/Caribou Point area during mid-July to mid-October⁵². Thereafter, most of the herd migrates south and west, typically over-wintering south and south-west of GBL. Given the importance of Edaiila to the herd and the importance of the Bluenose-East herd to the Sahtu settlement area, this Management Plan recommends protection for Edaiila

⁴⁹ Anne Gunn, personal communication (July 30/04).

⁵⁰ Brent R. Patterson, Benjamin T. Olsen and Damien O. Joly, "Population Estimate for the Bluenose-East Caribou Herd Using Post-Calving Photography (March 2004) 57 Arctic 47.

⁵¹ Alasdair Veitch, *What biologists know about caribou in Sahtu*, Presentation to the January 6/05 GBL Workshop in Déline (January 6, 2005). hereafter cited as Veitch (2005).

⁵² Veitch (2005).

(Chapter 5) and the development of improved caribou protection measures as part of the updating of the *Co-Management Plan for the Cape Bathurst, Bluenose-West and Bluenose-East Caribou Herds*⁵³ (Part 4.7).

- o. ENR's radio-collaring data indicates that the Bluenose-West herd often concentrates during the fall rut (October) in the northern part of the GBLW/the Special Management Zone⁵⁴. Thereafter this herd generally migrates west and south, with concentrations over-wintering in the Whitefish River/Luchaniline area north of Déline. This Management Plan thus recommends the development and application of improved caribou protection measures during these parts of this herd's life cycle.
- p. Most of the calving and post-calving grounds of the Bluenose-West herd are protected by Tukturnogait National Park, and the protection of these calving and post-calving grounds is one of the primary purposes of this national park⁵⁵. In contrast, the calving and post-calving grounds of the Bluenose-East herd (in the western parts of the Nunavut Settlement Area and north of the GBLW) are currently afforded no special land use plan or legislative protection whatever.
- q. Déline's elders report that boreal woodland caribou move along the Mackenzie River corridor, west of Déline. In May 2002, this species was listed as a threatened species under the *Species at Risk Act* ("SARA")⁵⁶. ENR is now preparing a status report on this species, after which it will prepare a recovery strategy under SARA⁵⁷.
- r. In earlier times, musk-ox were distributed across the tundra of northern Canada. By the early 20th century, however, commercial harvesting had reduced their numbers to only several hundred individuals. Subsequent protective legislation has allowed the recovery of musk-ox populations in various parts of the NWT and Nunavut, and a 1997 survey estimated the number of non-calf individuals north and north-east of GBL at approximately 1500 animals. The range of musk-ox in the Sahtu also appears to be expanding. Musk-ox remain under quota in the GBLW, however, and in the past several years Déline has held 15 tags for sports hunting and 3 for other purposes⁵⁸.
- s. Grizzly bear is the other large and important mammal in the GBLW. There has been no recent census of grizzly bear numbers in the GBLW, but numbers using the watershed could probably be extrapolated from studies in the Inuvialuit Settlement Region and the Slave Geological Province. Studies in the latter area suggest that grizzly bears use a very large home range (in the order of 10,000 to 11,000 square kilometers), that disturbance in one part of their home range could have implications on numbers in another part, and that grizzly bears are sensitive to roads, mines and food wastes in the vicinity of camps⁵⁹.

⁵³ Government of the Northwest Territories, *Co-Management Plan for the Cape Bathurst, Bluenose-West and Bluenose-East Caribou Herds* (undated) 41 pp.

⁵⁴ Nagy, J., W. Wright, T. Slack, and A. Veitch, *Seasonal Ranges of the Cape Bathurst, Bluenose-West, and Cape Bathurst Barren-ground Caribou Herds*. (Inuvik: ENR, unpublished manuscript).

⁵⁵ *The Tukturnogait Agreement: An Agreement to Establish a National Park in the Inuvialuit Settlement Region near Paulatuk, Northwest Territories* (June, 1966), s. 2.1.

⁵⁶ http://www.speciesatrisk.gc.ca/search/speciesDetails_e.cfm?SpeciesID=636

⁵⁷ Alasdair Veitch, personal communication (May 12/05).

⁵⁸ Alasdair Veitch, personal communication (July 26/04).

⁵⁹ Alasdair Veitch, personal communication (July 26/04).

- t. In summary, the GBLW is a unique, special and vulnerable place. The watershed is a largely intact and pristine ecosystem that stands at the confluence of three of Canada's 15 ecozones. The unpolluted nature of most of its waters, its healthy fisheries and the presence of grizzly bear and barren ground caribou in healthy numbers throughout the watershed suggest an ecosystem with a high degree of ecological integrity⁶⁰. But the effects of over-harvesting of large trout have been seen in the past in parts of GBL; the effects of over-harvesting of musk-ox almost drove that species to extinction; boreal woodland caribou is now listed as a threatened species under SARA; and in some areas, the effects of poor mining practices have scarred the land and polluted local waters. Diligence is required if the ecological integrity of the GBLW is to be maintained.

4.3.2 LAND TENURE

The Special Management Zone includes extensive areas of "settlement lands" (Map 4). Settlement lands – sometimes also called "selected lands" – are lands outside local government boundaries which were granted pursuant to section 19.1.2 of the SLCA, and in which the DLC holds the title. Settlement lands comprise two sorts of lands:

- i) lands in which the DLC holds "surface rights", or the fee simple minus the mines and minerals (on these lands, the mines and minerals remain with the Crown, under the administration of the Minister of Indian Affairs and Northern Development); and
- ii) lands in which the DLC holds both "surface" and "subsurface rights", or the fee simple including the mines and minerals⁶¹.

4.3.3 MINERAL EXPLORATION AND DEVELOPMENT

Mining and mineral exploration have taken place in the eastern part of the GBLW since at least 1930. The mines are all now abandoned or non-operational, however, including the Port Radium, Eldorado, Echo Bay, Contact Lake, Terra, Northrim, Norex and Smallwood Lake Mines. Nonetheless, there remain several active mineral claims and some mineral leases in the vicinity of these earlier mines (Map 5).

In January 2004, the Director of Mineral Resources of the Natural Resources and Environment Branch of DIAND issued prospecting permits along the north and north-eastern shores of GBL, and in January 2005, the Director issued further prospecting permits in the eastern parts of Edaiila, in various places in the south-eastern and southern parts of the GBLW, and in the vicinity of the Whitefish River/Luchaniline, just north of Déline (Map 5). These permits give the permit holder the exclusive right to prospect for minerals, to locate mineral claims, and to record mineral claims within the boundaries of the prospecting permit, provided that the permit holder meets work requirements set out in the *Canada Mining Regulations*. With the recording of a claim, the claim holder has the exclusive right to prospect for minerals and develop any mine within the

⁶⁰ Alasdair Veitch, personal communication (July 26/04).

⁶¹ See Chapter 19 of the SLCA. For Sahtu water rights, see Chapter 20 of the SLCA, and for access to settlement lands, see Chapter 21.

boundaries of the recorded claim, subject to other legislation and regulations in force at the time⁶².

The Special Management Zone provides for the exercise of the above rights, subject to the policies, conditions and prohibitions as set out in Parts 4.5 and 4.6 below.

4.3.4 AIR QUALITY CONSIDERATIONS

Air quality is an issue in the GBLW. There are several aspects of this issue, which can be summarized as follows⁶³:

- a. The issue goes to the monitoring of emissions and ambient air quality in the GBLW, as well as to the development and regulation of air quality standards.
- b. On the monitoring side, ENR currently monitors air quality at four stations (most remotely operated) in the NWT: Yellowknife, Inuvik, Norman Wells and Fort Liard. The focus is on the common or “criteria” air contaminants: ground-level ozone, carbon monoxide, oxides of nitrogen, sulphur dioxide, total suspended particulates, fine particulates and hydrogen sulphide⁶⁴. Not all contaminants are monitored at every station, but new instruments are added as funding becomes available. The purpose of the program is to establish and publish a baseline against which to measure future changes in ambient air quality in the NWT. The air quality data is summarized in an annual report and published on the ENR website.
- c. Notwithstanding “b” above, residents of Déline are uncertain whether ambient air in their community is consistent with human and environmental health. They have very little information on how air quality in their community rises and falls during the year, on trends in air quality over time, on specific inputs (e.g. the power plant in Déline), or on effects on ecological and cultural integrity. They suggest a holistic approach to the monitoring of air quality, the dissemination of information on results, and to the regulation of all aspects of environmental integrity, including air quality.
- d. The GNWT has developed guidelines for ambient air quality in the NWT (the “Guidelines”)⁶⁵. These *Guidelines* define and set standards for Fine Particulate Matter, ground level ozone, sulphur dioxide and total suspended particulates. The *Guidelines* for fine particulate matter and ground level ozone are based on standards developed by the Canadian Council of Ministers of the Environment⁶⁶. The *Guidelines* for sulphur dioxide and total suspended particulates are based on National Ambient Air Quality Objectives⁶⁷. The standards in the *Guidelines* are therefore widely accepted and based on sound science.

⁶² *Canada Mining Regulations*, ss. 11(1), 27, 29-34 and 73(2).

⁶³ The analysis which follows is a “first take” on the issue only. The issue arose late in the preparation of this Management Plan, and the constraints of time and budget did not allow a more comprehensive study or a legal opinion: Tom Nesbitt.

⁶⁴ Graham Veale, personal communication (March 3/05).

⁶⁵ Resources, Wildlife and Economic Development, *Guidelines for Ambient Air Quality Standards in the Northwest Territories* (December 2002).

⁶⁶ Canadian Council of Ministers of the Environment. *Canada-Wide Standards for Particulate Matter and Ozone* (Quebec City: June 5-6, 2000).

⁶⁷ Graham Veale, ENR, pers. comm. Feb. 21/05

- e. As currently drafted, the *Guidelines* are guidelines only, to be used in assessing the acceptability of emissions from existing and proposed activities and for reporting on the status of air quality in the NWT. They do not currently have the status of mandatory standards, enforceable under regulation. But they are based on national standards and objectives that are to be implemented in each jurisdiction as the jurisdiction deems appropriate. They are therefore appropriate as a basis for enforceable regulations, if that is the direction that the responsible jurisdiction(s) wishes to take.
- f. There is currently no comprehensive regulation of air quality in the GBLW or in the Mackenzie Valley. Again, this Management Plan can only very briefly summarize the current situation:
 - i. There are currently no air quality regulations under the MVRMA. In the absence of such regulations, it is not clear whether the SL&WB or its inspectors have any authority to regulate air quality in the Sahtu settlement area⁶⁸. Any attempt to regulate air quality on the Board's part could be subject to legal challenge for action in excess of the Board's jurisdiction.
 - ii. The NEB may be able to regulate emissions from oil and gas operations, but any such regulation would be limited by the sectoral jurisdiction of that Board.
 - iii. There does not appear to be any other comprehensive federal regulation of air quality in the NWT. In Canada, most federal regulation of air quality is under the *Canadian Environmental Protection Act* (CEPA). But regulations under that *Act* are designed with the constitutional division of powers in mind — provinces are the primary regulators of air quality in Canada — and existing regulations under CEPA do not address the substances covered by ENR's *Guidelines* or most other substances which would be of concern to the residents and communities of the Mackenzie Valley and the NWT.

4.4 GOALS AND OBJECTIVES

- a. Maintain the ecological integrity of the GBLW and particularly the water quality of the GBLW:

⁶⁸ Subsection 59(1) of the *MVRMA* limits the SL&WB's jurisdiction to uses of land for which a permit is required. Further, the Board may only issue, amend, renew, suspend and cancel permits and authorizations *in accordance with the regulations*. But the existing regulations — the *Mackenzie Valley Land Use Regulations* — do not provide for the regulation of air quality. Subsection 60(1) establishes the Board's jurisdiction in respect of all uses of waters and deposits of waste for which a licence is required under the *NWT Waters Act*. But "waste" is defined in that *Act* to mean any substance that, if added to water, would degrade or alter the quality of water to an extent that it is detrimental to its use by people, animals, fish or plants. Substances released into the air would thus have to be regulated via their ultimate effects on the usability of water, and it is questionable whether that sort of regulation falls within the purpose of the *NWT Waters Act*. There are admittedly ambiguities in the *MVRMA* (e.g., the use of "environment" in section 69), but these ambiguities are not likely sufficient to establish the SL&WB's jurisdiction to regulate air quality.

- i. proponents seeking authorization for activities in the GBLW demonstrate to the appropriate regulatory authorities that all aspects of their proposed activities are consistent with the ecological integrity of the GBLW;
 - ii. all activities in the GBLW are carefully monitored to ensure the maintenance of ecological integrity;
 - iii. an appropriate level of security is required for all licences for water use or the deposit of wastes in the Special Management Zone.
- b. Provide for the sustainable use of resources in the Special Management Zone:
 - i. developers bear the onus of demonstrating that all activities in the Special Management Zone are consistent with the maintenance of ecological and cultural integrity; and
 - ii. GBLW fisheries are maintained at sustainable levels, consistent with the particular objectives of each fishery.
- c. Maintain the cultural integrity of the GBLW. Activities in the GBLW are consistent with the maintenance of cultural integrity:
 - i. activities in the GBLW are designed and implemented in close consultation with Déline authorities. Consultation emphasizes the prevention of adverse impacts and is initiated early in the planning and applications-review processes; and
 - ii. where appropriate, given the scale of activities or their potential impacts on cultural integrity, consultation is characterized by joint planning on the part of proponents and the appropriate Déline authorities.
- d. Allow for the adaptation of this Management Plan (and of its policies, conditions and prohibitions) as experience develops in the GBLW.

4.5 POLICIES, CONDITIONS AND PROHIBITIONS

4.5.1 NATURE OF POLICIES, CONDITIONS AND PROHIBITIONS

Several things should be said by way of clarification of the policies, conditions and prohibitions in Parts 4.5 and 4.6:

- a. The appropriate authorities shall interpret and apply these policies, conditions and prohibitions as mandatory requirements, within sections 46 and 47 of the MVRMA, applicable to all activities in the Special Management Zone authorized subsequent to the approval of the Sahtu Land Use Plan.
- b. For permits, licences or other authorizations in the Special Management Zone issued prior to the approval of the Sahtu Land Use Plan, including those within existing prospecting permits, the appropriate authorities shall interpret and apply the policies, conditions and prohibitions in Part 4.5 and 4.6 as operational standards applicable to any renewal or substantial amendment of such permits, licences or other authorizations.

- c. They are in addition to existing legislative and regulatory requirements, and they are to be interpreted so as not to reduce or diminish existing legislative or regulatory requirements⁶⁹. Moreover, all references to legislation or other standards should be interpreted to mean legislation and standards as amended from time to time.
- d. They apply throughout the Special Management Zone, on both Crown and settlement lands.
- e. They vary in the generality of the tests they require, from the more general (the policies) to the more specific (conditions and prohibitions).
- f. They apply to activities as defined in Chapter 1 of this Management Plan.
- g. They are to be used by the SLUPB in determining whether a proposed activity is compliance with a land use plan, and by other appropriate authorities, including the SL&WB, in setting terms and conditions on permits, licences or other authorizations⁷⁰. Through setting terms and conditions on permits, licences and other authorizations, the appropriate authorities are to ensure that rights holders exercise their rights in accordance with the policies, conditions and prohibitions of Parts 4.5 and 4.6.
- h. They are subject to the resource management regime and to the system of rights and responsibilities set out in the SLCA and the DSGA, to the extent that that Agreement applies to the Conservation Zones. They do not diminish in any way participants' rights as recognized in the SLCA (including harvesting rights and the right to travel and establish and maintain hunting, trapping and fishing camps).

