Lake Kipawa

Concerted Management Plan

by

Organisme de bassin versant du Témiscamingue

March 2014

MRCT

OBVT

Organisme
de bassin versant
du Témiscamingue

KIPAWA

LAKE KIPAWA CONCERTED MANAGEMENT PLAN

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[1] *For more details, please refer to section 1. Methodology*
[2] *For more details, please refer to section 1. Methodology*

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AGZAT: Association des gestionnaires de ZEC d'Abitibi-Témiscamingue (ZEC managers association)
APAT: Association des pourvoyeurs d'Abitibi-Témiscamingue (outfitters association)
APART: Association pour l'avenir des ressources témiscamiennes (association for the future of Témiscamingue's resource)
ATRAT: Association touristique régionale de l'Abitibi-Témiscamingue
BPC: Biphényles polychlorés (PCB: Polychlorinated Biphenyls)
CEHQ: Centre d'expertise hydrique du Québec (Quebec water expertise centre). An agency of the Ministry of Sustainable Development, Environment, Wildlife and Parks.
CREAT: Conseil régional de l'environnement de l'Abitibi-Témiscamingue (regional environmental board)
CRÉAT: Conférence régionale des élus d'Abitibi-Témiscamingue (regional board of elected officials)
CRRNT: Commission régionale des ressources naturelles et du territoire (regional board on land and natural resources)
EVFN: Eagle Village First Nation – Première nation d'Eagle Village
FAPAQ: Commonly known as Société de la faune et des parcs in French
FPQ: Fédération des pourvoiries du Québec
FQCK: Fédération québécoise du canot et du kayak
IES: Invasive exotic species
MLCP: ministère des Loisirs, de la Chasse et de la Pêche (former Québec ministry of recreation, hunting and fishing)
MRCT: Municipalité régionale de comté de Témiscamingue (Témiscamingue regional county municipality)
MDDEFP: ministère du Développement durable, de l'Environnement, de la Faune et des Parcs (Ministry of Sustainable Development, Environment and Parks)
MRN: ministère des Ressources naturelles (Ministry of Natural Resources)
OBVT: Organisme de bassin versant du Témiscamingue (Témiscamingue's watershed organisation)
ORRPB: Ottawa River Regulation Planning Board
PATP: Plan d'affectation du territoire public (public land use plan)
PBDE: Polybromodiphényléthers
PCB: Polychlorinated Biphenyls
PDRRF: Plan de développement régional associé aux ressources fauniques (regional development plan for wildlife resources)
Pers. Comm: Personal communication
PRDTP: Plan régional de développement du territoire public (regional public land development plan)
PRDIRT: Plan régional de développement intégré des ressources et du territoire (regional plan for integrated land and natural resource development)
QOF: Québec Outfitters Federation
SÉPAQ: Société des établissements de plein air du Québec (Témiscamingue development corporation)
SDT: Société de développement du Témiscamingue
TCDD: 2,3,7,8-tétrachlorodibenzo-p-dioxine
TCF: Territoire à caractère faunique (area of wildlife interest)
WLFN: Wolf Lake First Nation – Première nation de Wolf Lake
ZEC: Zone d'exploitation controlée (controlled harvesting zone)

ACKNOWLEDGEMENTS

The Lake Kipawa Concerted Management Plan is the first management plan produced on an area of wildlife interest in Abitibi-Témiscamingue. In addition to being a real challenge, it represents a tremendous amount of work in which the involvement of the public, stakeholders and elected officials was essential to successfully complete this process. The editing team wishes to thank all the people who participated directly or indirectly in the success of the Management Plan and who devoted precious time to the project.

Once again, thanks to all!

ABSTRACT

A moratorium on cottage development on public land has been in force on Lake Kipawa for approximately 30 years. Consultations and discussions were carried out to reflect upon the moratorium and the overall management of the lake.

The key message resulting from these joint efforts can be summarised by the lake's vocation, as defined by a Consultative Committee:

"Lake Kipawa is a body of water with exceptional characteristics that should be preserved. No development on the Lake should affect the integrity, quality and long term preservation of this body of water. Actions should be put forward to adequately know and manage present and future problems."

All those who participated in the process reflected on a broad diversity of themes such as permanent and seasonal residency, fishing and fish populations, pleasure boating and lake usage, commercial and industrial activities, to name a few. These themes are related to different propositions for action that were integrated into the following Management Plan.

INTRODUCTION

Since the 1980's, a moratorium has been in force on Lake Kipawa, classified as an area of wildlife interest for its exceptional characteristics and the precarious state of its wildlife. The moratorium initially restricted the increase of the outfitters' accommodation capacity, and afterwards, it was applied to all cottage development on public lands. It does not cover private land, which explains why developments have taken place since the moratorium was imposed. This type of moratorium can be lifted conditional to the completion of a concerted development plan by a Consultative Committee. In the present case, this document is called the Lake Kipawa Concerted Management Plan, but for administrative purposes, the Ministry of Natural Resources uses the name of Concerted Development Plan.

The present document is aimed at assessing the situation of the lake's characteristics, existing problems and the community's concerns; such is the content of the sections *Profile of the Territory and Portrait of Individual and Group Concerns*. The management objectives proposed by the Consultative Committee are found in the following section, and the Management Plan concludes with proposed actions. Potential implementation bodies are also identified by way of indication. Therefore, this Management Plan is an amalgamation of the three progress reports that were prepared as the project developed.

The project is an initiative lead by the MRC de Témiscamingue who called upon the OBVT to draft the document and organise consultations. Partners such as the CRÉAT, MRN and the municipality of Kipawa are also involved through a Steering Committee.

Once finalised, the document will be approved by the MRC de Témiscamingue and submitted to MRN.

The objectives and description of the process, as presented at the onset of the project, are presented in more details in the Project Plan in **Appendix 1.**

1. METHOD

The different people involved in the project and the operating method are presented below.

1.1. Steering Committee

Throughout the process, a Steering Committee ensured compliance with the budgets and deadlines. It also worked on the Concerted Management Plan format and the consultation strategy to be adopted. It was made up of the project's instigators and funders, plus OBVT representatives:

- MRCT, Tomy Boucher, Assistant Director General; Norman Young, Mayor of Kipawa
- CRÉAT, Jean-François Turcotte, Development Officer
- MRN, Claude Massé, Head of Management Unit
- OBVT, Ambroise Lycke, General Manager; Thibaut Petry, Project Manager.

The Committee held 10 meetings throughout the project.

1.2. Consultative Committee

The Consultative Committee's membership was determined at the public meeting of April 18. The members and the attendance list for the different meetings are summarised in the following table:

CONSULTATIVE COMMITTEE					
Groups	**Representatives**	**June 4, 2013**	**July 22, 2013**	**Sept. 17, 2013**	**Oct. 28, 2013**
MUNICIPALITIES					
Témiscaming	Philippe Barette	X	X	X	X
Kipawa	Norman Young	X	X	X	X
Laniel	Yvon Gagnon	X	X		X
Béarn	Luc Lalonde				
ENVIRONMENTAL AND COMMUNITY SECTOR					
Environmental organisation	APART : Johanne Descoteaux	X	X	X	X
Shoreline Owners Association	Henri Laforest	X	X	X	X
Users Association	Vacationers and Témiscaming-Kipawa Chamber of Commerce: Daniel Goulet	X		X	X
Hunters, anglers	Gino Lafrenière puis Daniel Nadeau		X	X	
Citizens	André Lapierre, Claude Bérubé, Clyde & Thomas Mongrain, Karen Kowalchuk & Stephen Kilburn	All present	Clyde Mongrain absent	Claude Bérubé absent	All present
ECONOMIC SECTOR					
Outfitters (Economic and Tourism Sector)	Yves Bouthillette	X	X	X	X
Tourisme	Dany Gareau	X		X	X
Industrial Sector	Claude Brisson (Matamec)	X	X	X	X
Témis-accord Chamber of Commerce	Robin Larochelle	X		X	X
ABORIGINAL COMMUNITIES					
Eagle Village					
Wolf Lake					

Table 1: Composition of the Consultative Committee and attendance to the different meetings. Lake Kipawa Concerted Management Plan

1.3. Main Phases

Profile of the territory and Concerns

The following section is aimed at drawing a profile of the territory and presenting the documented issues concerning Lake Kipawa; it is the result of a comprehensive literature review, consultation with regional experts (MRN, MDDEFP, universities, MRC, municipalities, etc.) and contributions from stakeholders and local population. In no case the raised issues result from the authors' personal reflections. The analysis was done based on the available information; some information may have been omitted unintentionally.

In the consultation phase, it is of prime importance to take this information into account.

In addition to the information obtained from the literature review and consultations with the experts on the territory, the project managers wanted to involve as much as possible the territory's users and more generally the people interested in it.

The purpose of this second phase of the process is to clearly identify the actors' and stakeholders' vision. The ultimate objective is to seek a form of development that respects the quality of the environment.

Through continuous communication regarding the project, people who feel concerned can participate. The public consultation workshops, personal communications by the author, the online survey and the petition (reference provided in section 3. Portrait of Individual Concerns) were merged to identify developmental concerns and intents.

At the same time, a Consultative Committee was formed to closely monitor the different stages by providing opinions and enhancing the document (and to produce a document consistent with the local reality).

The different planned stages of communication are as follows:

- Press conference for the official launching of the project on March 27, 2013, releasing of the Project Plan;
- Public consultation meeting on April 18;
- Users Consultative Committee on the stakeholders' and population's concerns on June 4;
- Users Consultative Committee on the objectives and Lake Kipawa's vocation on July 22 and September 17;
- Consultative Committee on the Action Plan and Zoning Plan in October 28;
- Other meetings could be held if deemed necessary by the stakeholders and the public.