4.5.2 POLICIES

- a. The GBLW is part of the natural and cultural heritage of the Sahtugot'ine, other Canadians, and indeed the world. The lake and its watershed must be protected for generations to come. The conservation of renewable resources and the maintenance of the ecological and cultural integrity of the GBLW must be the first priority in all management decisions affecting the lake and its watershed. All activities in the GBLW must be consistent with the maintenance of the ecological and cultural integrity of the GBLW.
- b. The management of the Special Management Zone must also accommodate the use, by Déline individuals/organization and others, of renewable and non-renewable resources, provided that such use is consistent with the terms of the SLCA and the policies, conditions and prohibitions of this Management Plan. Wherever possible, proponents and the

⁶⁹ The Plan takes place within a comprehensive regulatory regime. This regime cannot be summarized here. Those interested in better understanding this regime should consult the SLCA and the MVRMA and other legislative authorities directly. A useful introduction to the SL&WB's permitting process can be found in SL&WB, *Land Use Permit Process (Draft)* (Revised May 19, 2004), and SL&WB, *Water Licence Process (Draft)* (Revised May 19, 2004).

⁷⁰ For greater certainty, when the SLUPB is determining whether a proposed activity is in compliance with the Sahtu Land Use Plan, it shall be bound by these policies, conditions and prohibitions. If some other authority under subsection 46(1) of the MVRMA is setting terms and conditions on an activity, it too shall be bound by the policies, conditions and prohibitions of Parts 4.4.2 to 4.4.4.

appropriate authorities must act to prevent adverse impacts. Applicants for permits, licences and other authorizations in the Special Management Zone must *demonstrate* to the appropriate authorities, including, as the context requires, the SLUPB, the MVEIRB, the SL&WB, the SRRB, the DLC and authorized inspectors, that all aspects of their activities are consistent with the maintenance of the ecological and cultural integrity of the GBLW and, without limiting the generality of the foregoing, with the conditions and prohibitions set out in Parts 4.5.3, 4.5.4 and 4.6.2 below.

- c. The management of the Special Management Zone must be adapted to emerging knowledge (“adaptive management”). It must take account of and integrate the best available scientific and traditional knowledge. And it must be defensible in terms of both of these bodies of knowledge. The traditional knowledge used to meet this policy must be specific to the area that will be affected by the activity under consideration.

4.5.3 CONDITIONS

- a. Through the conditions they attach to permits, licences and other authorizations in the Special Management Zone, the SL&WB and other appropriate authorities shall ensure that each authorized party or the prospective assignee of that party:
 - i. establishes and maintains a site-specific research and monitoring program that is appropriate to the nature and scale of its proposed activity(ies) and adequate to demonstrate that all aspects of its activity(ies) are consistent with the maintenance of the ecological integrity of GBLW ecosystems;
 - ii. on termination or abandonment of its activity(ies), restores all areas affected by the activities to a condition consistent with the maintenance of the ecological integrity of GBLW ecosystems; and
 - iii. furnishes and maintains security with the Minister sufficient for achieving the purposes in (a)(i) and (ii) above, as well as for any ongoing measures that may be required after abandonment or closing.
- b. All uses of land or water and all deposits of waste in the Special Management Zone must be consistent with the maintenance of the ecological integrity of the GBLW. All uses of water and all deposits of waste in the Special Management Zone must be consistent with the maintenance of the ecological and cultural integrity of Conservation Zones within the GBLW.
- c. All infrastructure in the Special Management Zone must be built, monitored and managed so as to prevent and where necessary rectify any negative environmental effects that may result from the infrastructure’s degradation or aggradation of permafrost.
- d. Activities in the Special Management Zone must not result in or contribute significantly to the destruction or degradation of critical fish habitat, or of critical habitats or residences of other wildlife species.
- e. Activities in the Special Management Zone must not block the migration routes of migratory fish species or other migratory or semi-migratory wildlife species.
- f. The management of Special Management Zone fisheries should be proactive in nature and must be precautionary in approach. The managers of GBLW fisheries shall ensure that:

- i. all stocks fished for recreational or commercial purposes are maintained at sustainable levels consistent with identified fishery quality objectives. Licensed operators and harvesters shall be responsible for providing harvest statistics and biological information specified in their authorizations to the appropriate authorities;
 - ii. lake trout populations on GBL are not allowed to fall below levels that ensure that the catch of large trophy lake trout (fish in excess of 9kg) by any lodge remains stable at baseline levels. Baseline levels will be established for various stocks as determined by harvest studies in areas used by fishing lodges;
 - iii. arctic grayling populations in the Special Management Zone are maintained at levels that ensure the high quality of trophy fisheries. Baseline levels will be established for various stocks as determined by harvest studies in areas used by fishing lodges; and
 - iv. as a general rule, fish stocks in the Special Management Zone are managed conservatively in order to minimize the risk of degrading the quality of GBLW fisheries.
- g. Section 21.1.4 of the SLCA requires, as conditions of access to settlement lands, that there be no significant damage to these lands, no mischief committed on them, and no significant interference with participants' use and peaceful enjoyment of them. Government inspectors shall make every reasonable effort to ensure that all activities on settlement lands in the Special Management Zone comply with these requirements. In the event that the DLC or the Déline First Nation Government acquires the capability to inspect settlement lands, its inspectors shall do likewise.
- h. The *Mackenzie Valley Land Use Regulations*⁷¹ and the *Northwest Territories Archaeological Sites Regulations*⁷² protect historical and archaeological sites and burial grounds throughout the GBLW. Government inspectors shall make every reasonable effort to ensure that all activities in the Special Management Zone comply with both sets of regulations. In the event that the DLC or the Déline First Nation Government acquires the capability and authority to inspect settlement lands, its inspectors shall do likewise.
- i. Applicants for permits, licences or other authorizations in the Special Management Zone shall design and implement their activities in close consultation with the appropriate Déline authorities. Similarly, all bodies having authority under subsection 46(1) of the MVRMA (including government departments and agencies) shall consult Déline authorities prior to issuing licences, permits or other authorizations under existing legislation. For greater certainty, the Mining Recorders Office shall consult Déline authorities prior to issuing prospecting permits in the Special Management Zone, and the National Energy Board shall consult Déline authorities prior to issuing approvals under its authority in the Special Management Zone. Consultation shall emphasize the prevention of adverse impacts. Consultation shall in all cases be initiated early in the activities-planning and the application-review processes. Déline authorities must have a reasonable period to make referrals to the SLUPB, and the SLUPB must have a reasonable period to make determinations of compliance in accordance with section 47 of the MVRMA.

⁷¹ Section 12 of the *MVLURs*.

⁷² Sections 4 and 5 of the *NWTASRs*.

- j. Activities in the Special Management Zone should have the support of Déline authorities. Where appropriate, given the scale of activities or their potential impacts on cultural integrity, consultation should be characterized by joint planning on the part of proponents and the appropriate Déline authorities. Proponents must in any case demonstrate to the SLUPB that proposed activities are consistent with the existing and future social, cultural and economic well-being of Déline participants.

4.5.4 PROHIBITIONS

The following are prohibited:

- a. any bulk water removal⁷³ from the Special Management Zone; any bottled water removals shall have the approval of the Déline First Nation Government, when it comes into existence;
- b. any direct or indirect deposit of wastes into the surface or ground waters of the Special Management Zone which would have a negative impact on the ecological integrity of GBLW ecosystems;
- c. any direct or indirect deposit of wastes through surface or ground water into GBL, unless the concentration of wastes will be at or below natural background levels – or in the case of historically-polluted drainages, pre-development levels – when the waste stream enters GBL;
- d. activities which result in the introduction of non-native plant and wildlife species or subspecies, or of domestic animal species or subspecies into the Special Management Zone;
- e. activities which result in or contribute to the loss of any wildlife or plant species in the Special Management Zone;
- f. activities which result in or contribute to the loss of genetic diversity (the loss of genetically unique populations of aquatic or terrestrial plants or wildlife)⁷⁴;
- g. fish farming or aquaculture in the Special Management Zone;

⁷³ “Bulk water removal” means any water (including ice) transferred out of a river basin in any individual container greater than 40 litres in volume, or removal by any means that involves permanent out-of-basin transfer, whether it is by diversion (including pipelines, canal, tunnel, aqueduct or channel), tanker or other mechanism. Bulk water removal does not include “bottled water” in containers of 40 litres or less, which is regulated under environmental assessment processes and licensed under applicable legislation, and which otherwise meets the policies, conditions and prohibitions set out in Parts 4.5 and 4.6. In addition to the bottled water exemption, “bulk water removal” does not include removal of freshwater from a drainage basin for water required: to meet short-term health and safety needs (such as fire fighting); for human or animal consumption during travel and water needed to carry foodstuffs; for road construction and maintenance; and other local uses, in so far as these are consistent with the policies, conditions and prohibitions set out in Parts 4.5 and 4.6.

⁷⁴ Examples of unique forms (or “tribes”) of GBL lake trout that need to be preserved include the butterfly trout, insectivorous trout, piscivorous trout, deepwater humper-like trout and bulldog trout.

- h. activities in the lakebed of GBL, including any building or drilling in the lakebed and any trawling which results in the physical disturbance of the lakebed. Subject to the approval of the appropriate Déline authorities and to existing legislative requirements, including requirements in the *Fisheries Act* and the *Navigable Waters Protection Act*, the following are excepted from this prohibition:
- i. the installation of private, commercial or community wharves and docks;
 - ii. the installation of other similar inert structures within the boundaries of the community of Déline; and
 - iii. environmental monitoring equipment.

4.6 HERITAGE ZONES

This Management Plan provides for the establishment of a Heritage Zone at Neregah (Maps 3, 4 and 6). While part of the Special Management Zone, Neregah is important to the community of Déline primarily because of the heritage associated with it. The site is described in Part 4.6.1 below, and management conditions applicable to it are set out in Part 4.6.2.

4.6.1 NEREGAH (NORTH SHORE GBL HERITAGE ZONE)

Size, Location and Boundaries

- Neregah is illustrated on Map 6. It is located in the north-western part of the GBLW, and is approximately 4978 sq. km. in size. Its nearest point is approximately 125 km from Déline. Neregah's boundaries include the north shore of Dease Arm/Tucho.

Land Ownership

- Neregah consists of a mix of Crown and settlement lands. The DLC holds the surface title to most of the shoreline, while the Crown holds the surface title to the remainder of the shoreline and most of the interior, and all of the subsurface title.

Reasons for Designation as a Heritage Zone

a. Ecological Importance

- According to the elders of Déline, Neregah is a very important place for wildlife. It is very productive wildlife habitat, and it is important to the life cycles of a wide range of wildlife species. These species include barren ground caribou, moose, grizzly bear, musk-ox, fox species, beaver, marten, mink, muskrat, lynx, wolverine, arctic hare, wolf and waterfowl. Neregah is also very important for fish species, including lake trout, herring and whitefish.

- The Sahtu Heritage and Places Joint Working Group recommended designating Neregah as a Critical Wildlife Area for caribou and musk ox⁷⁵.
- There is a special harvesting area for fish near the western end of Neregah.

b. Cultural and Socio-Economic Importance

- The Sahtugot'ine have used Neregah for centuries. Its primary importance lies in its heritage values, and it is to protect these values that Neregah is designated as a Heritage Zone. Neregah preserves much of the physical heritage of the Sahtugot'ine: grave sites, traditional trails, landmarks, camping sites, cabins, natural harbours, other gathering places, other archaeological sites and the implements associated with them, including old tools and canoes, etc. It is also an important place for ancient contacts with Inuit venturing inland. It is one of the "natural museums" of the Sahtugot'ine.
- Neregah is important for the many stories associated with particular places and events, and for the cosmology, history, values and law of the Sahtugot'ine that these stories preserve. Neregah is thus one of the "natural libraries" and spiritual places of the Sahtugot'ine.
- Neregah is important for its educational value and the transmission of Sahtugot'ine culture from the elders to the younger generation. It continues to be used (though less often than more accessible places like Luchaniline, Tehkaicho Dé, Sahyoue and Edacho: below, Chapter 5) for educational trips involving Déline elders and high school children, and for the teaching of the Sahtugot'ine legends, history, values, law and land based skills. It remains one of the land based "schools" of the Sahtugot'ine.
- Neregah continues to be important to the Sahtugot'ine for hunting, fishing and trapping of the species listed above, and for gathering of a variety of plants and berries – for food and the preservation of the hunting, fishing, trapping and gathering way of life. It has several natural harbours, which allow safe moorage of boats, and several productive fisheries. It is important for summer hunting of ungulates.
- Neregah is now considered important for the potential development, on the part of the DLC and the DRRC, of commercial big game hunts for caribou, musk ox and grizzly bear, as well as for the DLC's investment in sports fishing lodges.
- The Sahtu Heritage and Places Joint Working Group recommended oral history and archaeological research in Neregah to document and protect extant heritage resources, and that the surface of documented sites be protected⁷⁶.

Non-Resource Development Potential

- oil and gas potential ranges from low on the east side to moderate to high on the west side

⁷⁵ Sahtu Heritage Places and Sites Joint Working Group, *Rakekée Gok'é Godi: Places We Take Care Of, Report of the Sahtu Heritage Places and Sites Joint Working Group* (December 1999) at 80 (hereafter cited as Joint Working Group (1999)).

⁷⁶ Joint Working Group (1999) at 80.

- mineral potential unknown.

4.6.2 MANAGEMENT CONDITIONS

- a. Neregah Heritage Zone shall be managed according to the policies, conditions and prohibitions applicable to the Special Management Zone as a whole.
- b. Heritage values are protected throughout the GBLW primarily by *Mackenzie Valley Land Use Regulations* and the *Northwest Territories Archaeological Sites Regulations*. Activities in Neregah Heritage Zone shall be subject to a higher level of inspection for compliance with these *Regulations*.

4.6.3 SOMBA K'E (PORT RADIUM)

The Minister responsible for national historic sites designated Somba K'e (Port Radium) as a national historic site in 1978, and the Sahtu Draft Preliminary Land Use Plan proposed that Somba K'e be established as a heritage zone. This Management Plan proposes a different approach:

- a. The Canada-Déline Uranium Table is working on a remediation plan for Somba K'e. The remediation of this site is between the Government of Canada and Déline authorities, and will be provided for outside of this Management Plan.
- b. The GBL Working Group – and particularly its Déline members – needs a better understanding of the contamination associated with Somba K'e and the safety of the public's visiting the site before it can make any recommendation about whether this site should be designated as a heritage zone.
- c. The potential designation of Somba K'e as a heritage zone should be re-visited in a future review of the Sahtu Land Use Plan.

4.7 CARIBOU PROTECTION MEASURES

Part 4.3.1 above discusses the economic importance of the Bluenose-East caribou herd to the Sahtu settlement area and to the community of Déline. That Part also discusses the importance of the GBLW to the Bluenose-West as well as the Bluenose-East caribou herds. In general terms, the area from Edaiila through the eastern and southern parts of the GBLW to Déline is important to the rut, fall migration, overwintering and spring migration of the Bluenose-East herd, while the area from Edaiila through the northern and western parts of the GBLW to the Luchaniline/Whitefish River area, is important to the rut, fall migration, overwintering and spring migration of the Bluenose-West herd.

Residents throughout the NWT and the western parts of Nunavut depend economically, socially and culturally on Bluenose-East and Bluenose-West caribou herds. These herds are vital to their existing and future well-being. Every reasonable effort should be made to maintain these herds at maximum sustainable levels. Their maintenance should be seen as the cost of doing business throughout their range.

Caribou protection measures are one of the tools that has been developed to protect caribou herds in the NWT. Originally introduced by DIAND in 1978 for the Beverly and Qamanirjuaq caribou herds, caribou protection measures attach to land use permits and have the legal force of conditions on these permits. They are designed to protect caribou and minimize permitted activities (primarily mineral exploration) when caribou are in an area, and to allow the permitted activities to continue when caribou have left the area.

The original caribou protection measures attempted to operationalize this objective by designating “Caribou Protection Areas”, primarily for caribou calving and post-calving grounds, and by adding further protections for the subsequent migrations and river crossings of a herd. The original caribou protection measures have been tested over several years. Various parties, most notably the Beverly and Qamanirjuaq Caribou Management Board, have now called for a re-evaluation of the original measures, for improved measures (if an assessment indicates that modifications to the original measures can provide meaningful protection), and for a more comprehensive system of protections for caribou herds throughout their life cycle and range⁷⁷.

The GBL Working Group agrees with this general approach. It is unable, at the time of writing this Management Plan, to recommend specific (improved) caribou protection measures, to be attached as conditions to permits, licences and authorizations in the Special Management Zone, for the fall and spring migrations of the Bluenose-East and Bluenose-West herds. A comprehensive approach is needed. The GBL Working Group believes that such an approach is best developed through updating the *Co-Management Plan for the Cape Bathurst, Bluenose-West and Bluenose-East Caribou Herds*⁷⁸.

4.7.1 RECOMMENDATIONS

- a. The responsible authorities⁷⁹ should, as a matter of priority, cooperate in updating the Co-Management Plan for the Cape Bathurst, Bluenose-West and Bluenose-East Caribou Herds. The updated Co-Management Plan should include a comprehensive system to protect the Bluenose-East and Bluenose-West herds during all stages of their life cycles. The update should be developed in consultation with representatives of the affected communities. In carrying out their update, the responsible authorities should consider the following:
 - i. the need to protect the traditional calving and post-calving grounds of the Bluenose-East herd in Nunavut, and the options of land use plan or legislative protection that would prohibit activities that could cause significant negative impacts to caribou or habitat;
 - ii. the need to protect both herds during other stages in their life cycles, including the rut and the fall and spring migrations (including river crossings);

⁷⁷ Beverly and Qamanirjuaq Caribou Management Board, *Protecting Calving Grounds, Post-Calving Areas and Other Important Habitats for Beverly and Qamanirjuaq Caribou* (September 2004).

⁷⁸ Government of the Northwest Territories, *Co-Management Plan for the Cape Bathurst, Bluenose-West and Bluenose-East Caribou Herds* (undated)

⁷⁹ Including the Department of Environment and Natural Resources (GNWT), the Department of the Environment (Government of Nunavut), the Gwich'in Renewable Resources Board, Nunavut Wildlife Management Board, the SRRB and the Wildlife Management Board (NWT).

- iii. the need for reliable monitoring information, and the option of “mobile caribou protection measures”, using satellite-collared caribou and grids such as that in place for the Sahtu Harvest Study, supplemented by other survey techniques;
 - iv. the need for adequate inspection for compliance with caribou protection measures and for enforcement;
 - v. the feasibility of a pilot project in the Sahtu settlement area and of incorporating improved caribou protection measures into the Sahtu Land Use Plan as conditions of land use permits.
- c. Assuming a positive answer to 4.7.1.(a)(v) above, improved caribou protection measures should, as soon as reasonably feasible, be incorporated into the Sahtu Land Use Plan as conditions of permits in the Special Management Zone.

4.8 AIR QUALITY

Part 4.3.4 above suggests: i) the need for better dissemination of information on ambient air quality in communities such as Déline; ii) consideration of whether ambient and point source air quality monitoring should be initiated in Déline; and iii) that there is need for air quality regulations in the Mackenzie Valley.

4.8.1 RECOMMENDATIONS

- a. ENR should ensure that communities such as Déline are regularly informed (in print and orally) regarding the findings of the GNWT’s ambient air quality monitoring program. The findings should include an analysis of seasonal levels and yearly trends, cumulative effects, and human health and environmental integrity implications.
- b. Within 1 to 5 years, ENR, the appropriate federal department(s) and the Déline First Nation Government (when established) should study the feasibility and advisability of establishing an air quality monitoring station in Déline. Further action on this recommendation must be integrated with the larger research and monitoring program described in Chapter 7 of this Management Plan.
- c. By the time of the first comprehensive review of the Sahtu Land Use Plan, ENR and the appropriate federal department(s) should collaborate in developing air quality regulations for the Mackenzie Valley. In so doing, they should consult (among others) the Déline First Nation Government. The regulations should help ensure the maintenance of the ecological and cultural integrity of watersheds such as the GBLW.
- d. In the interim, the SL&WB should recommend to those applying for permits, licences or other authorizations that they conduct all activities in the GBLW in conformity with the standards set out in the GNWT’s *Guidelines for Ambient Air Quality Standards in the Northwest Territories*⁸⁰, in the Alberta Energy and Utilities Board’s *Guide 60: Upstream Petroleum Industry*

⁸⁰ Resources, Wildlife and Economic Development, *Guidelines for Ambient Air Quality Standards in the Northwest Territories* (December 2002).

*Flaring, Incineration, and Venting*⁸¹, and in the Texas Commission on Environmental Quality's *Short-Term and Long-Term Effects Screening Levels*⁸².

4.9 "BELOW-THRESHOLD" WORK IN THE GBLW

The policies, conditions and prohibitions set out in Parts 4.5 and 4.6 above and in Parts 5.5 and 5.6 below apply only to "activities" as defined in Chapter 1 of this Management Plan. For any uses of land or water or deposits of waste in the GBLW that fall outside of this definition or that may be exempted by regulation from permit or licence requirements, the applicable regulatory authorities are urged to recommend strongly to land or water users that they carry out their work in a manner consistent with the maintenance of the ecological and cultural integrity of the GBLW, and in particular that they minimize impacts on the watershed and remove all equipment, other non-biodegradable objects and removable wastes that they bring into the watershed.

⁸¹ Alberta Energy and Utilities Board, *Guide 60: Alberta Air Quality Guidelines for the Upstream Oil & Gas Industry* (2003).

⁸² Texas Commission on Environmental Quality, *Short-Term and Long-Term Effects Screening Levels (ESL) List* (2003).

5. LAND USE: NEH KARILA K'ETS'EDI (CONSERVATION ZONES AND PROTECTED AREAS)

ELDERS' TEACHING Déline's elders have passed down a system of values, beliefs and codes of conduct to the present generation. Central to this worldview are several "prophecies" about the future. These prophecies are based on the visions of key elders in Déline's past, including Aya, Medzo, André and Bayha. Déline's current elders take these prophecies very seriously⁸³.

The nature of these prophecies needs to be understood: they set out not what *must* happen but what *may* happen in the future, if our society does not change its relationship with the natural world, just as the predictions of various coalitions of scientists now warn of future environmental degradation and the potential weakening of the globe's life support systems.

The Déline prophecies liken to world to a single living organism. They foresee – prior to the prophets ever having visited other parts of the world and prior to modern-day media accounts of environmental degradation – a growing assault on the natural world and the gradual encroachment of this assault on the Sahtu region. They foresee the degradation of the Great Lakes and southern Canadian water bodies, the gradual elimination of forests, the reduction or elimination of wildlife species and the spread of roads (likened to scars on the organism) through much of North America.

The elders relate the prophecies to their belief in a "universal law": to the connectedness of all things, the need to treat other beings with the utmost respect and the need for all three levels of government to work together. The gradual degradation of the GBLW can only be prevented if Sahtugot'ine and non-Sahtugot'ine alike to act with "one mind" to protect the integrity of the land.

All of the GBLW is important to the Sahtugot'ine. There are also, however, certain special places within the watershed on which wildlife and the Sahtugot'ine are particularly dependent. The elders use a special phrase for these places. They say that they are "*sore benegodi*": so real, of such fundamental value, so beautiful or so splendid that they are embedded in the mind; they cannot be dismissed; they are part of the Sahtugot'ine⁸⁴.

APPROACH This chapter provides for the establishment of several Neh Karila K'ets'Edi within the GBLW. Neh Karila K'ets'Edi are particularly important places within the watershed, that need a higher level of protection than that provided by the Special Management Zone. They are illustrated on Map 3. This chapter discusses basic concepts, and describes a vision of what Neh Karila K'ets'Edi should look like in 10 to 15 years time. It summarizes contextual considerations, and identifies goals and objectives to focus the establishment of Neh Karila K'ets'Edi. It sets out binding policies, conditions and prohibitions for the use and management of these places. It discusses each place in turn, and any special management considerations applicable to it. Finally, it recommends further actions regarding these places.

5.1 CONCEPTS

⁸³ This interpretation of the prophecies and its inclusion in the Management Plan is based on the elders' direction in the May 9/05 elders workshop in Déline, and particularly on the directions of Rosie Sewi, Leon Modeste, Raymond Taniton and Charlie Neyelle.

⁸⁴ Charlie Neyelle, personal communication (October 21, 2004).

Neh Karila K'ets'Edi Neh Karila K'ets'Edi is a Slavey term which means "lands set aside: we're protecting them". Neh Karila K'ets'Edi include two sorts of special protection area:

- a. **Conservation Zones** Conservation Zones are areas that have a combination of important cultural, historic, traditional and/or ecological values that need a higher level of protection than that provided by the Special Management Zone described in Chapter 4 of this Management Plan. Conservation Zones are identified below. They are to be protected pursuant to the policies, conditions and prohibitions set out in Parts 5.5 and 5.6 of this Management Plan and under the authority of the Sahtu Land Use Plan.
- b. **Protected Areas** Protected Areas are analogous to Conservation Zones, but they have legislative protection or they are currently being advanced through the NWT Protected Areas Strategy (the "PAS") for future legislative protection. "Protected Areas" is used generically in this Management Plan, so as to include national parks and national historic sites protected by regulations under the *Canada National Parks Act*, as well as the range of "conservation areas" as that term is defined in section 2.1.1 of the SLCA.

The implications of the distinction between Conservation Zones and Protected Areas are as follows:

- i. Conservation Zones will, at the least, be protected during the five-year term of the Sahtu Land Use Plan. Their protection could be an interim measure, pending some further investigation, or "semi-permanent" and renewed on the renewal of the Sahtu Land Use Plan (generally every five years). Conservation Zones are thus a flexible tool that can be adapted to a variety of purposes.
- ii. Conservation Zones could be advanced through the process established in the PAS and receive more permanent legislative protection as Protected Areas.
- iii. Protected Areas are protected for the longer term and they are generally managed according to co-operative management agreements negotiated between one or more aboriginal authorities and the legislatively-mandated government management agency.
- iv. The National Historic Site at Sahyoue/Edacho is a candidate Protected Area within the PAS. But if legislative protection for Sahyoue/Edacho remains uncertain at time the SLUPB submits the Sahtu Land Use Plan for approval, this Site should be protected under the Sahtu Land Use Plan as a Conservation Zone. For this reason and because it includes at least some settlement lands, Sahyoue/Edacho is included in the discussion below.

5.2 VISION

In 10 to 15 years, the system of Neh Karila K'ets'Edi in the GBLW should have the following characteristics:

- a. The ecological and cultural integrity of these very special places is unimpaired. In the language of the SLCA, Neh Karila K'ets'Edi:

- i. protect and conserve the wildlife and environment of the settlement area for present and future generations⁸⁵; and
 - ii. protect and promote the existing and future well-being of the residents and communities of the settlement area having regard to the interests of all Canadians⁸⁶.
- b. Neh Karila K'ets'Edi are afforded the high level of protection mandated by their importance to Déline, other Sahtu communities and Canadian society as a whole. They are maintained in as natural a state as possible.
- c. Activities outside of Neh Karila K'ets'Edi are also consistent with the ecological and cultural integrity of these places.
- d. Déline residents and organizations are fully involved in the planning and operational management of Neh Karila K'ets'Edi.
- e. Participants exercise their harvesting rights in Neh Karila K'ets'Edi as provided for in the SLCA.

5.3 CONTEXT

5.3.1 IMPORTANCE

Neh Karila K'ets'Edi are very important to the residents and communities of the Sahtu settlement area, and indeed to all to Canadians. They are important contributors to wildlife and ecological systems, to socio-economic sustainability and to the existing and future social, cultural and economic well-being of the Sahtugot'ine.

The Sahtugot'ine have used Neh Karila K'ets'Edi intensely for centuries. They know these places intimately. Many elders and many middle-aged Sahtugot'ine were born, raised and instructed by their elders in these places, and Déline residents return to them regularly for the reasons set out immediately below and in Part 5.6. But like much of the GBLW, the oral history and archaeology of Neh Karila K'ets'Edi remain to be formally researched and documented. The Sahtu Heritage Places and Sites Joint Working Group thus recommended in 1999 that oral history and archaeological research be undertaken to document and protect the extant heritage resources of many Neh Karila K'ets'Edi, that some of the Neh Karila K'ets'Edi identified below be designated as Critical Wildlife Areas, and that they be given special consideration in the land use planning process⁸⁷. The recommended research has not yet been undertaken (and it is again recommended below, under Chapter 7 of this Management Plan). The discussion in this Chapter of the Management Plan is thus based on existing publications⁸⁸ and the expert opinion of Déline

⁸⁵ SLCA, s. 1.1.1(h).

⁸⁶ SLCA, s. 25.2.4(a).

⁸⁷ Joint Working Group (1999) at 76-91. The Joint Working Group was established pursuant to section 26.4.1 of the SLCA. It made the above recommendations for Edaiila (Caribou Point), Luchaniline (Whitefish River), Neregah (North Shore of GBL), Somba (Port Radium), T'eecho cho deh t'a tiaa (Fort Confidence), Tunlj (Johnny Hoe Fishery) and Yamoria Eht'ene (several smaller sites on GBL associated with Yamoria).

⁸⁸ Including Joint Working Group (1999), and Beckel, D.K., ed., *International Biological Program Ecological Sites in Sub-Arctic Canada*, Panel 10 (Lethbridge: University of Lethbridge, 1975),

elders, professional biologists and geologists, and the collective judgment (and consensus) of the GBL Working Group.

- a. **Heritage and Cultural Identity:** Neh Karila K'ets'Edi are important because of their contribution to the heritage and cultural identity of the Sahtugot'ine:
 - i. Neh Karila K'ets'Edi are the places in the GBLW that most show the physical evidence of Sahtugot'ine ancestry. That "evidence of our ancestors" is all around GBL, but it is *most* present in these places. Neh Karila K'ets'Edi are the natural "museums" of the Sahtugot'ine culture.
 - ii. Detailed research into Edacho/Sahyoue⁸⁹ and the expert opinion of Déline elders establish that Neh Karila K'ets'Edi are also the places richest in the stories of the Sahtugot'ine. It is in these places and the stories associated with them that the cosmology, history, values and law of the Sahtugot'ine are contained, and it is through them that the cosmology, history, values and law of the Sahtugot'ine are transmitted to the younger generation. Thus Neh Karila K'ets'Edi are now increasingly seen as the natural "libraries" and "schools" of the Sahtugot'ine culture.
 - iii. Neh Karila K'ets'Edi are sacred places, places to which Sahtugot'ine go to renew themselves, and places that help define what it means to be Sahtugot'ine. They are important to Sahtugot'ine and other Canadians precisely because most still remain in a natural state. Their value lies not only in their contribution of various resources, but in their natural state.
 - iv. With the establishment of Sahyoue/Edacho as a national historic site, Neh Karila K'ets'Edi are increasingly seen as an important part of the heritage of all Canadians.
- b. **Wildlife and Ecological Systems:** Neh Karila K'ets'Edi are important because of their contribution to the maintenance of wildlife populations and habitat:
 - i. Neh Karila K'ets'Edi contain important wildlife habitat.
 - ii. They play a key role in the maintenance of regional wildlife populations.
 - iii. They provide critical ecological services that support and sustain life.
- c. **Socio-Economic Importance:** Neh Karila K'ets'Edi contribute significantly to the socio-economic well-being or sustainability of the community of Déline:
 - i. These places have been used for centuries for the harvesting of wildlife (fish, mammals, birds), medicinal plants, berries and wood. They continue to be used by Déline and other Sahtu communities for these purposes today. They are important

hereafter cited as IBP (1975). The following detailed research into the stories associated with Edacho/Sahyoue is also suggestive of the importance of other Neh Karila K'ets'Edi: Christopher C. Hanks. *Narrative and Landscape: Grizzly Bear Mountain and Scented Grass Hills as Repositories of Sahtu Dene Culture* (Ottawa: Historic Sites and Monuments Board of Canada Agenda Paper, 1996-61), hereafter cited as Hanks (1996).