Regular publications in local media have also allowed keeping the population informed.

The Aboriginal communities living on the shores of Lake Kipawa were met at the very beginning of the project; they were presented with the process and asked how they wished to participate in the project. They were met again afterwards and a regular follow-up was done. For information, the MRN has the mandate to officially and separately consult Aboriginal communities. The parallel consultation work, with the Consultative Committee on one hand and with First Nations on the other hand, was explained to all those participating in the process. The information drawn from each meeting was sent by the OBVT to the different stakeholders. A document was produced by the two First Nations communities (EVFN & WLFN, sept. 2013, see **Appendix 2**) and the results are included in the present document *(section 4.4.)*.

Determination of Lake Kipawa's objectives and vocation

In a management plan such as this one, the definition of the objectives is of prime importance. They allow taking into account all the aspects of the lake's future management.

In the Lake Kipawa Concerted Management Plan development process, a very large number of issues and concerns were raised.

The purpose being to respond to as many issues and concerns as possible, broader themes were prepared and all the data were categorised according to these themes so as to be able to take them into account (see the first progress report, *Section 5. Summary of Issues and Concerns*). Based on these thematic categories, the objectives were drafted by the Consultative Committee.

Only one meeting of the Consultative Committee had been planned to determine the objectives (July 22, 2013). Workshops were organised on the different themes: each Committee member was thus able to participate in each workshop in a small group format.

Finally, the time planned to cover all the aspects in one evening was too short. A second meeting to finalise the objectives was therefore organised (September 17, 2013). Between these two meetings, the Consultative Committee representatives has the opportunity to review the objectives and come back in the plenary session of the second meeting for the final validation of the objectives.

This procedure has allowed determining consensual objectives and those that were not. A consensual objective is one that all members agree upon; the lack of consensus was not a problem as it was recorded as such.

Ultimately, Lake Kipawa's vocation was stated by the Consultative Committee.

Determination of the actions for Lake Kipawa

• Determination of the actions

The methodology used to define the actions called once again on the contribution of the Consultative Committee, responsible for the content of the project documents. Based on the objectives and after making certain groupings to avoid the repetition of cross-cutting themes, actions corresponding to each objective were sought. The actions that had already been proposed during the process were also included.

• Exercise to assess the importance of the actions

In parallel to the determination of the objectives, and with a view to providing an indication to the decision-makers, an exercise was proposed to assess the importance of the actions for the Consultative Committee members. The purpose was to establish an order of importance for each action, depending on the group represented on the Consultative Committee. The following scale from 0 to 5 was used:

0: Disagree	3: More or less important
1: Not important	4: Important
2: Slightly important	5: Very important

It was possible to check "Disagree" only for the actions that reflected a non-consensus objective (actions 20, 21 and 24). There was a difference on the results treatment to avoid bias: these three actions will be differently present in the section *8 Actions for Lake Kipawa*.

For the consensus-based actions, since they had been discussed by the group, the action had to be classified from "not important" to "very important". Data were processed by adding the results of the exercise for each action while ensuring anonymity. The highest accrued value is 65, while the lowest is 13. Based on these totals, a classification was done by way of indication. Several actions have the same classification due to identical totals (equality). Fourteen classes came out on a total of 26 actions to be assessed. The three non-consensus actions are presented separately.

Throughout the process, the Consultative Committee was aware of the indicative and non-decisional character of the evaluation exercise. It was aimed at better understanding the Consultative Committee's priorities, and not to guarantee implementation priorities. The latter will rather be based on the decision-makers' choices (MRCT, MRN) and the funding opportunities that may become available.

• Actions Implementation Bodies

Along the same line, a list of potential implementation bodies was developed by way of indication and without any commitment from the part of the mentioned actors and organisations. The purpose was to provide an additional detail to make the document as complete as possible.

At the end of the project, a questionnaire was sent to the Consultative Committee members to assess their satisfaction and appreciation of the whole process. Those of answered the questionnaire are generally satisfied. The results are presented in **Appendix 3**

• Technical Sheets

As a complement to its mandate to draft the Management Plan, the OBVT produced a series of technical sheets to be used as tools in relation to a number of major actions found in the action plan. These sheets are linked to actions and they are referenced in *section 8. Actions dor Lake Kipawa.*

2. PROFILE OF THE TERRITORY

The territory profile is divided into two main subsections:

- First, we will describe the territory and its human occupation.
- Secondly, we will describe the natural environment, flora and fauna.

2.1 Location and Description of Lake Kipawa

2.1.1 Location of Lake Kipawa

Lake Kipawa, with a surface area of 300.4 km², is located in the southwestern part of Abitibi-Témiscamingue, bordering Ontario.

The territory considered in this document corresponds to the area of wildlife interest on which the MRN has established a moratorium; it includes Lake Kipawa with a 300-metre riparian buffer zone and the following lakes with the same buffer zone:

- Lake Desquerac
- Lake Grindstone
- Lake Hunter's Point
- Lake Mclachlin
- Lake Audoin
- Lake Mungo
- Lake Hunter
- Lake Bedout

The perimeter of this area of wildlife interest (length of shorelines) is 891.9 km. If we also take into account the length of the islands' shorelines, it adds up to a perimeter of 1513.4 km.

The total surface of the area of wildlife interest is 419 km² (MRCT, 2013). Nevertheless, we cannot ignore the major problems observed on the whole watershed of a surface area of 6064 km² that extends from Belleterre in the north to the unorganised territory (TNO) of *Les Lacs-du-Témiscamingue* in the east. See **Figure 1**: Location of Lake Kipawa Watershed

2.1.2 Description of Lake Kipawa

In Québec, there are 89 lakes of more than 100 km². About two thirds of them are found in arctic Quebec (Nunavik) and are hardly accessible, contrary to the nine lakes in Abitibi-Témiscamingue. These are Lake Abitibi, Parent, Simard, Des Quinze, Kipawa, Témiscamingue, Grand Lake Victoria and the Dozois and Decelles reservoirs (Société de la faune et des parcs, 2002). Lake Kipawa is 104 metre deep in average with a 342 metre deep trench (Navigation Québec).

Lake Kipawa's two (2) outlets are the Kipawa River flowing out of the lake in Laniel, and Gordon Creek in Kipawa. Both are dammed, thus giving the lake a reservoir status.

The Kipawa River, upstream of the lake, as well as countless creeks and underground springs feed the lake (MRCT, 2013). Many islands, sometimes sizeable, are found on Lake Kipawa (for example, MacKenzie Island and Corbeau Island).

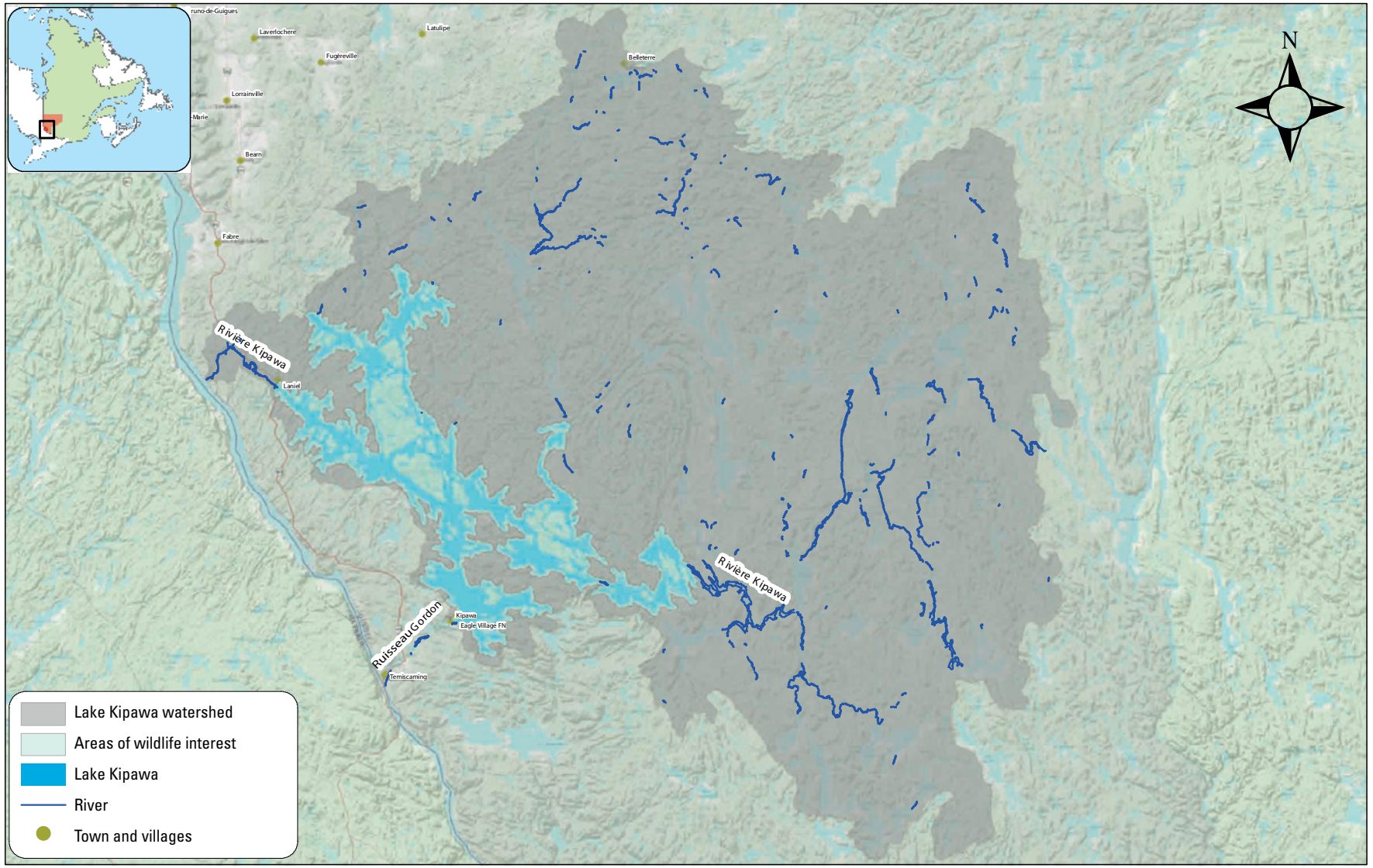

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Figure 1: Location of Lake Kipawa Watershed

2.2 Land Allocation and Use

2.2.1 Land Allocation

The municipalities of Béarn, Laniel, Kipawa and Témiscaming extend around the lake. The unorganised territory of Les Lacs-du-Témiscamingue includes the eastern part of the lake. The communities of Eagle Village First Nation and Wolf Lake First Nation represent the resident Aboriginal population of the lake, and they live in the neighbourhood of Témiscaming and Kipawa. See **Figure 2**: Administrative Divisions on Lake Kipawa.