⁸⁹ Hanks (1996).

sources of food, and they are an important part of the economy and harvesting way of life of the Sahtugot'ine.

- ii. Looking to the future, some Neh Karila K'ets'Edi are also now seen as essential to the development of tourism and the renewable resource economy in Déline District.
- d. **Ecoregion Representation:** Neh Karila K'ets'Edi contribute to ecoregion representation in the NWT and to the preservation of the natural heritage of Canada.

5.3.2 LAND OWNERSHIP

Most Neh Karila K'ets'Edi in the GBLW contain substantial areas of settlement land (Maps 3 and 4). Most of these settlement lands are SLCA section 19.1.2(a) lands ("surface" title only), but the Luchaniline (Whitefish River) Conservation Zone also includes a relatively small parcel of SLCA section 19.1.2(b) lands ("surface and sub-surface" title) named "M25". Any establishment of Neh Karila K'ets'Edi on Déline's settlement lands will require the clear agreement of the DLC.

5.3.3 THIRD PARTY INTERESTS

Representatives of Déline have made it clear that they are opposed to mineral exploration and development in Neh Karila K'ets'Edi. They want these places protected and preserved in their natural state, unpolluted and undisturbed. As noted in Part 4.3.3 above, however, in January 2004 and January 2005, the Director of Mineral Resources of the Natural Resources and Environment Branch of DIAND issued prospecting permits along the north and north-eastern shores of GBL, within the eastern and southern parts of the watershed, and in the western parts of the watershed in the vicinity of the Whitefish River (Map 5). There are thus now prospecting permits in parts of the Luchaniline and Tehkaicho Dé Conservation Zones as well as in most of the Edaiila Conservation Zone.

The prospecting permits have a period of 3 years. They give the permit holder the exclusive right to prospect for minerals, to locate mineral claims and to record mineral claims within the boundaries of the permit, provided that the permit holder meets work requirements set out in the *Canada Mining Regulations*⁹⁰. With the recording of a claim, the claim holder has the exclusive right, subject to various regulations in force at the time, to prospect for minerals and develop any mine within the boundaries of the recorded claim⁹¹.

The prospecting permits complicate the establishment and management of Conservation Zones. Conservation Zones and Protected Areas typically prohibit mineral exploration, development and transportation. If there are third party mineral rights within these sorts of area on their establishment, the area is made subject to these mineral rights or (more rarely) the mineral rights are bought out. When such areas are established subject to pre-existing mineral rights, these rights are usually in the form of registered claims or mineral leases. Such rights are limited in their geographic scope and potential impacts. In the case of prospecting permits, however, the right to prospect for minerals, locate mineral claims and record mineral claims extends anywhere within the area of the prospecting permit⁹². These are large areas, and the affected Conservation

⁹⁰ *Canada Mining Regulations*, ss. 33 & 34.

⁹¹ *Canada Mining Regulations*, s. 27.

⁹² *Canada Mining Regulations*, ss. 29(10), 33(2), 34 and 27(1).

Zones are thus potentially subject to extensive mineral activity. On the other hand, it should be born in mind that only a small percentage of registered claims ever result in the establishment of a mine and the transportation of minerals.

Caribou protection measures are discussed above (Part 4.7). Where mineral activity has already been authorized, such measures have been brought into force in the past as conditions of land use permits under the *Territorial Lands Act*. This Management Plan has already recommended the updating the Co-Management Plan for the Cape Bathurst, Bluenose-West and Bluenose-East Caribou Herds, including the development and incorporation of improved caribou protection measures into the Sahtu Land Use Plan. Such measures could be put into force in Conservation Zones under the authority of the *Mackenzie Valley Land Use Regulations*⁹³. Caribou protection measures are thus recommended below (Part 5.6.5) for those Conservation Zones subject to prospecting permits.

5.4 GOALS AND OBJECTIVES

- a. Protect places of particular natural, cultural and/or spiritual value within the GBLW through legally-effective means (the Sahtu Land Use Plan or legislative designation pursuant to the PAS).
- b. Maintain or enhance the ecological integrity of Neh Karila K'ets'Edi and of the GBLW as whole:
 - i. contribute to the viability of resident and wide-ranging species such as caribou, bears, wolves, wolverine and migratory birds through the maintenance of important and critical habitats and their associated life cycles in Neh Karila K'ets'Edi;
 - ii. monitor and maintain water quality as an indicator of the ecological integrity of Neh Karila K'ets'Edi and the GBLW as a whole;
 - iii. better understand the complex relationship between development and ecological integrity and change: develop reference sites within Neh Karila K'ets'Edi as benchmarks to monitor, assess and mitigate the impacts (including cumulative impacts) of activities elsewhere in the GBLW.
- c. Maintain or enhance the cultural integrity of Neh Karila K'ets'Edi and of the GBLW as whole:
 - i. support Déline initiatives to use Neh Karila K'ets'Edi as teaching and learning places, including places for the transmission of Sahtugot'ine culture from the elders to the younger generations and for inter-cultural teaching and learning;
 - ii. support Déline initiatives to use Neh Karila K'ets'Edi for the exercise of hunting, fishing and trapping rights, and the development of Déline's renewable resource economy.
- e. Contribute to the representation of habitats and ecosystem in the GBLW:
 - i. Ensure that all habitat and ecosystem types are represented in the network of Neh Karila K'ets'Edi established in the GBLW.

⁹³ Section 26(1).

5.5 POLICIES, CONDITIONS AND PROHIBITIONS

5.5.1 NATURE OF POLICIES, CONDITIONS AND PROHIBITIONS

Several things should be said by way of clarification of the policies, conditions and prohibitions in Part 5.5 and 5.6:

- a. The appropriate authorities shall interpret and apply these policies, conditions and prohibitions as mandatory requirements, within sections 46 and 47 of the MVRMA, applicable to all activities in Conservation Zones authorized subsequent to the approval of the Sahtu Land Use Plan.
- b. For permits, licences or other authorizations in Conservation Zones issued prior to the approval of the Sahtu Land Use Plan, including those within pre-existing prospecting permits, the appropriate authorities shall apply the policies, conditions and prohibitions in Part 5.5 as operational standards applicable to any renewal or substantial amendment of such permits, licences or other authorizations.
- c. They are in addition to existing legislative and regulatory requirements, and they are to be interpreted so as not to reduce or diminish existing legislative or regulatory requirements. Moreover, all references to legislation or other standards should be interpreted to mean legislation and standards as amended from time to time.
- d. They apply within Conservation Zones but not within Protected Areas. While Conservation Zones are managed pursuant to the Sahtu Land Use Plan – including the policies, conditions that follow – and legislation of general application, Protected Areas are managed pursuant to the specific legislation by which each Protected Area is established and governed.
- e. They apply on both Crown and settlement lands, to the extent that both types of land are incorporated within Conservation Zones.
- f. They vary in the generality of the tests they require, from the more general (the policies) to the more specific (conditions and prohibitions).
- g. They apply to activities as defined in Chapter 1 of this Management Plan.
- h. They are to be used by the SLUPB in determining whether a proposed activity is in compliance with a land use plan, and by other appropriate authorities, including the SL&WB, in setting terms and conditions on permits, licences or other authorizations⁹⁴.
- f. They are subject to the resource management regime and to the system of rights and responsibilities set out in the SLCA and the DSGA, to the extent that that Agreement applies to the Conservation Zones. They do not diminish in any way participants' rights as

⁹⁴ For greater certainty, when the SLUPB is determining whether a proposed activity is in compliance with the Sahtu Land Use Plan, it shall be bound by these policies, conditions and prohibitions. If some other authority under subsection 46(1) of the MVRMA is setting terms and conditions on an activity, it too shall be bound by the policies, conditions and prohibitions of Parts 5.5. and 5.6.

recognized in the SLCA (including harvesting rights and the right to travel and establish and maintain hunting, trapping and fishing camps) or the DSGA.

- g. The policies, conditions and prohibitions in Parts 5.5 are to be read *in conjunction with* the further management conditions and prohibitions applicable to particular Conservation Zones set out in Part 5.6. The conditions and prohibitions in Part 5.6 tailor the conditions and prohibitions of Part 5.5 to particular Conservation Zones. They complement and sometimes vary the conditions and prohibitions in Part 5.5.

5.5.2 POLICIES

- a. The Conservation Zones identified in this Management Plan are part of the natural and cultural heritage of the Sahtugot'ine, other Canadians, and indeed the world. They must be protected for generations to come. The conservation of renewable resources and the maintenance of the ecological and cultural integrity of Conservation Zones must be the first priority in all management decisions affecting them. All activities in Conservation Zones must be consistent with the maintenance of their ecological and cultural integrity, and indeed the ecological and cultural integrity of the GBLW as a whole.
- b. Wherever possible, proponents and the appropriate authorities must act to prevent adverse impacts. Applicants for permits, licences and other authorizations in Conservation Zones must *demonstrate* to the appropriate authorities, including, as the context requires, the SLUPB, the MVEIRB, the SL&WB, the SRRB, the DLC and all authorized inspectors, that all aspects of their activities are consistent with the maintenance of the ecological and cultural integrity of the Conservation Zone in question and, without limiting the generality of the foregoing, with the conditions and prohibitions set out in Parts 5.5.3 and 5.5.4 below.
- c. The management of Conservation Zones must be adapted to emerging knowledge. It must take account of and integrate the best available scientific and traditional knowledge. And it must be defensible in terms of both of these bodies of knowledge. The traditional knowledge used to meet this policy must be specific to the area that will be affected by the activity under consideration.

5.5.3 CONDITIONS

- a. Through the conditions they attach to permits, licences and other authorizations in Conservation Zones, the SL&WB and other appropriate authorities shall ensure that each authorized party or the prospective assignee of that party:
 - i. establishes and maintains a site-specific research and monitoring program that is appropriate to the nature and scale of its proposed activity(ies) and adequate to demonstrate that all aspects of its activity(ies) are consistent with the maintenance of the ecological integrity of Conservation Zone ecosystems;
 - ii. on termination or abandonment of its activity(ies), restores all areas affected by the activities to a condition consistent with the maintenance of the ecological integrity of Conservation Zone ecosystems; and

- iii. furnishes and maintains security with the Minister sufficient for achieving the purposes in (a)(i) and (ii) above, as well as for any ongoing measures that may be required after abandonment or closing.
- b. All deposits of waste and all uses of land and water in Conservation Zones, including access on and across Conservation Zones, must be consistent with the maintenance of the ecological integrity of the Conservation Zone in question. As noted above (4.5.3 (b)), all uses of water and all deposits of waste in the Special Management Zone must be consistent with the maintenance of the ecological integrity of Conservation Zones within the GBLW.
- c. All infrastructure in Conservation Zones must be built, monitored and managed so as to prevent and where necessary rectify any negative environmental effects that may result from the infrastructure's degradation or aggradation of permafrost.
- d. Activities in Conservation Zones must not result in or contribute significantly to the destruction or degradation of critical fish habitat, or of critical habitats or residences of other wildlife species.
- e. Activities in Conservation Zones must not block or significantly alter the migration routes of migratory fish species or other migratory or semi-migratory wildlife species.
- f. The management of Conservation Zone fisheries should be proactive in nature and must be precautionary in approach. Fish stocks in Conservation Zones must be managed conservatively in order to minimize the risk of degrading the quality of GBLW fisheries.
- g. Section 21.1.4 of the SLCA requires, as conditions of access to settlement lands, that there be no significant damage to these lands, no mischief committed on them, and no significant interference with participants' use and peaceful enjoyment of them. Government inspectors shall make every reasonable effort to ensure that all activities on settlement lands in Conservation Zones comply with these requirements. In the event that the DLC or the Déline First Nation Government acquires the capacity to inspect settlement lands, its inspectors shall do likewise.
- h. The *Mackenzie Valley Land Use Regulations*⁹⁵ and the *Northwest Territories Archaeological Sites Regulations*⁹⁶ protect historical and archaeological sites and burial grounds throughout the GBLW. Government inspectors shall make every reasonable effort to ensure that all activities in Conservation Zones comply with both sets of regulations. In the event that the DLC or the Déline First Nation Government acquires the capacity and authority to inspect settlement lands, its inspectors shall do likewise.
- i. Applicant for permits, licences or other authorizations in Conservation Zones shall design and implement their activities in close consultation with the appropriate Déline authorities. Similarly, all bodies having authority under subsection 46(1) of the MVRMA (including government departments and agencies) shall consult Déline authorities prior to issuing licences, permits or other authorities under existing legislation. For greater certainty, the Mining Recorders Office shall consult Déline authorities prior to issuing prospecting permits in Conservation Zones, and the National Energy Board shall consult Déline authorities prior to issuing approvals under its authority in Conservation Zones. Consultation shall

⁹⁵ Section 12 of the *MVLURs*.

⁹⁶ Sections 4 and 5 of the *NWTASRs*.

emphasize the prevention of adverse impacts. Consultation shall in all cases be initiated early in the activities-planning and the application-review processes. Déline authorities must have a reasonable period to make referrals to the SLUPB, and the SLUPB must have a reasonable period to make determinations of compliance in accordance with section 47 of the MVRMA.

- h. Activities in Conservation Zones should have the support of Déline authorities. Where appropriate, given the scale of activities or their potential impacts on cultural integrity, consultation should be characterized by joint planning on the part of proponents and the appropriate Déline authorities. Proponents must in any case demonstrate to the SLUPB that proposed activities are consistent with the existing and future social, cultural and economic well-being of Déline participants.

5.5.4 PROHIBITIONS

- a. The following are prohibited in Conservation Zones:
 - i. any bulk water removals; any bottled water removals shall have the approval of the Déline First Nation Government, when it comes into existence;
 - ii. any direct or indirect deposit of wastes into the surface or ground waters of Conservation Zones which would have a negative impact on the ecological integrity of Conservation Zone ecosystems;
 - iii. any direct or indirect deposit of wastes through surface or ground water into GBL, unless the concentration of wastes will be at or below natural background levels – or in the case of historically-polluted drainages, pre-development levels – when the waste stream enters GBL;
 - iv. activities which result in the introduction of non-native plant and wildlife species or subspecies, or of domestic animal species or subspecies into Conservation Zones;
 - v. activities which result in or contribute to the loss of any wildlife or plant species in the GBLW;
 - vi. activities which result in or contribute to the loss of genetic diversity (the loss of genetically unique populations of aquatic or terrestrial plants or wildlife) in the GBLW; and
 - vii. fish farming or aquaculture.
- b. Unless already authorized in a Conservation Zone prior to the approval of the Sahtu Land Use Plan, the following are prohibited in Conservation Zones:
 - i. the issuance of prospecting permits, the locating and recording of mineral claims, and mineral exploration, development and transportation; and
 - ii. oil and gas exploration, development and transportation.