It is to be noted that in addition to the year-round resident population in the immediate neighbourhood, there is an important summer population and visitors that are difficult to quantify (no existing data).

Most of the area is public land, and private lots accounts for 3.4 km² enclaved around the lake: around the municipalities of Laniel and Kipawa, but also at the Red Pine Chute and scattered lots here and there.

Outside of the inhabited areas, most of the land is forest used for wood production (stove wood for domestic use or industrial processing). See **Figure 3**: Main Land Allocations in the Area of Wildlife Interest on Lake Kipawa.

The Opémican National Pak will be implemented northwest of the lake. Most of the territory is located along the Ottawa River and a smaller part extends on the shores of Lake Kipawa. The territory outlined on the map (draft) is subject to changes that were not available at the time of writing this report. McKenzie Island and Pointe du Rocher au Corbeau, for example, have been withdrawn from the initial park project; they will become biodiversity reserves, so hunting will be allowed in them.

The Opémican Regional Park is located within the territory limits. It covers an area of 6.5 square kilometres and it was made official in 2000. It was implemented by the MRC de Témiscamingue, essentially to develop recreational activities around the Opémican Point where buildings that are part of site classified as cultural property in 1983 are found. This is a former operation facility for log driving. On March 21, 2013, the Québec government announced the creation of the Opémican National Park on a large tract of land including the Regional Park, which made the latter's status obsolete.

Nine (9) biological refuges: mature or overmature forests representative of Québec's forest heritage are found around the lake. **Figure 4** shows the different locations of these protected areas as well as structured territories.

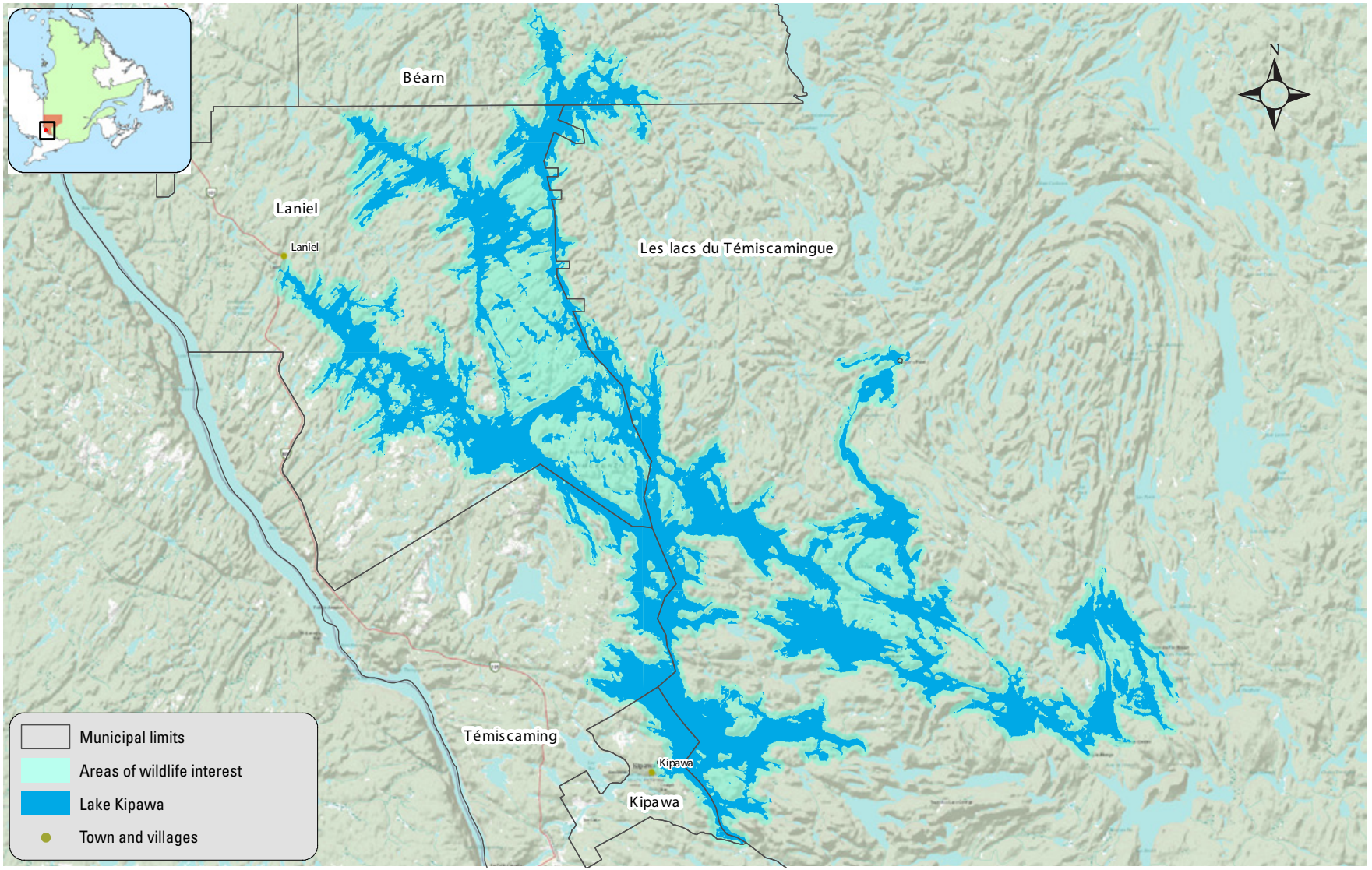

Figure 2: Administrative Divisions on Lake Kipawa

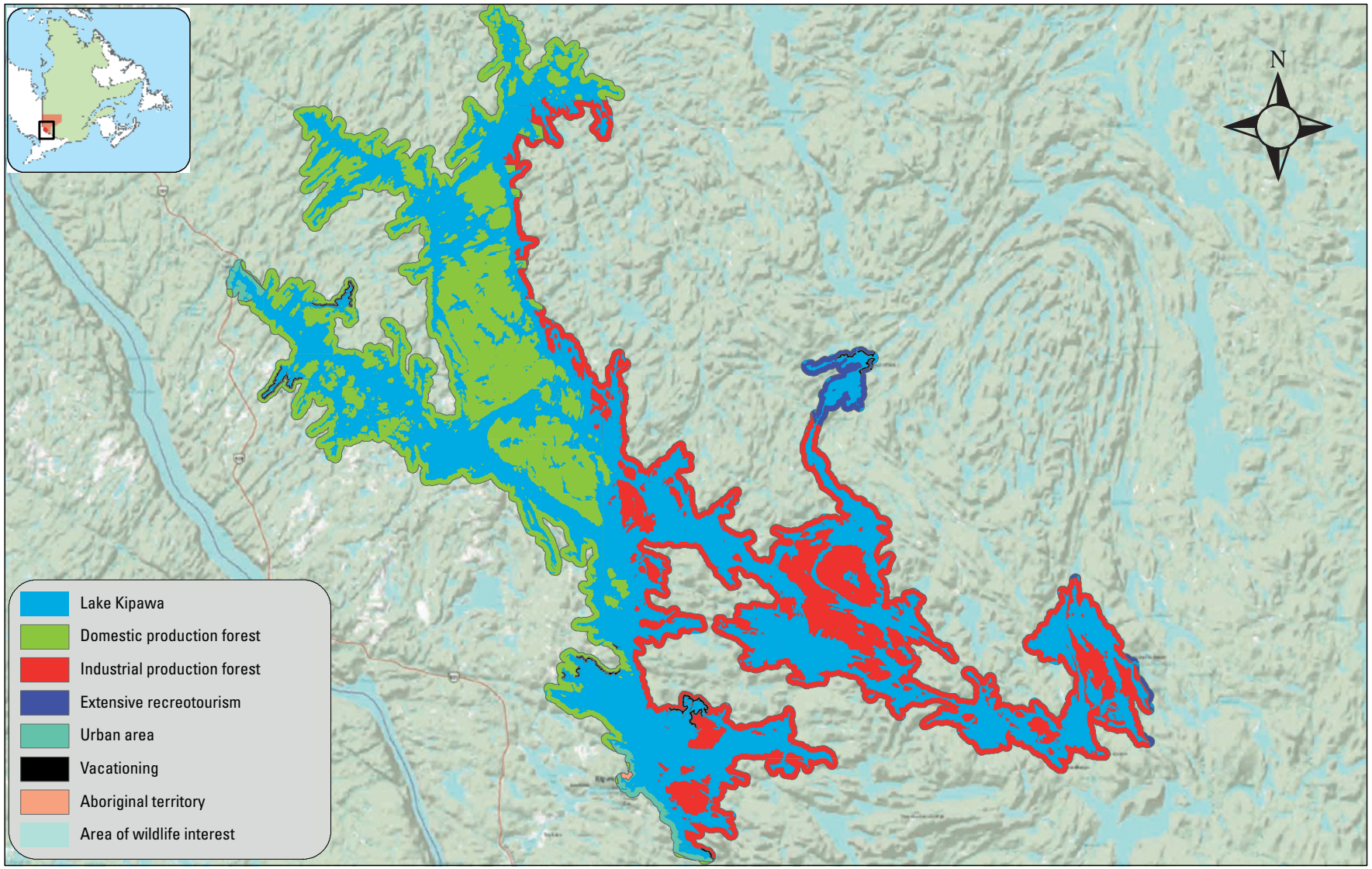

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Figure 3: Main Land Allocations in the Area of Wildlife Interest on Lake Kipawa