- c. For greater certainty, where prospecting permits were issued in Conservation Zones prior to the approval of the Sahtu Land Use Plan, the appropriate authorities shall implement the following conditions and prohibitions:
- i. licences, permits or other authorizations issued subsequent to the approval of the Sahtu Land Use Plan shall be subject to the policies, conditions and prohibitions in Parts 5.5 and 5.6;
 - ii. on the expiry of these prospecting permits, no further prospecting permits shall be issued; and
 - iii. on the expiry or relinquishment of mineral rights within the boundaries of these prospecting permits, the prohibitions in Part 5.5 shall apply.

5.6 GBLW NEH KARILA K'ETS'EDI⁹⁷

The following Conservation Zones and Protected Areas shall be established in the GBLW⁹⁸:

- i. Luchaniline (Whitefish River) Conservation Zone
- ii. Tehkaicho Dé (Johnny Hoe River) Conservation Zone
- iii. Du K'ets' Edi (Sentinel Islands) Conservation Zone
- iv. Edaiila, including T'echo cho deh t'a tlaaa (Caribou Point, including Fort Confidence) Conservation Zone and Protected Area; and
- v. Sahyoue and Edacho (Grizzly Bear Mountain and Scented Grass Hills) Protected Area

Each of these areas (including the reasons for the each area's importance) is described below. Subject to 5.6.1(b) below, they shall be protected by the general policies, conditions and prohibitions set out in Part 5.5. above, as well as by any further management conditions and prohibitions set out for each of the areas below.

As with Part 5.3 above, the discussion in this Part of the Management Plan is based on existing publications⁹⁹ and the expert opinion of Déline elders¹⁰⁰, professional biologists and geologists, and the collective judgment (and consensus) of the GBL Working Group.

5.6.1 LUCHANILINE (WHITEFISH RIVER) CONSERVATION ZONE

Size, Location and Boundaries

- Luchaniline is illustrated on Map 7. It is located in the north-western part of the GBLW, and is approximately 1500 sq. km. in size. Its nearest point is approximately 40 km. from Déline. Its boundaries include all of the Whitefish River and the downstream reaches of the River's

⁹⁷ Throughout Part 5.6, "surface title" is used as a short form for the sort of title described in paragraph 19.2.1 (a) of the SLCA. In contrast, "subsurface title" is used as a short form for the mines and mineral rights, or the remainder added by paragraph 19.2.1 (b) of the SLCA.

⁹⁹ Including Joint Working Group (1999), IBP (1975), and Hanks (1996).

¹⁰⁰ Including the October 21-24/04 Elders' Conservation Zones Workshop, the January 4-7/05 workshop and the May 9/05 workshop, all in Déline.

watershed and extend 10 km on either side of the river. Most of Luchaniline is part of the Great Bear Lake Plain Ecoregion, while a small portion of the Conservation Zone is in the Norman Range Ecoregion.

Land Ownership

- Most of Luchaniline consists of settlement lands, the surface title to which is held by the DLC. The DLC also holds the subsurface title to a parcel of land near the mid point of Luchaniline (Parcel M25), while the Crown holds the subsurface title to the remainder of Luchaniline and the surface title to relatively small portions of Luchaniline.

Reasons for Protection

1. Ecological Importance

- According to the elders of Déline, Luchaniline is a very important place for wildlife. It is very productive wildlife habitat, and it is important to the life cycles of a wide range of wildlife species. These species include beaver, muskrat, mink, otter, black and brown bear, moose, whitefish, jackfish, loche, grayling, sucker and geese, waterfowl and other migratory bird species. The elders assert that it is important that wildlife using Luchaniline be treated with respect, and they not be unnecessarily disturbed.
- Luchaniline is widely recognized as a critical whitefish spawning area. Whitefish are found throughout the length of the river. The Sahtu Heritage and Places Joint Working Group recommended designating Luchaniline as a Critical Wildlife Area to protect the whitefish spawning grounds, and that the area be given special consideration in the land use planning process¹⁰¹. There is also a special harvesting area for fish at the mouth of the Whitefish River, where the River flows into the western reaches of Smith Arm.

2. Cultural and Socio-Economic Importance:

- The Sahtugot'ine have used Luchaniline for centuries. It is important because it preserves much of the physical heritage of the Sahtugot'ine: grave sites, traditional trails, camping sites, cabins, river crossings, other gathering places, other archaeological sites and the implements associated with them. It is one of the "natural museums" of the Sahtugot'ine.
- Luchaniline is important for the many stories associated with specific places and events, and for the cosmology, history, values and law of the Sahtugot'ine that these stories preserve. It is one of the "natural libraries" of the Sahtugot'ine.
- Luchaniline is important for its educational value and the transmission of Sahtugot'ine culture from the elders to the younger generation. It continues to be used for educational trips involving Déline elders and school-aged children in the spring and summer, and for the teaching of the Sahtugot'ine legends, history, values, law and land based skills. It is one of the "natural schools" of the Sahtugot'ine.

¹⁰¹ Joint Working Group (1999) at 78.

- Luchaniline continues to be used as a place of spiritual renewal – a place where people can better “know who we are”.
- Luchaniline continues to be very important for hunting, fishing, trapping and the gathering of a variety of plants and berries – for food and the preservation of the hunting, fishing, trapping and gathering way of life.
- Luchaniline is important for other potential socio-economic uses, including potential local commercial renewable resource harvesting.
- The Sahtu Heritage and Places Joint Working Group recommended oral history and archaeological research to document and protect extant heritage resources, and that the surface of documented sites be protected¹⁰².

Non-Resource Development Potential

- moderate oil and gas potential
- low mineral potential

FURTHER MANAGEMENT CONDITIONS AND PROHIBITIONS

- a. Commercial timber harvesting or gravel extraction activities in Luchaniline shall be regulated to ensure the ecological integrity of Luchaniline and surrounding areas, with particular attention being paid to the Whitefish River, its riparian zone and GBL.
- b. Activities in parcel M25 (Maps 4 and 5) shall be subject to the policies, conditions and prohibitions in Part 5.5.2 to 5.5.4(a) only. Any further restrictions on these activities shall be as determined solely by the DLC.

5.6.2 TEHKAICHO DÉ (JOHNNY HOE RIVER) CONSERVATION ZONE

Size, Location and Boundaries

- Tehkaicho Dé is illustrated on Map 8. It is located in the south-western part of the GBLW, and is approximately 4173 sq. km. in size. Its nearest point is approximately 100 km. from Déline. Its boundaries include Lac Ste Therese, Birch Lake and a significant part of the Johnny Hoe River watershed. Tehkaicho Dé is part of the Great Bear Lake Plain and Keller Lake Plain Ecoregions, with a small fraction also in the Norman Range Ecoregion.

Land Ownership

- The northern reaches of Tehkaicho Dé consist of settlement lands, the surface title to which is held by the DLC, while the Crown holds the subsurface title and the majority of the surface title of Tehkaicho Dé.

¹⁰² Joint Working Group (1999) at 78.

Reasons for Protection

1. Ecological Importance

- According to the elders of Déline, Tehkaicho Dé is a very important place for wildlife. It contains very productive wildlife habitat, and it is important to the life cycles of a wide range of wildlife species. These species include beaver, muskrat, caribou, moose, black bear, whitefish, broad whitefish, geese, waterfowl and other migratory bird species.
- Tehkaicho Dé is considered particularly sensitive when the Bluenose-East herd moves through it and crosses several rivers during its the late fall/early winter migration to its overwintering grounds.
- Tehkaicho Dé is widely recognized as a critical whitefish spawning area. Whitefish are found throughout the length of the river. The Sahtu Heritage and Places Joint Working Group recommended designating Tehkaicho Dé as a Critical Wildlife Area for fish and moose, and that the area be given special consideration in the land use planning process¹⁰³. There is also a special harvesting area at the mouth of the Johnny Hoe River.

2. Cultural and Socio-Economic Importance

- The elders believe Tehkaicho Dé to be one of the most important places used by their ancestors around GBL and one of the most important for their ancestors' survival. It is important for its preservation of much of the physical heritage of the Sahtugot'ine: grave sites, and historic portage across the neck of Sahyoue and other traditional trails, hundreds of camping sites, cabins, gathering places, other archaeological sites and the implements associated with them. Like Luchaniline, it is one of the "natural museums" of the Sahtugot'ine.
- Tehkaicho Dé is important for the many stories associated with places and events within it, and for the cosmology, history, values and law of the Sahtugot'ine that these stories preserve. It is another of the "natural libraries" of the Sahtugot'ine.
- Tehkaicho Dé is important for its educational value and the transmission of Sahtugot'ine culture from the elders to the younger generation. It continues to be used for educational trips involving Déline elders and high school children, and for the teaching of the Sahtugot'ine legends, history, values, law and land based skills. It is one of the land based "schools" of the Sahtugot'ine.
- The elders of Déline consider Tehkaicho Dé a very powerful or spiritually deep area. It continues to be used as a place of spiritual renewal by Déline residents.
- Although fish taken in Lac Ste Therese have now been demonstrated to be contaminated by natural sources of mercury, Tehkaicho Dé continues to be very important for hunting, fishing, trapping and the gathering of a variety of plants and berries – for food and the preservation of the hunting, fishing, trapping and gathering way of life.

¹⁰³ Joint Working Group (1999) at 88.

- The Sahtu Heritage and Places Joint Working Group recommended oral history and archaeological research to document and protect extant heritage resources, and that the surface of documented sites be protected¹⁰⁴.

Non-Resource Development Potential

- moderate oil and gas potential
- low mineral potential

5.6.3 DU K'ETS'EDI (SENTINEL ISLANDS) CONSERVATION ZONE

Size, Location and Boundaries

- Du K'ets'Edi ("the islands taking care of themselves") is illustrated on Map 9. The islands comprising this Conservation Zone are located at strategic points all around GBLW, and total approximately 528 sq. km. in size. They lie at various distances from Déline. The boundaries of the Conservation Zone include all of each of the islands. Most Du K'ets'Edi lie within the Great Bear Lake Plain Ecoregion, while a small number are within the Grandin Plain Ecoregion.

Land Ownership

- The DLC holds the surface title to 18 parcels of land within Du K'ets'Edi. The proportion of surface title held by the Crown is unknown. The Crown holds all subsurface title.

Reasons for Protection

1. Ecological Importance

- The ecological importance of the islands comprising Du K'ets'Edi lies in their location in GBL. These islands are to be protected in a natural, undeveloped state primarily to protect the water quality of GBL.

2. Cultural and Socio-Economic Importance

- The Sahtugot'ine have used Du K'ets'Edi for as long as they have used GBL. They have used these islands primarily for safety purposes when traveling on GBL (safety from GBL storms, docking and temporary use year round, but particularly during the open water season).
- The Sahtugot'ine consider many Du K'ets'Edi to have mythical significance, and to have been formed when mythical beings turned into islands when crossing GBL. Du K'ets'Edi thus have many stories associated with them, some like the Greek myths associated with Medusa turning other mythical creatures into stone. Some Du K'ets'Edi require special acts of respect

¹⁰⁴ Joint Working Group (1999) at 88.

when passing them and some are considered still to have supernatural powers associated with them.

- Du K'ets'Edi are also important for their educational value and the transmission of Sahtugot'ine culture from the elders to the younger generation. They are places where the telling of some of the fundamental creation stories of the Sahtugot'ine is appropriate.

Non-Renewable Resource Development Potential

- oil and gas potential unknown.
- mineral potential unknown.

FURTHER MANAGEMENT CONDITIONS AND PROHIBITIONS

- a. Participants and others shall use Du K'ets'Edi for temporary purposes only, including stopping and camping for safety reasons, research and monitoring (including the installation of research and monitoring equipment) and youth educational camps. Emergency shelters and youth educational shelters shall be authorized for temporary purposes only. The appropriate authorities, including the SRRB, the DRRRC, the GNWT and the SL&WB (and the DLC, in the case of settlement lands) shall not authorize any commercial renewable or non-renewable resource development activities on Du K'ets'Edi.

5.6.4 EDAILLA (CARIBOU POINT) CONSERVATION ZONE

Size, Location and Boundaries

- Edaiila is illustrated on Map 10. It is located in the north-eastern part of the GBLW, and is approximately 8709 sq. km. in size. It's nearest point is approximately 200 km. from Déline. The boundaries of Edaiila encompass all of Caribou Point, several associated islands, and T'echo cho deh t'a tlaaa (Fort Confidence). T'echo cho deh t'a tlaaa is approximately 86 sq. km. in size. It includes the lower reaches of the Dease River, a considerable area of GBL shoreline and a small part of Ritch Island. Most of Edaiila is within the Grandin Plain Ecoregion, while a small portion is within the Coronation Hills and Coppermine River Uplands Ecoregions.

Land Ownership

- While most of Edaiila consists of Crown lands, the DLC holds the surface title to three parcels of settlement lands: relatively small parcels in the northern, T'echo cho deh t'a tlaaa part of the site and in its south-eastern, McTavish Arm/Kwita part, as well as a larger parcel along the eastern boundary of the site.

Reasons for Protection

1. Ecological Importance

- According to the elders of Déline, Edaiila is a very important place for wildlife. It contains very productive wildlife habitat, and it is important to the life cycles of a wide range of wildlife species. These species include barren ground caribou (the Bluenose-East herd), moose, grizzly bear, black bear, musk ox, fox (four species), beaver, marten, mink, muskrat, lynx, wolverine, arctic hare, ground hog and wolf. Edaiila is also very important for fish species, including lake trout, herring, pike, grayling, whitefish and “jumbo” whitefish.
- ENR research confirms that the Bluenose-East herd regularly aggregates in or close to Edaiila during the mid-July to mid-October period, suggesting that Edaiila is a very important area for this herd¹⁰⁵.
- The Sahtu Heritage and Places Joint Working Group recommended designating Edaiila as a Critical Wildlife Area to protect caribou, while permitting access to local hunters¹⁰⁶.
- Edaiila also contains several International Biological Programme Sites: Caribou Point, Cape MacDonald, Melville Creek and Fort Confidence¹⁰⁷.
- There is a special harvesting area for fish on the western tip of Edaiila.

2. Cultural and Socio-Economic Importance

- Edaiila has been used by the Sahtugot’ine for centuries. It is important because it preserves much of the physical heritage of the Sahtugot’ine: grave sites, caribou herding fences, quarries for the making of stone tools, traditional trails, camping sites, cabins, an old mission, river crossings, other gathering places, other archaeological sites, sites of contact (often violent) between the Sahtugot’ine and the Copper Inuit, and the implements associated with all of the above. Edaiila is another of the “natural museums” of the Sahtugot’ine.
- Edaiila is also important because of T’echo cho deh t’a tlaaa (Fort Confidence) and the remnants of the early explorations and dwellings of Franklin, Dease, Simpson, Hornby, D’arcy and others. These early explorations are important for several reasons, including their early relationship with the Sahtugot’ine.
- Edaiila is important for the many stories associated with places and events within it, and for the cosmology, history, values and law of the Sahtugot’ine that these stories preserve. It is considered a place of very strong medicine power. It is another of the “natural libraries” and spiritual places of the Sahtugot’ine.
- Edaiila continues to be important to the Sahtugot’ine for hunting fishing and trapping all of the above species, and for gathering of a variety of plants and berries – for food and the preservation of the hunting, fishing, trapping and gathering way of life. It is particularly important for summer caribou hunting. Since places within or adjacent to it remain ice-free year round, it is considered an emergency fishing place.

¹⁰⁵ Nagy, J., W. Wright, T. Slack, and A. Veitch, *Seasonal Ranges of the Cape Bathurst, Bluenose-West, and Cape Bathurst Barren-ground Caribou Herds*. (Inuvik: ENR, unpublished manuscript).