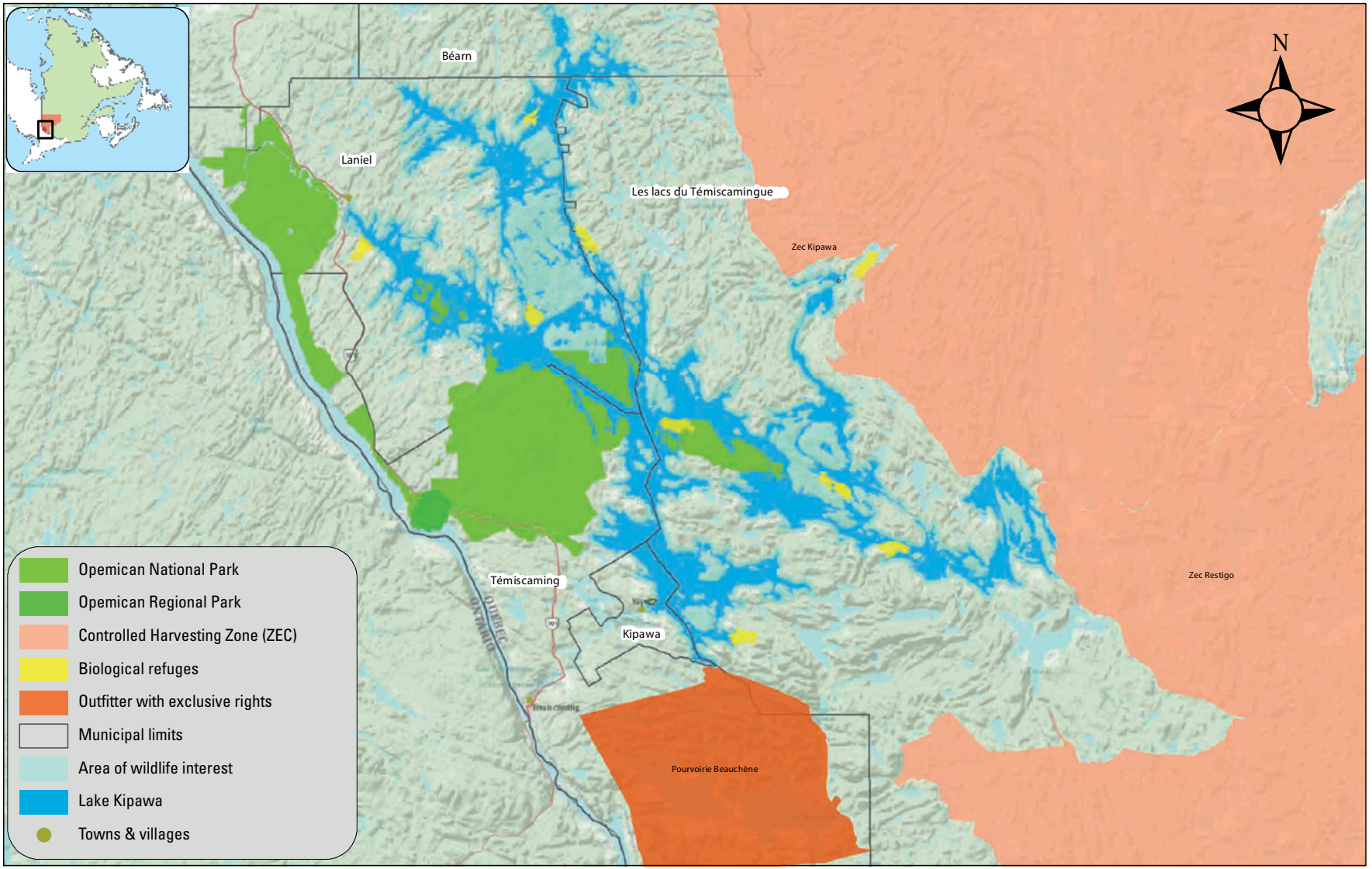

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Figure 4: Protected Areas and Structured Territories around Lake Kipawa

2013

0 3.25 6.5 13 Km

2.2.2 Land Use

- Three (3) controlled harvesting zones (ZECs) are found not far from the lake, but do not overlap the area of wildlife interest (Kipawa, Restigo, Maganasipi)
- The Beauchêne outfitting operation, with exclusive rights, is located south of the lake without touching it.
- Twenty-one (21) outfitters were present in 2013 on the shores of Lake Kipawa, including 126 camps (FPQ, 2013). The whole Témiscamingue region accounts for a total of 52 outfitting operations (Bonjourquebec.com)
- 25 registered traplines are distributed around Lake Kipawa
- 14 shelters (hunting camps) within the perimeter of the area of wildlife interest
- 462 cottages currently around the lake including 84 on rented public land, 359 on private land and 19 occupants without permit or title.
- 319 cottages are found on Laniel's territory and the unorganised territory of Les Lacs-du-Témiscamingue, 8 within the municipal limits of Béarn, 10 in Témiscaming and 126 in Kipawa.
- 241 residences are located on private lots, 1 on leased public land and 1 occupant without permit or title: 77 on Laniel's territory and the unorganised territory of Les Lacs-du-Témiscamingue, 32 in Témiscaming and 134 in Kipawa (MRN, 2010; MRC, 2013).
- 112 vacant lots intended for all types of uses are located around the lake (for building, exploitation, other activities such as public access, electrical control facilities, etc.). These lots have been surveyed before the moratorium and their development for vacationing and outfitting purposes was frozen by the MRN. Should the moratorium be lifted, they should not all be considered as constructible (MRCT, 2013).

All this information is visually represented in **Figure 5**: Distribution of owners, lessees and occupants without permit or title on Lake Kipawa.

The lake was used in the past for log driving.

The industrial and service sectors are served by:

- 1 lease for helicopter landing (Laniel)
- 1 lease for parking purposes
- 8 surface mineral substances sites: gravel pits, sand pits, etc. (abandoned, planned or in operation)
- Mining claims in the central and southeast area (52.3 km²)

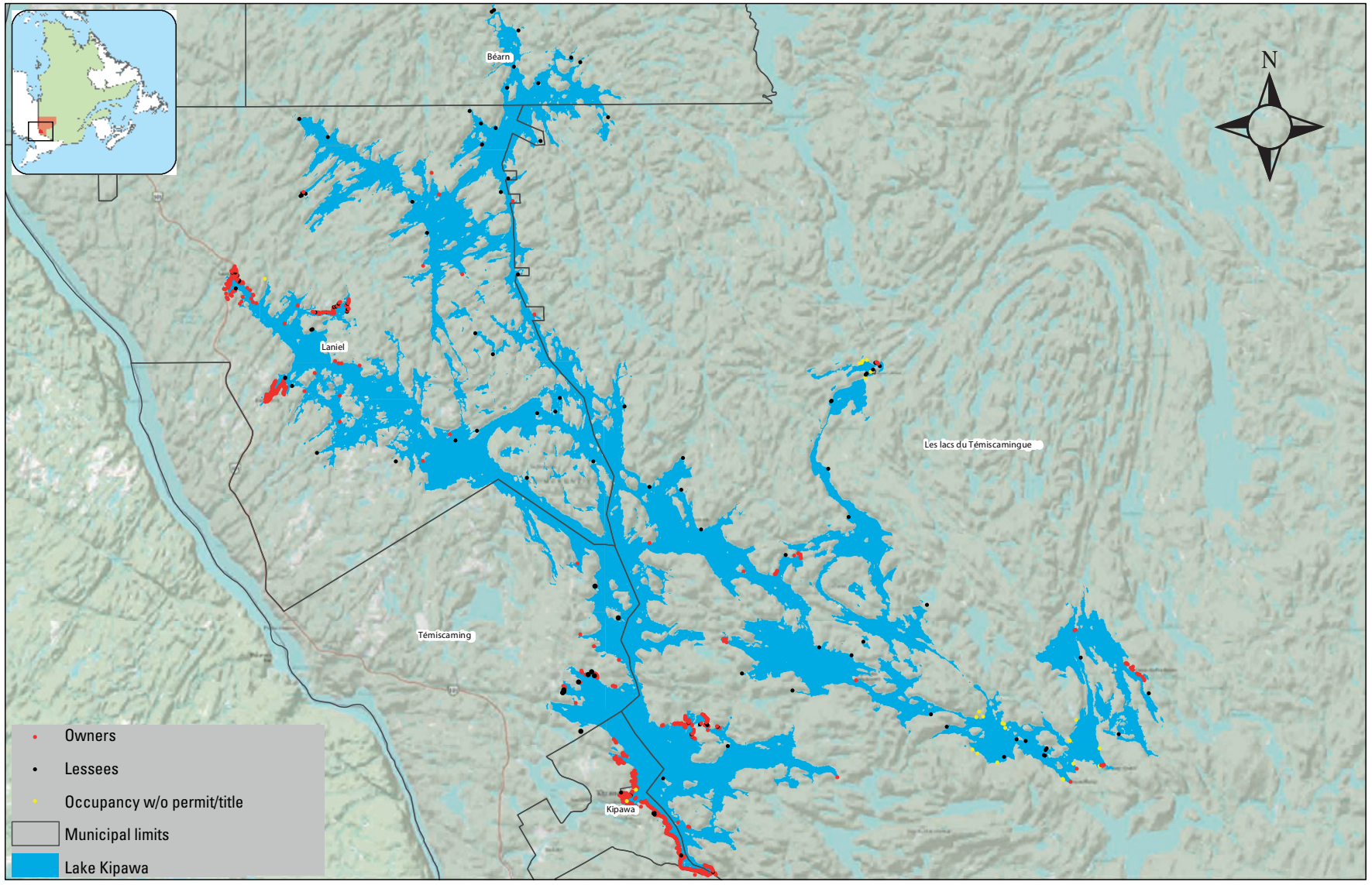

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Figure 5: Distribution of owners, lessees and occupants without permit or title on Lake Kipawa

2013

0 3.25 6.5 13 Km

2.2.2 Land Use *(following)*

Mining exploration projects

Concerning the area's mining potential, Pierre Doucet, a geologist with the Ministry of Natural Resources, provided the following information (personal communication):

- The Zeus project, held by Matamec Explorations, is by far the most advanced; feasibility and impact studies are underway. The preliminary study suggests an open-pit operation of 5072 t of rare earth oxide concentrate per year, over 12.9 years and the beginning of production in the second quarter of 2016. This implementation scenario remains to be confirmed.
- The Lake Sairs project, owned by Fieldex Exploration, is located a few kilometres southeast of the Matamec ore body.
- The Turner Falls project, held by Les Entreprises minières Globex, is located north of the Zeus project.
- The Kipawa West project, held by Mines Aurizon and Forum Uranium Corporation, is located northeast of the Matamec property.

Other projects, such as that of Hinterland Metals, located 30 km west of the Matamec project, are at the stage of very preliminary exploration work.

Other companies and individuals hold claims in the surroundings of these projects, but there is no additional information available.

2.2.3 Zoning of the Riparian Buffer Strip

A zoning of the riparian strips was done by the MRN (Pascal Martel, Patrick Raymond and Daniel Riopel, September 1988, validated in August 2004, updated on February 17th 2014), but only around Lake Kipawa as such (not on the whole area of wildlife interest). The satellite lakes are not included in the zoning; special attention must be paid to the map to see the sampled perimeter, which is different from the area of wildlife interest.

Carried out in compliance with the standards described in the *Guide de développement de la villégiature sur les terres du domaine public* (guide to cottage development on public land) and the PRDTP (regional public land development plan), the lake zoning is a development plan for recreational and tourism purposes for the benefit of the general public. Concretely in the field, the work consisted in assessing the lakeshores' potential by measuring different parameters such as slope, type of soil and vegetation.

For the inventoried area, the preliminary results, which may still be refined in the field, suggest that 88% (in red on the map) of the riparian zone is dedicated to conservation. The rest of the territory may potentially be developed (but no development planned for the time being): 18.64 km² (62.13 km of shoreline, in green on the map) where conditions theoretically allow for constructions (for the land is not too rugged or sloped) and 0.824 km² can be used for public access.

Important note: this potentially manageable linear area is not necessarily intended for constructions or development; the fieldwork simply allowed identifying the favourable zones. Sectors with a recreational and tourism potential were also identified. The percentages are not related to the area of wildlife interest, but they are rather proportions of the territory inventoried through the fieldwork. This information is presented in **Figure 6**: Zoning of the Riparian Buffer Strip (source: MRN, 2004). **Appendix 4** includes the complete report, with conclusions on the number of parcels it represents for development or potential types of development.

In parallel to this zoning carried out by MRN, and following a request by the Consultative Committee, the zoning of the MRC's Development Plan is presented in **Figure 7**: Municipal Zoning (1991-95) under moratorium. Existing residences are also mapped by categories: owners, lessees and occupants without permit or title. This allows comparing the information of both zonings and having a good picture of the area's zoning. On this map, it was not possible to show the zoning on the islands, but they are all zoned as "green": the cottages and outfitting establishments are prohibited. An important caution: the land sections where "cottages and outfitting establishments are allowed" do not mean that development is actually possible since the moratorium applies to them. Furthermore, the MRN map shows conservation areas in this section. To conclude, it must be kept in mind that, should the moratorium be lifted, development will be conditional at many levels (municipalities, MRN, etc.)

Figure 6: Zoning of the Riparian Buffer Strip

Source: MRN 2014

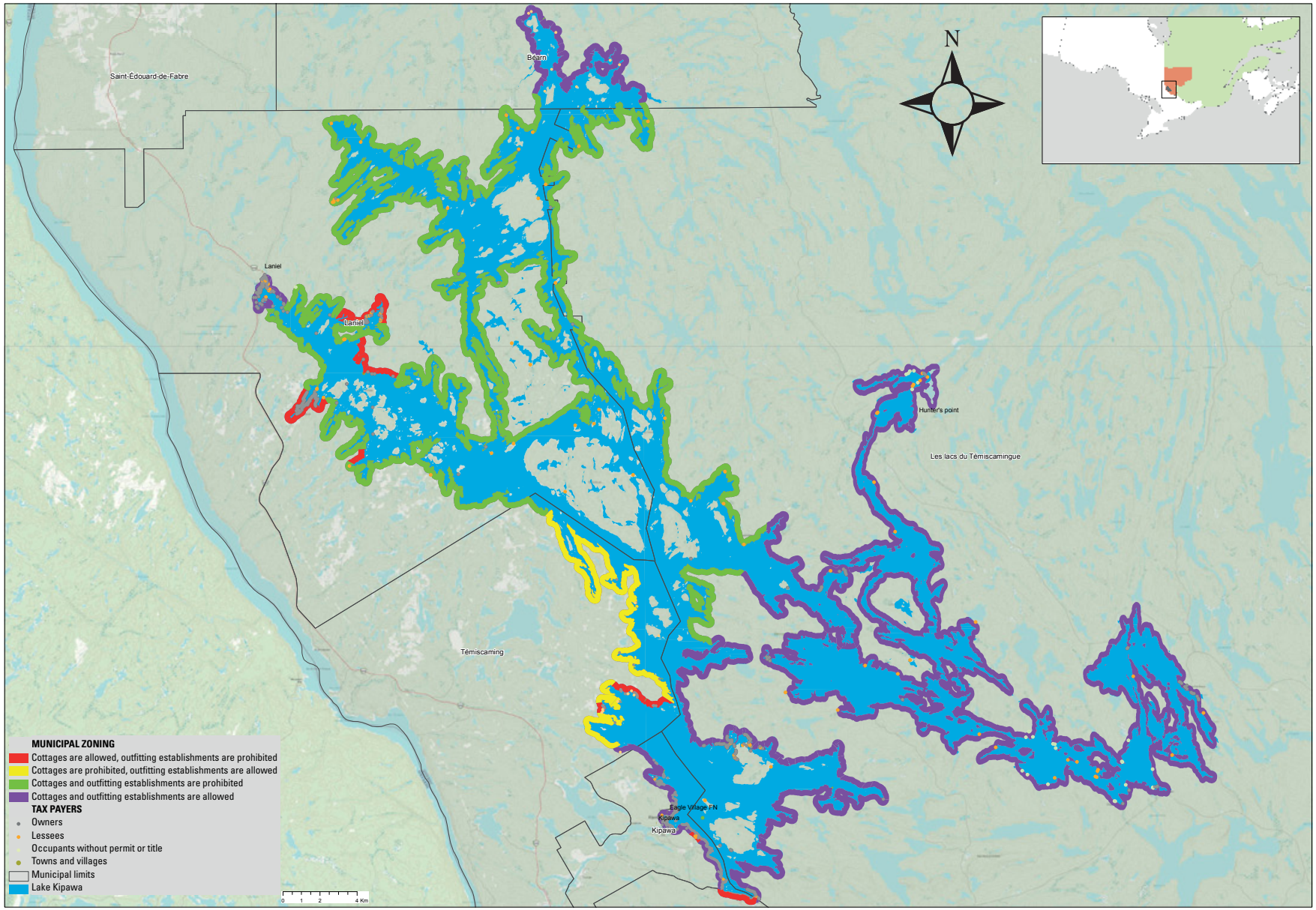

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Figure 7: Municipal Zoning (1991-95) under moratorium

2.3 Public Infrastructures

- 41 places are available for boat anchoring/parking in Laniel: 3 owned by the Laniel Municipal Committee, 9 by Laniel Camping, about ten in water and 20 on ground by La Lucarne outfitting establishment, 9 by contractor Huisman.
- 7 public places are offered free of charge in Kipawa. In addition, there exist a higher and unknown number of private docks (Laniel's Municipal Committee, Municipality of Kipawa, pers. comm., 2013)
- Lake Kipawa has two (2) managed public accesses, the municipal dock located in Laniel and that of Kipawa. In addition to these two accesses, 4 other public launching ramps are known. In the past few years, bush roads built for forest operations have allowed a number of cottagers to access their site. Therefore, certain water accesses are unknown and not inventoried.
- 1 lease for a lookout
- 1 lease for a holiday camp
- 1 lease for a rest area
- 1 lease for a managed camping ground
- 3 leases for picnic grounds
- 1 lease for an entrance kiosk (MRN, 2010, 2013).