¹⁰⁶ Joint Working Group (1999) at 76.

¹⁰⁷ IBP, 1975.

- The Sahtu Heritage and Places Joint Working Group recommended oral history and archaeological research to document and protect extant heritage resources, and that the surface of documented sites be protected, with commemoration of specific sites to be negotiated following completion of the inventory¹⁰⁸.

Resource Development Potential

- very low oil and gas potential
- moderate to high mineral potential

FURTHER MANAGEMENT CONDITIONS

- a. Given the importance of Edaiila to the Bluenose-East caribou herd, and the issuance of prospecting permits throughout much of Edaiila in 2004 and 2005 (Map 5), this Conservation Zone shall be given immediate priority for the development and application of improved caribou protection measures pursuant to Part 4.7.1 above.
- b. Edaiila should be considered as a candidate National Wildlife Area under the PAS.

5.6.5 SAHYOUE AND EDACHO PROTECTED AREA

Size, Location and Boundaries

- Sahyoue and Edacho are illustrated on Map 11. They are located in the central part of the GBLW. Sahyoue is approximately 3400 sq. km. in size and Edacho is approximately 2500 sq. km. in size. Sahyoue and Edacho are each approximately 75 km, at their nearest points, from Déline. Their boundaries include all of their respective peninsulas. Sahyoue and Edacho are part of the Great Bear Lake Plain ecoregion.

Background

- The community of Déline has advocated the protection of Sahyoue and Edacho since the early 1990s. Both places are identified in section 26.4.2 of the SLCA as Sahtu heritage places.
- The Minister responsible for National Historic Sites designated Sahyoue and Edacho as a National Historic Site in 1998, and Sahyoue and Edacho are currently a Candidate Protected Area under the PAS. While that candidacy is being assessed, Parks Canada has sponsored a withdrawal of the Crown lands associated with both places. The withdrawal protects these lands while research and discussions between representatives of Déline, other agencies and Parks Canada proceed.

¹⁰⁸ Joint Working Group (1999) at 76.

- In 2004, representatives of the Déline Dene Band (now the Déline First Nation), the DLC and the Minister responsible for National Historic Sites approved a commemorative integrity statement for Sahyoue and Edacho¹⁰⁹.
- Parks Canada has prepared an management options paper on Sahyoue and Edacho, but its new Minister must be briefed and give direction on these options. Parks Canada cannot predict when or how its Minister will direct it on Sahyoue and Edacho. It estimates that it would cost approximately \$8M over 5 years to establish a protected area for these places (one-time costs). Parks Canada's protection of Sahyoue and Edacho would be contingent on its being able to secure this funding.¹¹⁰.
- Sahyoue and Edacho consist of approximately 80 percent Crown lands and 20 percent settlement lands. The DLC holds the surface title to the necks of both peninsulas, while the Crown holds the surface title to the majority of both peninsulas and the subsurface title to all of both areas.
- Settlement lands cannot be protected under the *Canada National Parks Act*: the *Act* requires clear title to be in the Crown. If the settlement lands at the necks of both peninsulas are to be protected further than as part of the Special Management Zone to be established under the GLB Management Plan and the Sahtu Land Use Plan, they would probably need to be designated as a Conservation Zone. In the October/04 workshop, however, a representative of Déline asked that the settlement lands associated with Sahyoue and Edacho not be designated as a Conservation Zone until Déline's negotiations with Parks Canada have proceeded further, so as not to foreclose the community's negotiation options.

MANAGEMENT PLAN APPROACH TO SAHYOUE AND EDACHO

- a. This Management Plan is based, at least at present, on the following assumptions:
 - i. The Crown lands portions of Sahyoue and Edacho will ultimately be established as a Protected Area, in accordance with the process set out in the PAS. In the interim, Sahyoue and Edacho will continue to be protected by a land withdrawal.
 - ii. The SLUPB should re-visit and confirm the first assumption above just prior to recommending the Sahtu Land Use Plan to SSI and Territorial and Federal Ministers for their approval. If the first assumption above seems doubtful at that time, the SLUPB should designate Sahyoue and Edacho as a Conservation Zone in the Sahtu Land Use Plan. The cultural and socio-economic importance of Sahyoue and Edacho is very high, well documented (see references in part 5.6.4 of the main body of the Management Plan) and comparable to Luchaniline and Tehkaicho Dé.
 - iii. The DLC will inform the SLUPB if it wishes the settlement lands portions of Sahyoue and Edacho to be designated as a Conservation Zone under the GBL Management Plan/Sahtu Land Use Plan.

¹⁰⁹ Canada, National Historic Sites of Canada, *Commemorative Integrity Statement, Sahyoue (Grizzly Bear Mountain), Edacho (Scented Grass Hills) National Historic Site of Canada* (2004).

¹¹⁰ Josie Weninger, address to October 21-24/04 Workshop in Déline (October 23, 2004).

- b. Given the above approach and the likely designation of Sahyoue and Edacho as a Protected Area under the PAS, this Management Plan does not attempt to document the ecological, cultural and socio-economic importance, the non-renewable resource development potential, or the management conditions and prohibitions that should apply to Sahyoue and Edacho. Many of these matters are documented as follows:
- i. Hanks (1996)
 - ii. Commemorative Integrity Statement for Sahyoue and Edacho
 - iii. Ecological Evaluation of Sahyoue/Edacho (PAS)
 - iv. L.P. Gal and J.M. Lariviere, *Sahyoue-Edacho Candidate Protected Area Non-renewable Resource Assessment (Phase I)*, NT.NWT Open File 2002-04 (Yellowknife: CS Lord Northern Geoscience Centre, 2002)
 - v. L.P. Gal and J.M. Lariviere, *Sahoyúé-Şehdacho, Candidate Protected Areas Non-renewable Resource Assessment (Phase II)* NT.NWT Open File 2005-** (Yellowknife: NWT Geoscience Office, in prep.)
 - vi. Cultural Assessment of Sahyoue/Edacho (PAS)
 - vii. EBA Engineering Consultants Ltd., *A Reconnaissance of the Flora and Fauna of Sahyoue and Edacho*, NWT (February 2003);
 - viii. Parks Canada has drafted Management Options for Sahyoue and Edacho, but they are not yet publicly available.

5.7 FURTHER RECOMMENDED ACTIONS FOR NEH KARILA K'ETS'EDI

5.7.1 INTERIM PROTECTION

Prospecting permits are issued in the NWT in January of any year, on the basis of applications received during the preceding December, and become effective on February 1¹¹¹. The January 2004 and 2005 issuance of the prospecting permits in the GBLW proceeded on this basis.

Further prospecting permits could be issued in the GBLW in January 2006. The issuance of further permits could further undermine the Conservation Zones initiative of this Management Plan and of the Sahtu Land Use Plan.

The normal practice for prospective Protected Areas in the NWT, where circumstances warrant, is to withdraw the lands within prospective Protected Areas while Protected Area proposals are being evaluated¹¹². However a withdrawal order appears not to be an option for the Conservation Zones identified above. This Management Plan thus recommends (Chapter 1) that, following public consultation on the GBL Management Plan and the larger Sahtu Land Use Plan and the subsequent amendment of the Sahtu Land Use Plan in 2005, the Land Use Planning Board should immediately forward the Great Bear Lake watershed portion of the Sahtu Land Use Plan to the Sahtu Secretariat Incorporated, the Territorial Minister and the Federal Minister, for their approval in accordance with section 43 of the MVRMA

5.7.2 RESOURCE ASSESSMENTS

¹¹¹ *Canada Mining Regulations*, subsection 29(12).

¹¹² PAS, at 14.

Mineral and energy resource assessments (“Resource Assessments”) are a normal practice prior to the establishment of high priority Protected Areas in the NWT¹¹³. But Protected Areas are established for the long term, whereas Conservation Zones are established only for the term of the Sahtu Land Use Plan (5 years), after which time they could be extended, amended or abolished. The recommendation below reflects this difference:

RECOMMENDATION Resource Assessments should be carried out for the Conservation Zones set out in this Management Plan. The Assessments can take place following the approval of the Sahtu Land Use Plan and the establishment of Conservation Zones. Given the five year term of the Sahtu Land Use Plan, the timing of Resource Assessments should not be allowed to delay the approval of the Plan or the establishment of its Conservation Zones.

5.7.3 ECONOMIC OPPORTUNITIES ASSOCIATED WITH NEH KARILA K’ETS’EDI

RECOMMENDATION Develop a strategic plan to capitalize on the economic opportunities generated by the establishment of Neh Karila K’ets’Edi.

5.7.4 AQUATIC REPRESENTATION

RECOMMENDATION Develop guidelines in partnership with government to evaluate aquatic representation within the GBLW.

5.7.5 MONITORING GUIDELINES FOR NEH KARILA K’ETS’EDI

RECOMMENDATION Develop guidelines for monitoring ecological and cultural integrity within Conservation Zones and Protected Areas.

¹¹³ PAS at 20.

6. CULTURE AND EDUCATION

ELDERS' STORY In Sahtugot'ine tradition, grandparents often played a central role in the upbringing and education of their grandchildren. Many years ago, when the time was right, one such grandfather took up the teaching of his grandson. His words "made a path" or "life-long road" for his grandson, which would allow his grandson to "see his gray hair at the end of his road". He taught his grandson of the universal law of the connectedness of all things, of respect for all things, and of the challenges that he would face along his particular road.

His grandfather also tied moose hide bracelets around the wrists and ankles of his grandson and instructed his grandson not to disturb the bracelets, to leave them on until they disintegrated and fell off naturally, and to inform him as they fell off. And he instructed his grandson to pay close attention to his dreams.

Thereafter, the grandson began dreaming of the moose. He developed a "mystical tie" to the moose, a tie that was to endure and develop for the rest of his life. After some time, his left ankle bracelet fell off. Later his right wrist bracelet fell off, and later again his right ankle and his left wrist bracelets each fell off in turn. When he informed his grandfather that the final bracelet had fallen off, of the order of their falling off and of his dreams, his grandfather was assured of the unity of his person and his relationship with the land. He declared his grandson sufficiently mature that he was now an adult and could establish his own household and home¹¹⁴.

APPROACH This chapter of the Management Plan provides for the establishment of a culture and education project in the GBLW. It sets out a vision for the future and summarizes contextual considerations. It then set out goals to focus the required work, and Management Plan policies.

6.1 VISION

This Management Plan supports the following, 10 to 15 year vision for Déline¹¹⁵:

- a. Déline's land-based traditional culture remains strong and vibrant. Déline's relationship with the land remains strong.
- b. The elders are respected. They continue to be consulted by community leaders and others. They play a central role in interpreting traditional Sahtugot'ine law and in the transmission of all aspects of Sahtugot'ine culture to the younger generations.
- c. The elders have a recognized role to play in the schools as well as on the land: they are as natural a part of the schools as are the other teachers.
- d. The three levels of government – the Government of Canada, the Government of the Northwest Territories and the Déline First Nation Government – work cooperatively together.

¹¹⁴ Charlie Neyelle, personal communication, June 25/04.

¹¹⁵ The vision statement in this part of the Management Plan must be read together with the Plan's other vision statements. This part of the Management Plan relies on and can only play a support role to other, larger community wellness initiatives in Déline.

- e. People in other parts of Canada and the world are given the opportunity to learn about Sahtugot'ine culture.
- f. The culture and education project leads to greater mutual understanding and greater mutual respect among people of different cultures.

6.2 CONTEXT

Sahtugot'ine culture has traditionally defined itself largely in terms of its relationship with the land and the Creator. To the elders of Déline, we are not separate from the land. Rather, we are part of "the land", in the deepest sense of that term.

Sahtugot'ine culture is a land-based, oral culture. It was traditionally passed on orally and through activities on the land – through careful observation of and learning from the land, and through the oral codification of this learning in various spiritual and ethical concepts, traditional law, codes of behaviour, stories, and an intimate knowledge of the natural environment and the behaviour of other creatures. This "traditional knowledge" has been developed and refined over long periods of time, and it has been passed on through many generations. The elders are the primary custodians and teachers in this oral culture, and it is ideally learned on the land. Thus many stories are associated with particular places on the land. They are told at those places (and by those places) and it is often for the listener to sort out what they mean. Sahtugot'ine traditional ecological knowledge is based on generations of careful observation of the used environment and its seasonal and yearly variations: knowledge of local micro-climates, ice and snow, river currents, plant communities, and animal movements and behaviour, etc. Through this body of knowledge, the Sahtugot'ine survived in a very harsh environment.

It should thus be plain, as suggested in Chapters 4 and 5, that the land in Sahtugot'ine culture fulfills many of the functions of libraries, schools, universities and spiritual places in most western cultures. It is the place where much of Sahtugot'ine culture is learned. It is the sustainer of all life. It is sacred. And human beings in turn have responsibilities towards it. Moreover, given the dominant role that the human species now plays in the natural environment, the elders say that we are even the more responsible for maintaining its ecological integrity.

The negotiation of the Déline Self-Government AIP and the future establishment of a Déline First Nation Government have been noted earlier in this Management Plan. The establishment of the Déline First Nation Government should contribute substantially to the maintenance of the cultural integrity of the GBLW.

The following goals, objectives and policies are important to the maintenance of the cultural integrity of the GBLW.

6.3 GOALS AND OBJECTIVES

- a. Support initiatives on the part of Déline to maintain and strengthen the land-based cultural traditions and their transmission from the elders to the younger generations:

- i. Document the cultural heritage of the GBLW, including important places and trails, burial sites, archaeological sites, and undocumented stories associated with particular places and meanings¹¹⁶.
 - ii. Encourage the transmission of this heritage from the elders to the younger generations; develop regular and meaningful opportunities for the elders to work on the land with younger people; work with the schools to ensure that this part of the younger generations' education is incorporated into the school curriculum.
 - iii. Promote and communicate this heritage within Déline and between Déline and the wider world.
 - iv. Protect¹¹⁷ archaeological sites and artifacts from human disturbance, destruction or degradation, and where appropriate, from natural disturbance, destruction or degradation.
- b. Protect places of particular importance to Sahtugot'ine cultural integrity¹¹⁸.
 - c. Document traditional ecological knowledge and protocols of the Sahtugot'ine¹¹⁹ and integrate this knowledge into all aspects of land and resource management, including research and monitoring.
 - d. Support and complement the larger system of land and resource management that will be established through the combined effect of the SLCA, the MVRMA, the Déline Self-Government Agreement, this Management Plan and the Sahtu Land Use Plan.

6.4 POLICIES

- a. The appropriate government authorities should make every reasonable effort to support initiatives on the part of Déline to maintain and strengthen the land-based culture and its transmission from the elders to the younger generations. Operational management and research and monitoring priorities are addressed in Chapters 3, 7 and 8 of this Management Plan, and the protection of the land (in the widest sense) is addressed in Chapters 4 and 5. Culture and education priorities are as follows:
 - i. Facilitate land-based activities for community members, particularly where the elders can pass on Sahtugot'ine culture to the younger generations.
 - ii. Assist elders and local/regional educators in defining clear teaching roles for the elders in the schools, and in the developing and incorporating culturally-appropriate

¹¹⁶ The documentation of the cultural heritage of the GBLW is addressed below (Chapter 7), as part of the Research and Monitoring Project.

¹¹⁷ Archaeological sites and artifacts are protected from human disturbance, destruction and degradation by the *Northwest Territories Archaeological Sites Regulations*. Suspected historical or archaeological sites or burial grounds are further protected by para. 6(a) and section 12 of the *Mackenzie Valley Land Use Regulations*.

¹¹⁸ The protection of many such places is addressed above, in Chapter 5.