2.4 Recreation and Tourism Services and Companies

Tourism related to wildlife and generally to outdoor activities is very important on Lake Kipawa. A building used for community activities and holiday camp is found on the lake. Sites are available to all for recreational, sports or educational activities for non-profit community use, for example, basic camping facilities on Laniel's territory.

Services

Different routes allow practicing outdoor activities at Lake Kipawa; the sections in the area of wildlife interest are the following:

- *Route verte* (Green Road) (3 km), for cycling
- Snowmobile trails (4.3 km)
- Quad trails (9.4 km)
- Cross-country ski trails (1.8 km)
- A stretch of 120 km of canoe-kayak route crosses a number of lakes − McLachlin, Grindstone, Bedout, Audoin and Hunter's Point. This route is recognised by the Fédération québécoise du canot et du kayak (FQCK) and features landscapes qualified as pleasant. Lake Kipawa is identified as a potential site for sea kayak.

Companies

- Houseboat rental
  Houseboats can be rented at Lake Kipawa.
- Algonquin Canoe Company
  This company has a network of portages, trails and camping sites and offers boat rental and guided tours services (Web page, July 2013).
- The services offered by outfitters (total of 21 whose activity is not always known) at Lake Kipawa allow enjoying hunting and fishing as well as escaping to the wilds.
- Surf On School
  This company offers wakeboard, wakeskate, wakesurf courses and guided tours on Lake Kipawa.

2.5 Throughput

Land use for recreation/tourist activities (boating, canoeing, hunting and fishing, in outfitting camps or not, etc.) and the residents around the lake represent the throughput of the water body.

Data on anglers throughput are summarised in the table below.

	YEAR					
	1975	**1982-1984**	**1989**	**1994**	**1999**	**2006**
Number of rod days	28,600	39,043	64,697	38,851	31,692	36,411
ORIGIN	%	%	%	%	%	%
Québec	10.6	24.8	32.5	33	31	30
Ontario	26.4	40.1	41.7	38	30	36
USA	63.0	35.1	25.8	29	39	34
TYPE OF STAY	%	%	%	%	%	%
Outfitter	78.0	72.1	60.0	58	63	48
Cottage	14.0	17.0	22.3	26	18	36
Camping	8.0	6.1	3.8	7	2	3
Day-by-day fishing		4.8	12.9	7	5	5
Houseboat		N/A	N/A	2	12	4

Table 2: Anglers Throughput on Lake Kipawa from 1975 to 2006 (source: Nadeau, D., Trudeau, C., 2012)

An estimate of the lake's total throughput for all types of uses would have been interesting, but the information does not exist on that scale. However, the outfitters' accommodation capacity gives a good indication of the throughput: it is 706 guests per day (FPQ, 2013, personal communication), to which we must add many other occasional visitors.

To have an idea (unofficial data), we could extrapolate the following: on Lake Kipawa in 1999, there were 31,692 rod days; in 2000, there were 1,254,270 rod days spent in Abitibi-Témiscamingue (MRN, 2000; Fisheries and Oceans Canada, 2003). Lake Kipawa therefore accounts for approximately 2.5% of the fishing activity at the regional level.

According to FAPAQ, this is the most important public water body for sports fishing in the region; it would represent a good potential for wildlife development (FAPAQ, 2002).

2.6 Existing Regulatory and Planning Tools

2.6.1 Regulatory Tools

Different regulatory tools already exist to allow regulating activities on Lake Kipawa; however, the extent of their enforcement and compliance is not known:

- A moratorium on private cottage and outfitting development on public lands is in force on Lake Kipawa. This moratorium does not apply to private land. It provides for interim measures to limit development.
- Fishing regulations: a regulatory change in the lake trout and walleye fishing period was adopted, but the anticipated effect was not achieved. The opening period for lake trout is now from the 4th Friday of April to Monday, September 15 or the nearest for the whole province. As for walleye fishing, it is closed from April 1 to the third Friday of May (during spawning season).

Discussions on lake trout size limits, catch and possession limits, catch-and-release and ice fishing are underway (A. Fort, personal communication).

Sustenance fishing practiced by First Nations is not subject to these regulations.

- There exists a regulation on water protection against leisure craft waste in the Environment Quality Act, particularly Chapter Q-2. It provides for heavy penalties in case of non compliance (Éditeur officiel du Québec, 2013). Lake Kipawa is listed in an appendix to the regulation along with three other lakes in Québec.
- A visual and forested buffer zone applies from the shore of Lake Kipawa. This buffer corresponds to the visible landscape based on topography, up to a distance of 1.5 kilometres. On these Crown land parcels, clear cutting would be marginal in the visual landscape zone; partial cuts are allowed and assessed on a case per case basis by MRN and the consulted persons.
- A municipal bylaw also applies, based on the MRCT's development plan, within the limits of Kipawa, Témiscaming, Béarn, Laniel and the unorganised territory of Les Lacs-du-Témiscamingue; its enforcement is under the municipalities' responsibility (D. Dufault, MRCT, personal communication):

Minimum lot size

To be constructible, lots located within 300 metres from the lake must be 50 metre wide, 60 to 75 metre long and have a minimal surface area of 4000 square metres. However, any lot of smaller size and described in a contract prior to 1984, may still be constructible, considering it has an acquired right.

Banks and littoral protection

Provincial regulations, i.e. the Policy for the protection of riverbanks, littoral zones and floodplains, apply. The bank corresponds to a protective strip of 10 to 15 metres around the lake. To sum it up, it must remain in its natural state. Municipalities are mandated to enforce these regulations. In Laniel, boathouses are subject to special roofing criteria (look and harmonisation with the environment). As for docks, only floating, pillared or piled docks are allowed.

Septic system

Cottages and residences bordering the lake must be connected to a personal septic system. In case of environmental pollution by septic spill, the municipality may require the owner to upgrade his septic system to standards.

As for outfitting facilities, they must be connected to a commercial system that is monitored by MDDEFP. Only a certified professional can determine the type of septic system based on soil characteristics.

Restriction to boating

In Dorval, MacAdam and Canal bays, near the heron colony, Clermont and Huard islands, speed is limited to 10 km/h within 30 metres from the shore.

The municipality of Laniel also has special directives mainly aimed at ensuring a year-round residential development on its land. See **Appendix 5**: Main Regulations in Laniel for Residential Development around Lake Kipawa.

2.6.2 Planning Tools

The MRN's PRDTP, recreation/tourism section, provides guidelines and objectives for cottage development on Abitibi-Témiscamingue's public land. This plan indicates that Lake Kipawa is a wildlife territory where cottage development will eventually be permitted but only with a concerted development plan.

The PATP provides guidelines for the interventions of the various actors and defines the government's policy directions for public land use and protection (MRN, 2013, online).

Concerning vacation site development, we can refer to the "guide to cottage development on public land" (MRN, 1994). The guide distinguishes between private, commercial and community vacation sites as well as between dispersed and grouped development or between permanent and temporary vacationing sites. Finally, a distinction is made between waterfront and inland vacation sites (proximity to a lake or river). Different modalities apply to these different categories. Furthermore, the guide mentions that pursuant to the regulations on land zoning on sites intended for waterfront vacation sites, islands less than 10 hectares are excluded from any land subdivision projects for vacationing purposes. These islands are included in the conservation area. Islands of 10 hectares or over can support cottage development, but under certain conditions.

MAMROT has also produced a planning and management guide for cottage areas (Carrier C., 1994)

The MRC de Témiscamingue initiated a pilot project, called *Forêt De Chez Nous*, to develop forest resources in Témiscamingue's local forest. This project was submitted to MRN under the Sustainable Forest Management Act on August 23, 2010. Certain portions could cover the shores of Lake Kipawa.

Approximately 77% of the public section of the area is targeted for forest management up to 2018 as shown in **Figure 8**: Land Assignment for Forest Management Purposes, but discussions and public consultations are still necessary. More specific areas have been targeted for potential silvicultural development in the coming years, and this is also at the discussion stage: see **Figure 9**: Potential Logging Areas up to 2018.