¹¹⁹ Again, for the documentation of such knowledge, see below, Chapter 7, Research and Monitoring.

teaching materials in the school curriculum. Support the inclusion of materials on the GBLW in the curriculum, incorporating both Sahtugot'ine traditional knowledge and scientific knowledge about the watershed in the curriculum.

- iii. Support the community's efforts to develop its capacity in the fields of ecological and cultural research, monitoring and management.
- iv. Support community efforts to promote and communicate Sahtugot'ine culture, to develop greater mutual respect between Sahtugot'ine and people of other cultures, and (more specifically) to develop and maintain a GBLW website.

7. RESEARCH AND MONITORING

ELDERS' TEACHINGS Research and monitoring are as fundamental a part of Sahtugot'ine culture as they are of Euro-Canadian cultures, notwithstanding the differences in these cultural traditions. Many middle-aged and elder Sahtugot'ine tell a similar story. When they were younger, their elders gradually passed on to them the accumulated knowledge of the Sahtugot'ine. They also instructed them to observe, take note and be aware of every aspect of their surroundings: of the particular features of any place; of the constantly changing relationships among weather, snow, ice, currents, plants and animals; of the cycles and features of plants and the seasons; and of the particular movements and behaviour of mammals, fish and birds, etc. These instructions and the sometimes-puzzling stories of their elders would often cause younger people to wonder why they were being so instructed and what the stories might mean. But they recount that, later in life, when they sometimes found themselves outside the normal realm of their experience and in real danger, the teachings of their elders and the years of observation, now second nature, allowed them to respond with understanding and skill, and to survive. Some also recount how their elders instilled in them the certainty that no matter what the problem, it can be solved. There is an answer, but the answer can only be found by persistence, hard work and careful observation¹²⁰.

APPROACH This chapter of the Management Plan provides for the establishment of a research and monitoring program in the GBLW. It sets out a vision for the future and summarizes contextual considerations. It set out goals and objectives to focus the required work, and policies by which all future research in the GBLW should be bound. It is supplemented by Reference Document 1, a more complete "Research and Monitoring Plan for GBL and its Watershed"¹²¹.

7.1 VISION

Within 10 to 15 years, the research and monitoring program in the GBLW should have the following characteristics:

- a. The research and monitoring program provides an information base that is adequate for the maintenance of the ecological and cultural integrity of the GBLW.
- b. Site specific research and monitoring are carried out by the proponents of authorized activities, while a more general and ongoing research and monitoring program, funded by government and other organizations, is carried out by a range of parties, including government departments and agencies, regional management boards (particularly the SRRB), universities and Déline authorities/individuals.
- c. All research and monitoring projects in the GBLW are carefully coordinated to ensure the most efficient use of time and resources.

¹²⁰ Story distilled from various speakers, including Leroy André, personal communication, June 27/04 and Morris Neyelle, personal communication, June 27/04.

¹²¹ Czarnecki, Andrea, Marlene Evans, William Franzin, Kimberly Howland, Shawne Kokelj, George Low, Colin Macdonald, Nathen Richea, Jody Snortland Robin Staples and Doug Watkinson, *Research and Monitoring Plan for Great Bear Lake and its Watershed*, Prepared for the Great Bear Lake Working Group (December 2004) (hereafter cited as Czarnecki et al. (2004)).

- d. Cumulative effects are researched and monitored.
- e. Conservation Zones within the GBLW are used as control sites for larger research and monitoring initiatives. The ecological and cultural integrity of the Conservation Zones themselves is also researched and monitored.
- f. Research and monitoring activities are designed and carried out using both traditional and scientific knowledge.
- g. Déline organizations and individuals play an increasing and ultimately central role in ecological and cultural research and monitoring in the GBLW.

7.2 CONTEXT

In 2003/04, various authorities collaborated in the preparation of aquatic¹²² and terrestrial¹²³ state of knowledge reports and a traditional ecological knowledge report¹²⁴. All three reports have identified knowledge gaps and ecological stressors, and the need for a research and monitoring plan in the GBLW. The results of the planned research and monitoring program will be used to characterize the current state of the environment, provide the means to better understand the functioning and structure of the GBLW ecosystems, and determine if ecological conditions have changed due to climatic variation and/or human/industrial activities. The research and monitoring program should also contribute to better understanding and decision-making in the watershed, and it should help coordinate monitoring and reporting.

Much of the GBLW exists in a relatively pristine state. In the course of preparing this Management Plan, however, several organizations and agencies have raised concerns regarding past, present and potential future stressors on the entire GBLW ecosystem. MacDonald (2004) has identified several potential stressors including:

- a. contamination associated with historical mining operations in the vicinity of Port Radium and on the Camsell River drainage;
- b. contamination associated with other historical waste sites in the watershed;
- c. liquid and solid wastes associated with Déline and Gameti;
- d. fisheries exploitation;
- e. long range transport and accumulation of atmospheric pollutants;
- f. climate change and its potential effects; and (although the “cause” lies, as with climate change, outside of the GBLW)
- g. potential hydroelectric development on the Great Bear River.

¹²² MacDonald (2004)

¹²³ Macdonald (2004)

¹²⁴ Colin Macdonald, *State of Knowledge of the Great Bear Lake (Sahtu) Environment*. Prepared for the Déline Uranium Team. Déline, Northwest Territories (May 2003).

The evaluation of the effects of these and other stressors on the GBLW (including current mineral exploration and development) will require a monitoring system capable of detecting subtle changes in the structure and function of the entire GBLW ecosystem¹²⁵. No such monitoring program currently exists in the entire GBLW.

At present, research and monitoring projects in the GBLW are funded largely on a yearly basis. Funding varies from year to year. Further, government agencies, regional management boards and Déline organizations all currently face human resources limitations in implementing research and monitoring in the GBLW. Human resources limitations at the local level are particularly important, given the basic principle of this Management Plan that Déline organizations and individuals must play a leading, stewardship role in operational management of the GBLW, including research and monitoring.

The GBL Working Group expects that funding and/or human resources limitations will persist in the early years following approval of this Management Plan. It expects that these limitations will gradually be overcome. It expects that as secured sources of funding are gradually developed, Déline organizations and individuals, regional management boards and government agencies will gradually strengthen their research and monitoring capability in the GBLW. Ultimately, by year 10 of the Management Plan, the research and monitoring program should be able to supply sufficiently reliable information that decision-makers can make decisions appropriate to the ecological and cultural integrity of the GBLW. At present, information is lacking on several fronts, including environmental quality, wildlife populations and critical habitats. To address these gaps, the GBL Working Group's Technical Working Group designed and compiled potential research and monitoring projects into the Research and Monitoring Plan for Great Bear Lake and its Watershed ¹²⁶. These projects are intended to provide important baseline information on GBLW ecosystems, and to address the concerns identified to date by Déline residents, resource managers and scientific researchers.

The Research and Monitoring Plan for GBL and its Watershed will need to be amended and adapted as more is learned about the entire GBLW, and as experience in research and monitoring in the watershed grows. Research and monitoring in the watershed are in their infancy. This edition of the GBL Management Plan can only lay the foundation for the work that will follow.

Two further assumptions run throughout the research and monitoring program:

1. The member organizations of the GBL Working Group will make all reasonable efforts to ensure the development of a core capacity, in Déline, to carry on the work of the Technical Working Group and its community coordinator, through the Déline Knowledge Centre or other appropriate institutions.
2. Training and education should be built into all the projects of this Management Plan, including research and monitoring. If Déline organizations and individuals are to play a leading, stewardship role in the operational management of the GBLW, Déline residents will need varying degrees of education and training in research and monitoring.

¹²⁵ MacDonald (2004) at 3.

¹²⁶ Czarnecki et al. (2004)

7.3 GOALS AND OBJECTIVES¹²⁷

- a. Within 5 to 10 years, initiate research that will establish a sound foundation for a basic aquatic and terrestrial research and monitoring program in the GBLW, focused on the maintenance of the ecological and cultural integrity of the watershed. Wherever feasible and relevant, design the research and monitoring program to include control sites in Conservation Zones and monitor the ecological and cultural integrity of Conservation Zones as well as the GBLW as a whole. Within 10 or more years, adapt, refine, strengthen and broaden this research and monitoring program. Current objectives include the following:
 - i. collect and analyze information to establish current (baseline) environmental conditions of the GBLW;
 - ii. acquire a better understanding of climate change and the effects of long-range transport of atmospheric pollutants on the GBLW;
 - iii. better understand ecosystem functioning through scientific and traditional ecological research;
 - iv. document culturally significant sites in the GBLW and in Conservation Zones (including places, trails, grave sites, archaeological sites, etc.); and
 - v. document elders' place names and stories and the oral histories associated with the sites identified under iv above.
- b. Déline organizations and individuals play an increasing and ultimately central role, wherever possible, in GBLW research and monitoring:
 - i. Within 5 to 10 years, measurably increase the role that Déline plays in GBLW research and monitoring.
 - ii. Within 10 years or more, Déline residents and organizations are fully involved in GBLW research and monitoring.
 - iii. Incorporate training for Déline residents in GBLW research and monitoring projects.
 - iv. Involve Déline elders as research collaborators and trainers.
 - v. Link Déline schools, school kids, teachers and elders to the research and monitoring program wherever opportunity allows.
 - vi. Use the research and monitoring program to aid in the transmission of Sahtugot'ine culture from the elders to the younger generations – both in the schools and on the land.

7.4 POLICIES

- a. An ongoing (long-term) research and monitoring program must be established in the GBLW:

¹²⁷ Specific research and monitoring objectives are too numerous to state here. Please see Czarnecki et al. (2004)

- i As set out in 4.5.3(a)(i) and 5.5.3(a)(i) above, the proponents of authorized activities shall be required to carry out site-specific research and monitoring.
 - ii Government resource management departments and Déline authorities shall collaborate in updating, implementing and reporting on the more general and ongoing research and monitoring program – the Research and Monitoring Plan for GBL and its Watershed – in the Special Management Zone and Conservation Zones. Together with the research and monitoring under 7.4(a)(i) above, the more general research and monitoring program shall, within 10 years following the approval of this Management Plan, provide an information base that is adequate for decision-makers to maintain the ecological and cultural integrity of the GBLW. It shall include research and monitoring re. cumulative effects. Research and management authorities in the GBLW (including Déline authorities) should be resourced so that they are able, in full partnership, to carry out this more general research and monitoring program.
- b. The primary purposes of the research and monitoring program shall be the maintenance of the ecological and cultural integrity of the watershed, and the development of the research and monitoring capacity of Déline, so that Déline can again play a leading, stewardship role in the management of the GBLW. In public funding of research and monitoring in the GBLW, priority must be given to research and monitoring that can demonstrate a clear link to these purposes, and the coordination of proposed research or monitoring with other research and monitoring projects in the GBLW. All new and ongoing research and monitoring projects in the GBLW should consider the projects identified in the Research and Monitoring Plan for GBL and its Watershed as well as in the Report of the Sahtu Heritage Places and Sites Joint Working Group¹²⁸.
 - c. Research and monitoring must be designed and carried out using both scientific and traditional knowledge.
 - d. Guidelines on the collection and use of traditional knowledge shall be incorporated into the Research and Monitoring Plan for GBL.
 - e. Prior to undertaking research and monitoring in the GBLW, researchers and monitors shall consult the appropriate Déline organization(s) and the SRRB. The Déline First Nation Government, when established, shall identify the Déline organizations that are appropriate to different sorts of research and monitoring in the GBLW and that should be consulted, and it shall annually publish this information in plain language on its website as well as on the website of the SRRB.

¹²⁸ Joint Working Group (1999) at 76-91.

8. GBLW PATROLS AND ENFORCEMENT

APPROACH This chapter of the Management Plan addresses GBLW patrol and enforcement issues in the GBLW. First, it sets out a vision for the future. It then describes contextual considerations, goals and objectives to focus the required work, and policy commitments.

8.1 VISION

In 10 to 15 years time, the patrols and enforcement program in the GBLW should have the following characteristics:

- a. Patrols taking place out of Déline regularly monitor activities in the GBLW. Déline organizations and residents, the regional management boards and government management agencies are fully aware of what is happening in the watershed.
- b. Enforcement activities in the GBLW are fully coordinated among different enforcement agencies and Déline organizations, and Déline residents are trained or being trained to undertake enforcement activities.

8.2 CONCEPTS

This Management Plan uses several concepts. They are distinguished as follows:

- a. “enforcement” is carried out by inspectors or officers duly authorized to undertake a range of actions, typically including search and seizure, inspections and the laying of charges;
- b. “patrols” are carried out by persons who do not have the authority of officers or inspectors and whose primary purpose is the undertaking of surveys and the gathering of other information regarding resource use. Those carrying out patrols should be satellite phone equipped so that they can contact inspectors or officers should they encounter situations where inspections or enforcement may be necessary;
- c. “monitoring” refers to the regular measurement of environmental or social parameters and indicators. Persons carrying out patrols could also carry out monitoring and various research functions, as well as provide logistical support to others’ research and monitoring.

8.3 CONTEXT

Déline residents and organizations are concerned about the lack of any systematic patrolling of the fishing activities of GBL lodge visitors and itinerant fishers¹²⁹, and about the enforcement agencies’ limited enforcement capability in the GBLW.

Déline residents and organizations are also concerned that they should play a greater role in the operational management of the GBLW and about research and monitoring in the watershed. These issues are addressed in general terms in Chapters 3 and 7 of this Management Plan

¹²⁹ Fly-in fishers and those that arrive by boat up the Great Bear River.

respectively. This part of the Management Plan looks more specifically at the issues associated with patrols and enforcement.

Enforcement in the NWT (and in the GBLW) is currently limited by several factors, including limited funding and the costs of all aspects of enforcement, the stringent requirements of successful enforcement actions, the competing demands for enforcement from different parts of the NWT and the need to set priorities carefully but flexibly, and the educational and specialized training requirements of enforcement officers.

The enforcement agencies' officer capability in the GBLW is currently as follows:

- a. ENR has eight officers in the Sahtu, including one located in Déline, as well as several other officers throughout the NWT. ENR hired a new Déline officer in 2004.
- b. DIAND has two enforcement officers operating in the Sahtu out of Norman Wells, as well as officers in DIAND's other offices in the NWT.
- c. DFO has six fisheries officers in the NWT. They do patrols out of Yellowknife, Hay River and Inuvik. While DFO officers respond to GBLW issues, none are currently located in the Sahtu or the GBLW.
- d. Environment Canada has four officers who operate out of Yellowknife. As with DFO's officers, Environment Canada's officers respond to GBLW issues but none are currently located in the Sahtu or the GBLW.

Improving communications among the above officers and better coordination of their work are priorities for the above agencies. These priorities would be relatively inexpensive to implement. Communications between officers and Déline organizations and residents is another relatively inexpensive priority to implement.

In 2004, DFO initiated work on increasing the capability of the DRRC to patrol and survey fishing activities on GBL. In 2004, DFO made a 19' patrol boat available to the DRRC. The boat is to be used for GBL management purposes, including DRRC fisheries patrols and surveys and logistical support to other GBL management work. DFO plans to give the boat to Déline in future years. It expects that the boat will be available to other GBL management agencies on a cost recovery basis.

In 2004, DFO entered into a contract with the DRRC whereby two fishery workers under the direction of the DRRC undertook a range of patrol activities on GBL. The contracted work included a survey of GBL anglers, weather monitoring, remediation of campsites and identification of sites needing major remediation, data summary, and logistical support to GBL research and monitoring personnel, including DFO researchers. Given other potential demands on its implementation funding, DFO is uncertain whether it will be able to fund similar patrol work on GBL in future years. The project would be more sustainable if other researchers and/or monitors were to share these costs.