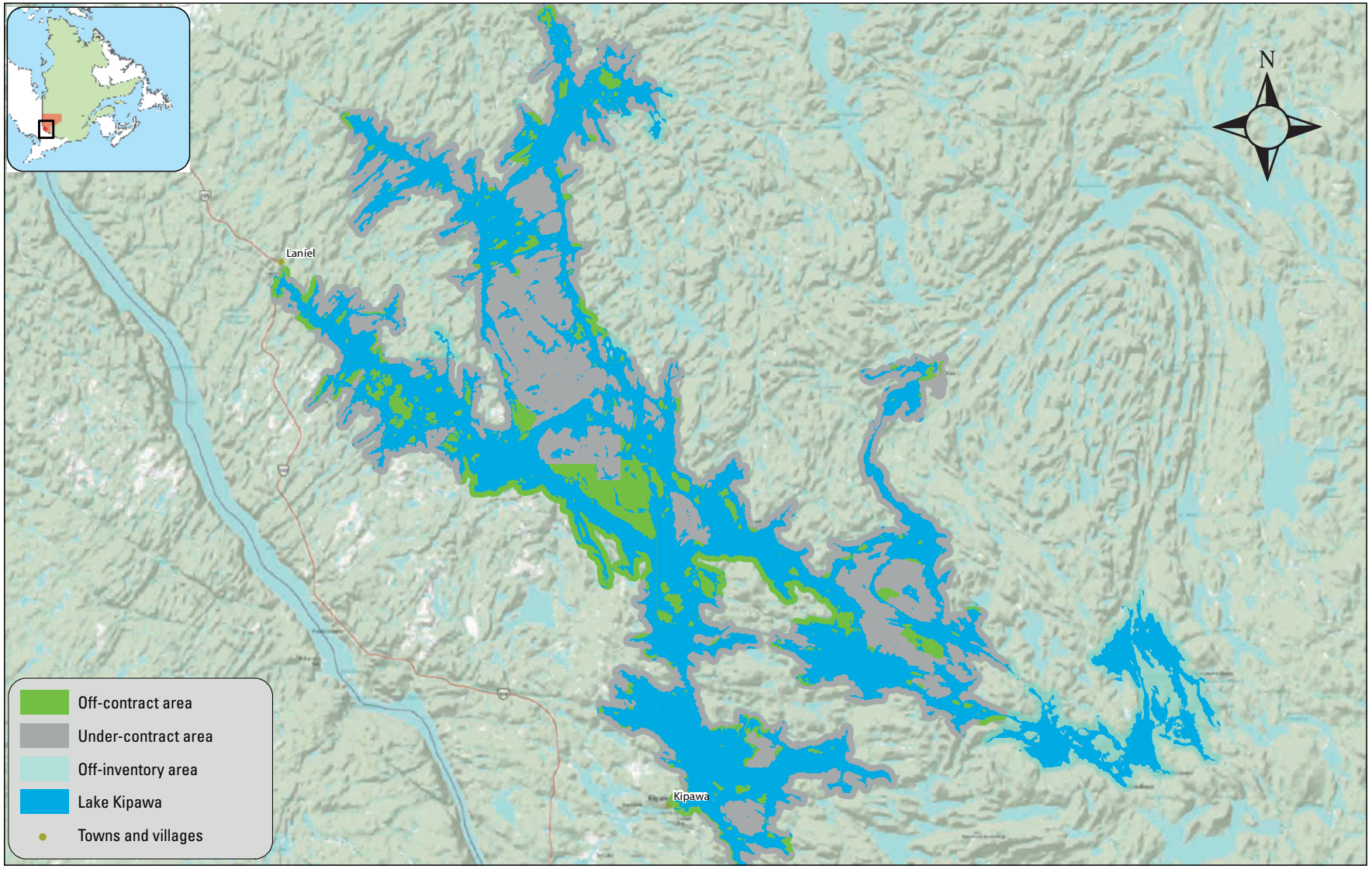
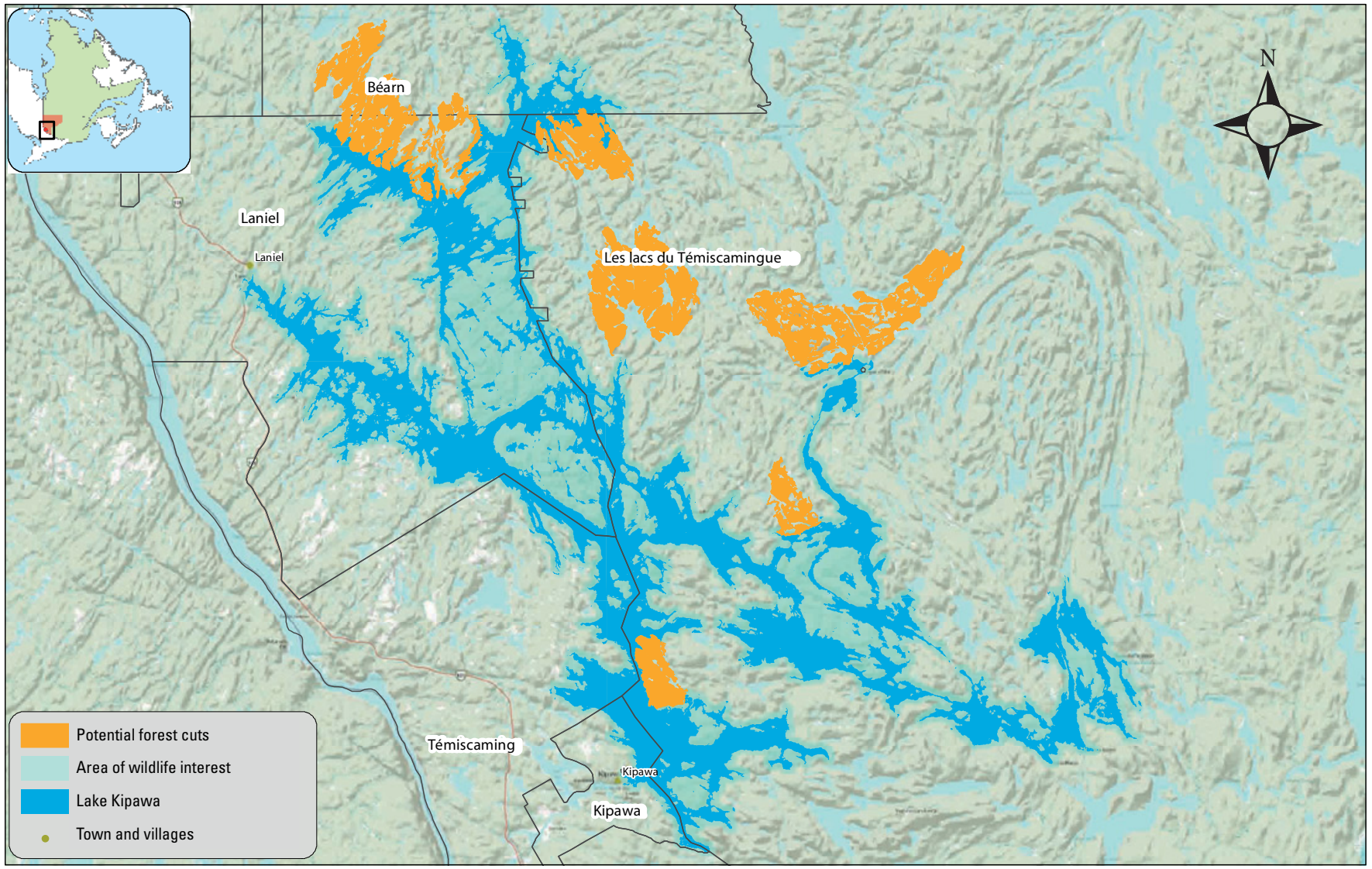


Figure 8: Land Assignment for Forest Management Purposes



MRC Témiscamingue

Figure 9: Potential Logging Areas up to 2018

2013
0 2.5 5 10 Km

2.7 Lake Kipawa Water Quality and Level

2.7.1 Water Quality

Various data on water quality are available for Lake Kipawa, but none focused particularly on this issue for now.

Lake Kipawa's water is generally of good quality and is used as drinking water by the Aboriginal community of Eagle Village, among others (MRN, 2012). However, a decrease in water quality is observed with the presence of blue-green algae officially reported near Kipawa (MDDEFP, 2012) and in MacAdam Bay (MDDEFP, 2013).

Yet, Lake Kipawa is qualified as oligotrophic, i.e. normally poor in nutrients as shown by the composition of the phytoplankton community (Moreau, C., 2005). Water is even qualified as pure and the study area was pollution free (Edwards Pass). There seemed to be no problem with water quality in 1999, transparency was high (approx. 7 metres in certain sectors), pH slightly acidic (6.4), and dissolved oxygen seemed adequate even in depth. Conductivity is about 20 µmhos (MRN, 2012) and dissolved salts are limited (Lamontagne, 1981). In the past years, many riparian owners deplored the decrease in water quality (personal communication). However, there exists no study on phosphorus concentration.

Studies were carried out by MDDEFP (MDDEFP, 2013 and Denis Laliberté, personal communication) on the accumulation of toxic compounds in fish flesh in Lake Kipawa (southwest of Crow Island, McLaren Bay, Lake Bedout).

In 2010 and 2011, the mean mercury content exceeded MDDEFP's directive of 0.5 mg/kg for lake trout and yellow walleye. In lake trout, content was slightly higher than the median content for the whole province and similar to the median content in yellow walleye.

Based on these concentrations, recommendations are made for consumption of these species based on fish size (for example, it is recommended to eat a maximum of 4 walleyes 30-40 cm long per month with this level of mercury content).

The mean arsenic content in lake trout is slightly higher than that of the Chibougamau area (region of reference for metals). The mean content for other metals in lake trout and yellow walleye is approximately the same as in that region.

In 2011, the mean content in PCB, PBDE (polybrominated diphenyl ether) and toxics equivalent to 2,3,7,8-TCDD in lake trout (1.1 ng/kg) are considered as low.

A pilot project carried out by the OBVT in the municipality of Kipawa (Baie-de-Kipawa Road and Miwapanee Road, 2012) showed that 60% of the observed septic systems (on a total of 37 systems for 260 waterfront cottages and residences) are in a worrying state or are a source of direct contamination. In this same study, it was determined that the state of the riparian strip of more than 60% of visited residences was composed of less than 40% of natural vegetation and was therefore generally in poor condition.

A lot of work remains to be done to determine whether all cottages and residences have septic systems and whether these systems are in good operating condition. Riparian strips should also be monitored.

The municipality of Laniel has the only pumping station in operation for Lake Kipawa, which is an interesting service and rarely offered in Québec. Located at the municipal dock, it costs $ 30 per boat wastewater disposal.