In 2004, ENR did a number of enforcement patrols on GBL and DFO assisted on one of these patrols. DFO personnel also visited the Tara and Port Radium mine sites under the contaminated sites program.

8.4 GOALS AND OBJECTIVES

- a. Within 1 to 5 years:
 - i. Enhance communications and cooperation among GBL enforcement agencies and between these agencies and Déline organizations and residents.
 - ii. Involve all enforcement agencies in GBL joint enforcement planning.
 - iii. Increase the capacity of the DRRC to do fisheries surveys and other environmental research & monitoring, to patrol fishing activities on GBL and to provide logistical support to researchers and management agencies; analyze results of 2004 contract with DRRC and adapt project in future years.
 - iv. Develop an inter-agency DRRC monitoring/patrols training plan, and systematically increase the patrols and research & monitoring capacity of the DRRC.
- b. Within 5 to 10 years, maximize the involvement of Déline residents and the DRRC in GBLW patrols, surveys, logistical support and monitoring.
- c. Within 5 to 10 years, develop and implement an inter-agency/Déline GBLW enforcement training program.

8.5 POLICIES

- a. Within 1 to 5 years, the enforcement agencies on in the GBLW shall collaborate in developing and implementing a Déline residents/DRRC patrols and research & monitoring training plan.
- b. Within 5 to 10 years, the enforcement agencies shall collaborate in maximizing the involvement of Déline residents and the appropriate Déline authorities in GBLW patrols, surveys, logistical support and monitoring.
- c. Within 5 to 10 years, the enforcement agencies shall collaborate in developing and implementing an enforcement agencies/Déline authorities' enforcement training plan.

9. CONTAMINATED AND WASTE SITE REMEDIATION

APPROACH This chapter of the Management Plan addresses contaminated and waste site remediation in the GBLW. It sets out a vision for the future and summarizes contextual considerations. It then identifies goals and objectives to focus the required work. Finally, it identifies specific action and broader policy commitments regarding contaminated and waste site remediation in the watershed.

9.1 VISION

In 10 to 15 years, the contaminated and waste sites remediation program in the GBLW should have the following characteristics:

- a. Major abandoned contaminated and waste sites in the GBLW are remediated. Smaller sites are remediated where this is economically and logistically feasible.
- b. The ecological and cultural integrity of the GBLW are maintained and where necessary remediated. Contaminants do not affect aquatic resources, drinking water and the traditional culture and way of life, and the cumulative effects of contaminants and other wastes are minimized.
- c. Some or all responsibilities for any remaining contaminated and waste sites on Crown lands are devolved to northern governments in accordance with the devolution transfer agreement, and these sites are remediated as budgets and opportunities allow. Déline authorities are meaningfully involved in contaminated and waste site remediation and management.
- d. Sites that have been remediated are monitored as part of the research and monitoring project described in Chapter 7 of this Management Plan.

9.2 CONTEXT

The Sahtugot'ine have depended on the pristine state of the GBLW to meet their social, cultural and economic needs for generations. Any deterioration in water quality from abandoned contaminated and waste sites has the potential to significantly alter their way of life. Abandoned mine and waste sites, and garbage and sewage from camps, lodges and the town of Déline are some of the greatest potential threats to the health of the GBLW¹³⁰.

The federal government becomes responsible for contaminated and waste sites in the NWT when the person or corporation that established a site is unknown or has abandoned it, and the site is on Crown lands. DIAND approaches the remediation of abandoned contaminated and waste sites North of 60 under the Contaminated Sites Management Policy (2002). This commits the Department to manage "contaminated sites in a cost effective and consistent manner, to reduce and eliminate, where possible, risk to human and environmental health and liability associated with contaminated sites." DIAND manages contaminated sites by following the Treasury Board's *Federal Contaminated Sites Management Policy*, and by using the recommended guidelines and standards set by the Contaminated Sites Management Working Group, the Canadian Council of Ministers of the Environment and the Canadian Standards Association.

¹³⁰ MacDonald (2004).

In setting remediation priorities among contaminated sites, DIAND uses the following criteria and a risk management framework:

- i. human health and safety;
- ii. legal and claims obligations;
- iii. significant impacts on the environment; and
- iv. concerns of First Nations, Inuit, northerners and other stakeholders.

The approach determines which sites receive funding during the annual planning cycle. Because risk management is used to prioritize sites, sites closer to larger human population centres generally receive remediation priority. In the past, this has hindered the remediation of sites in the GBLW. The federal government has recently, however, announced increased and longer-term funding for the remediation of contaminated sites throughout Canada. This increased funding, together with the coordination of smaller remediations with larger remediation activities, means that it will now be possible to address concerns at a range of contaminated and waste sites in the GBLW.

DIAND is committed to “working collaboratively with First Nations, Inuit, northerners and other entities to manage contaminated sites on reserve lands, other federal lands north of 60, and any other lands under DIAND’s custodial responsibility.” DIAND acknowledges special factors in addressing contaminated sites in the north, including the sensitive and unique environment, the scope and scale of sites, the significant logistical challenges, the need for an ongoing presence, the need to work with appropriate regulatory agencies and conduct public consultations, and the importance of traditional foods and other socio-economic challenges.

Remediation standards for contaminated sites can vary. The *Federal Contaminated Sites Management Policy* outlines the methodology for setting remediation objectives. DIAND will take into account the concerns of Déline authorities and regulators in selecting the appropriate method for establishing remediation objectives. DIAND will, for example, take into account any site conditions that are unique or particularly sensitive, and the impact of any potential residual contamination on traditional lands and lifestyles.

In 1999, the Déline Dene Band (now the Déline First Nation) and the Government of Canada agreed to the formation of the Canada- Déline Uranium Table (“CDUT”) to address concerns regarding the former Port Radium mine. But due to the nature of the human health and environmental concerns expressed by the community of Déline, this was a special case, and there is little chance of such a body being established again. Nonetheless, DIAND is committed to promoting Aboriginal and northern participation and partnership in the identification, assessment, decision-making and remediation/risk management processes relating to contaminated sites. The Department will also, as much as possible, plan the scale and pace of projects in keeping with northern and Aboriginal capacity for involvement.

The Northern Affairs Program at DIAND maintains a database of contaminated sites, which defines sites, lists physical hazards to human health and safety, and quantifies liabilities. This database is used primarily for project planning and funding, and is a valuable resource for those sites that have received funding.

Information on documented contaminated and waste sites in the NWT is currently stored in the DIAND’s Contaminated and Waste Sites Database. The Database is a compilation of information from DIAND’s land use inspectors, other DIAND personnel and community representatives. It may, however, be incomplete (Map 12). The listed sites range from the high-priority former Port

Radium mine site, to low-priority former blasting sites, to old fuel caches with scrap metal and drums. Table 9.1 below shows abandoned mine sites in the GBLW that are currently receiving funding for assessment and remediation activities.

9.3 GOALS AND OBJECTIVES

- a. Complete a comprehensive inventory of contaminated and waste sites in the GBLW:
 - i. Update and ground truth DIAND's contaminated and waste site inventory in consultation with Déline representatives.
 - ii. Coordinate future inventory work with the research and monitoring program described in Chapter 7 of this Management Plan.
 - iii. Use baseline information collected by the research and monitoring program for assessment and remediation activities around waste and contaminated sites.
- b. Remediate larger contaminated sites in the GBLW in accordance with Table 9.1 below and in cooperation with Déline authorities. Update Table 9.1 as necessary.
- c. Remediate smaller-scale contaminated and waste sites as opportunities arise in the remediation of the larger sites set out in b above.
- d. To the extent possible, work cooperatively with Déline authorities in identifying and ensuring remediation of sites, and maximize the economic opportunities available to local people in site remediation and management.

Table 9.1. Sites currently receiving funds for assessment and remediation activities through DIAND include the following:

| Site | Concerns | Current Activity | Planned Activities |
|------------------------------|--|--|--|
| Port Radium Mine | <ul style="list-style-type: none"> • Radionuclides • Metals | <ul style="list-style-type: none"> • CDUT has conducted human health and ecological studies under the Action Plan from 2000 - 2004 • CDUT will recommend a site remediation option to the Minister of DIAND and D line Chief and Council in March 2004 | <ul style="list-style-type: none"> • The mine site will be remediated under the Contaminated Sites Program, following the CDUT's recommendation for remediation |
| Terra Mine (Silver Bear) | <ul style="list-style-type: none"> • Metals • Acid drainage • Equipment / buildings | <ul style="list-style-type: none"> • Site investigations and assessments planned for summer 2004 • Buildings to be secured summer 2004 | <ul style="list-style-type: none"> • Full abandonment and remediation plan to be submitted to Regulatory Authorities March 2005 |
| Northrim Mine (Silver Bear) | <ul style="list-style-type: none"> • Metals • Arsenic • Hydrocarbons • Equipment / buildings | <ul style="list-style-type: none"> • Site investigations and assessments planned for summer 2004 • Buildings to be secured summer 2004 | <ul style="list-style-type: none"> • Full abandonment and remediation plan to be submitted to Regulatory Authorities March 2005 |
| Norex Mine (Silver Bear) | <ul style="list-style-type: none"> • Ammonia • Metals • Hydrocarbons • Equipment / buildings | <ul style="list-style-type: none"> • Site investigations and assessments planned for summer 2004 • Buildings to be secured summer 2004 | <ul style="list-style-type: none"> • Full abandonment and remediation plan to be submitted to Regulatory Authorities March 2005 |
| Smallwood Mine (Silver Bear) | <ul style="list-style-type: none"> • Metals • Equipment / buildings | <ul style="list-style-type: none"> • Site investigations and assessments planned for summer 2004 • Buildings to be secured summer 2004 | <ul style="list-style-type: none"> • Full abandonment and remediation plan to be submitted to Regulatory Authorities March 2005 |
| Contact Lake Mine | <ul style="list-style-type: none"> • Uncontained tailings / surface run-off • Buildings | <ul style="list-style-type: none"> • Ground and surface water sampling planned for summer 2004 | <ul style="list-style-type: none"> • Eventual abandonment and restoration plan (further investigation required) |

9.4 POLICIES

- a. The primary purpose of the contaminated and waste sites remediation program in the GBLW shall be to ensure that the ecological and cultural integrity of the watershed are maintained.
- b. In consultation with Déline authorities, DIAND shall inventory, research, monitor and remediate contaminated and waste sites in the GBLW¹³¹. If a thorough remediation is not feasible, the wastes should be contained. Without limiting the generality of the foregoing, DIAND shall:
 - i. update and ground truth its inventory of contaminated and waste sites in the GBLW, and update Table 9.1 (in the main body of the Management Plan) on a yearly basis;
 - ii. coordinate future inventory, assessment and remediation work in the GBLW with the research and monitoring program described in Chapter 7 of this Management Plan;
 - iii. remediate known contaminated sites as set out in Table 9.1, and remediate smaller contaminated and waste sites as opportunities arise and as the confirmed budgets allow; and
 - iv. work cooperatively with Déline authorities in identifying and ensuring remediation of sites and, to the extent possible¹³², maximize the economic opportunities available to Déline authorities in site remediation and management.
- c. Until devolution, the federal government should continue to be responsible for the assessment and remediation of abandoned contaminated and waste sites on a priority basis. The federal government shall provide reasonable funding to allow for meaningful community involvement in the activities it undertakes to address concerns about identified sites. These responsibilities may change post-devolution in accordance with a devolution transfer agreement.

¹³¹ Given the potential costs of these activities, please note the qualifier in Part 2.3 above.

¹³² Qualifier included in light of overlapping interests as identified in the Tli Cho Agreement and the Akaitcho Interim Measures Agreement.

10. TRANS-BOUNDARY ISSUES

Most of the watershed of GBL lies within the Sahtu settlement area, and this first edition of the GBLW Management Plan has restricted itself to the Sahtu portion of the watershed. There are several reasons for this restricted focus, including Déline's historic interest and initiative in protecting this unique watershed, the opportunity provided by the development of the Sahtu Land Use Plan and the practicality of a phased approach to the protection of the watershed as a whole.

By the same token, however, much of the watershed of GBL lies outside of the Sahtu settlement area, in the Nunavut, the Deh Cho and particularly in the Tlicho (Wek'eezhii) settlement areas. The GBL watershed comprises approximately 144,069 sq. km. in total. The watershed's breakdown in various jurisdictions is as follows:

| | |
|----------|------------------------|
| Nunavut: | 2% (2,876 sq. km.) |
| Deh Cho: | 4% (6,401 sq. km.) |
| Tlicho: | 31% (44,525 sq. km.) |
| Sahtu: | 63% (90,267 sq. km.) |
| Total: | 100% (144,069 sq. km.) |

Water flows, animals migrate and air pollution knows no boundaries. Action to protect the GBLW – to keep it clean and bountiful for all time – will only be effective if authorities throughout the watershed (and beyond) cooperate in the maintenance of its ecological and cultural integrity. Déline's elders inform the GBL Working Group that this matter is too important to be left unresolved. As with this Management Plan, they would like to lay the foundation for cooperation with other jurisdictions. They propose to do this through discussions, similar those that took part in much earlier times, with the elders of adjacent jurisdictions. The GBL Working Group supports this approach. It recommends as follow:

10.1 RECOMMENDATIONS

- a. The appropriate government authorities should make every reasonable effort to allow Déline's elders to meet with elders in adjacent jurisdictions, to discuss cooperative principles and processes by which the larger watershed of GBL may be kept clean and bountiful for all time. Other agencies, including the SLUPB and the SRRB, should observe and, where appropriate, lend support to this initiative.
- b. With the incorporation of the GBL Management Plan into the Sahtu Land Use Plan and the public review and refinement of the Land Use Plan in 2005, the SLUPB and the SRRB should work with comparable authorities in adjacent parts of the GBL watershed to establish processes by which the elders' initiative may be completed and by which the ecological and cultural integrity of the larger watershed may be assured.

11. PLAN REVIEW AND AMENDMENT

Chapter 1 has addressed why this Management Plan is necessary, the incorporation of the Management Plan into the Sahtu Land Use Plan, the accelerated approval of the GBLW part of the Sahtu Land Use Plan, its implementation and the need for implementation funding.

The GBL Working Group expects that this Management Plan will be updated as experience and more scientific knowledge are acquired about the GBLW, and as the capacity of Déline organizations develops. Section 50 of the MVRMA requires the SLUPB to carry out a comprehensive review of the Sahtu Land Use Plan every five years, or at other intervals as agreed to by the Federal Minister, the territorial Minister and SSI. The GBL Working Group expects that the GBL Management Plan will be undated as part of the larger review of the Sahtu Land Use Plan.

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APPENDIX 1: THE GREAT BEAR LAKE WORKING GROUP

The GBL Working Group is an ad hoc group established to prepare this Management Plan. At the time of the Plan's submission to the SLUPB, the Working Group's membership included representatives of Déline's Elders, the Déline First Nation, the Déline Land Corporation, the Déline Renewable Resources Council, the Déline Self-Government team, the Déline Uranium Team, the (federal) Departments of the Environment, Fisheries and Oceans and Indian Affairs and Northern Development, the (territorial) Department of Environment and Natural Resources, the MVEIRB, the SLUPB, the SRRB, and the Canadian Parks and Wilderness Society - NWT Chapter. The SL&WB acted as an observer of the GBL Working Group.

APPENDIX 2: REFERENCE DOCUMENTS

Reference Document 1: Andrea Czarnecki, William Franzin, Marlene Evans, Kimberly Howland, Shawne Kokelj, George Low, Colin Macdonald, Nathen Richea, Jody Snortland, Robin Staples and Doug Watkinson (authors in alphabetical order), *Research and Monitoring Plan for Great Bear Lake and its Watershed*, Prepared for the Great Bear Lake Working Group (December 2004).