2.7.2 Water Levels

The dams of the Kipawa reservoir are operated by the Centre d'expertise hydrique du Québec (CEHQ). CEHQ is an agency of the Ministry of Sustainable Development, Environment, Wildlife and Parks. Furthermore, given the complexity of the Ottawa River watershed and the numerous operators, the river is managed in an integrated way through the Ottawa River Regulation Planning Board (ORRPB), made up of representatives from the Canadian, Ontario and Québec governments. The Commission's mandate is to establish the general principles, priorities and policies for the main reservoirs in the watershed and to implement them. A secretariat was also formed and it constitutes the Commission's executive arm as well as the Coordination Centre for issues concerning the management of the Ottawa River Basin. The operational arm of the Board is the Ottawa River Regulating Committee (ORRC). The Committee members are employees of the Canadian, Québec and Ontario governments, Ontario Power Generation and Hydro-Québec. The Committee is responsible for the operation of the reservoirs while respecting the general policies established by the Board (A. Bilodeau, personal communication).

The annual drawdown (difference in water level) is approximately 2 metres. This is a very delicate situation as it involves various conflicting interests: water level management for the whole Ottawa River watershed, lake trout spawning, water level for boats and docks, shoreline erosion. Table below shows a summary of requirements.

REQUIREMENT			
	Dam managers	**Lake trout**	**Boat - docks**
SPRING	Low level in early spring, then raising the level to absorb spring flood	Mean level	Mean level
SUMMER	Mean level	Mean level	Mean level
FALL	Raising the level to have reserves for winter	Low level to avoid spawning in areas to be later uncovered and possible raise of level after fish eggs have been laid	No lowering of level to allow boats to go out (optimal navigation level: 269.5 m)
WINTER	Lowering the level for hydroelectric supply and in anticipation of spring flood	No lowering of level below the elevation reached during spawning	N.A.

Table 3: Summary of Requirements for Lake Kipawa Water Level

A general summary of CEHQ's water management is presented in Table 4 below (Andrée Bilodeau, CEHQ, 2013):

MANAGEMENT INFORMATION	
GENERAL	
	The Kipawa reservoir management objectives are to provide protection against flooding, maintain water level for recreation and regulate water for hydro-energy production.
	The Kipawa reservoir is one of the main reservoirs of the Ottawa River Basin and is the subject of integrated management by the Ottawa River Regulation Planning Board (http://rivieredesoutaouais.ca).
	The water levels of the Kipawa reservoir and flows of the Kipawa River and Gordon Creek are available on the CEHQ website http://www.cehq.gouv.qc.ca.
WINTER	
	During winter, the reservoir is emptied gradually in anticipation of spring flooding. This drawdown ensures the safety of people upstream and downstream of the dam and also allows to regulate water for hydro-electric energy production.
SPRING	
	In the spring, we gradually reach the level of 269,50 m for the start of summer season while minimizing downstream flooding.
SUMMER	
	During the summer season, we maintain the water level between 269,50 m and 269,55 m. During flood periods, we aim to stabilize the water level between 269,50 m and 269,75 m.
FALL	
	In the fall, the Lake level may drop below 269,50 m which allows greater flexibility in the management of fall rain events. In early December, before the drawdown, the target levels is around 269,50 m.

Table 4: General Information on Water Level Management in Lake Kipawa (CEHQ, 2013)

The summary of levels reached during the year was produced by the CEHQ; levels were relatively constant throughout the years:

LEVEL	DATA	COMMENTS
Drawdown target:	267.60 m	Drawdown level reached an average before the start of the freshet.
Minimum summer operation level:	269.50 m	
Summer operation level:	Between 269.50 m and 269.55 m	
Maximum operatio level:	269.75 m	Maximum water level target during freshet.
Discharge – Kipawa River	**Data**	**Comments**
Minimum discharge:	15 m^3/s	Aquatic habitat constraint.
Minor flooding threshold:	300 m^3/s	At this flow, a field and a garage belonging to a local resident are affected.
Discharge – Gordon Creek	**Data**	**Comments**
Minimum discharge:	10 m^3/s	The gates of the Kipawa dam are left at a constant opening to provide this flow.
Minor flooding threshold:	28 m^3/s	Minor flooding threshold in the municipality of Kipawa.

Table 5: Summary of Water Levels Controlled by CEHQ at Lake Kipawa (CEHQ, 2013)

The optimal navigation elevation is 269.5 metres; below that level, docks are no longer in optimal operating condition.

Negotiations efforts were made between MRN and the *Direction des barrages publics* (Public Dams Branch) to try and reach an agreement. The level reached during the lake trout spawning is 40 cm lower than the usual level, which corresponds to the level of a strong drawdown situation. This would prevent fish from laying their eggs too high up the bank (spots that are then exposed in winter, causing the loss of eggs by freezing). This situation could be monitored to determine to what extent this fall drawdown change can promote reproduction.

2.8 Habitats to be Protected and Sites of Interest

2.8.1 Forest Habitats

An exceptional forest (Lake Kipawa's ancient forest, Hemlock-yellow birch forest) is adjoining Lake Kipawa to the south, at the Latour Bay level.

A descriptive sheet of the PATP (public land use plan) was produced for the proposed exceptional forest ecosystems of Abitibi-Témiscamingue (zone No. 08-009). Twenty-nine (29) sites are found across the region for a total of 18.7 km² and a sector of Turtle Island on Lake Kipawa is part it. The objective is the total protection of these exceptional environments.

Islands less than 250 ha are automatically excluded from timber allocations. The largest ones are also excluded for now, essentially for operational reasons. However, these potential logging areas remain part of the Forest Management Units; they could therefore be harvested should the strategies change.

2.8.2 Sites of Wildlife Interest

Particularly sensitive zones are to be excluded from the zoning plan (MRN, 2013):

- Spawning grounds (lake trout, yellow walleye, northern pike); details are provided in s*ection 2.10 State of Faunal Populations;*
- Prey birds (3 bald eagle nests and 1 peregrine falcon nest).

Concerning the bald eagle, a 700-metre protection zone ensures the nest's protection (integral 300 metre protection zone and 400 metre buffer zone).

No forest management activity is allowed within the integral protection zone. Activities are allowed in the buffer zone from September 1 to March 15, i.e. outside the species' nesting period. However, these activities must exclude the construction of permanent infrastructures (roads, buildings, etc.).

As for the peregrine falcon, a species at risk, an integral protection zone of 250 metres on each side of the nest on the whole height of the rock wall or escarpment and a 50-metre strip from the limit of the slope break up and down the rock wall or escarpment must be respected. Additionally, there is a 100-metre buffer zone surrounding the integral protection zone. No forest management activity is allowed within the integral protection zone.

Activities are allowed in the buffer zone from September 1 to the end of February, i.e. outside the species' nesting period.

- A heron colony on Lake Kipawa is also legally protected (MDDEP, 2012) to ensure the sustainability of this breeding site. It is also listed in a PATP descriptive sheet, zone No. 08-011 among 29 other sites in the region.

It is mentioned that the wildlife habitats present an interest for bird watching and that they must be respected.

2.8.3 Peatland

The PATP description mentions 2 km² of peatland in zone 08-048, representing 0.3% of its surface area. The exact location is not mentioned and this figure is an indication only.

2.8.4 Sites of Archaeological Interest

According to MRN, the area offers an archaeological potential (7 known archaeological sites), but we have no additional information on the location, surface area or the type of archaeological resources. Precautions must be taken if development takes place in the area, but for the time being, no random digs have been planned. (Mathieu Beaudry, personal communication).

2.8.5 Cultural Sites

An Aboriginal burial site and a church are found in Hunter's Point. To this day, we obtained no information on the existence of other cultural sites.

2.8.6 Beaches

Many beaches of different sizes are found around the lake, but they have never been accurately mapped. So we do not know about their condition and accommodation potential.

2.9 State of Plant Populations

Lake Kipawa belongs to the Southern Laurentians natural region, bioclimatic domain of the sugar maple-yellow birch forest (MDDEFP, 2011).

A complete description of vascular plants was done as part of an inventory done for the proposed Opémican National Park (MDDEFP, 2011).

We will mention only the floristic elements of interest to the extent that they represent issues for the Management Plan and can be located on the lake's wildlife territory.

A total of 10 species likely to be declared endangered or threatened have been inventoried.

LATIN NAME	ENGLISH NAME
Arethusa bulbosa	Dragon's mouth
Astragalus australis	Indian milkvetch
Boechera retrofracta	Reflexed rockcress
Ceanothus herbaceus	Prairie redroot
Elaeagnus commutata	Wolf-willow
Gratiola aurea	Golden hedge-hyssop
Lathyrus ochroleucus	Cream-coloured vetchling
Platanthera blephariglottis var. blephariglottis	White fringed orchid
Polygonella articulata	Northern jointweed
Utricularia geminiscapa	Hidden-fruit bladderwort

Table 6: Floristic Species Likely to be Declared Endangered or Threatened in the Opémican National Park (Source: Dignard, 2010)

2.10 State of Faunal Populations

2.10.1 Birds

Species needing protection nest in the lake area: peregrine falcon, bald eagle and great blue heron (see paragraph 2.8.2 in the *Sites of Wildlife Interest* section).

An inventory was carried out as part of the *Atlas des oiseaux nicheurs du Québec* (Quebec nesting birds atlas) in the surroundings of the municipality of Kipawa: common nighthawk [(1)], chimney swift [(1)], olive-sided flycatcher[(1)] and rusty blackbird [(2)] have the following status: [(1)] - *Likely to be declared* in Québec, *Endangered* in Canada; [(2)] - *Likely to be declared* in Québec and *Special concern* in Canada (Sylvain Giguère, Environment Canada, personal communication).

2.10.2 Amphibians and Reptiles

Prospection work was carried out in search of herpetofaunal species (Environment Canada, 2010) on the Algonquins' ancestral land with Louis-Philippe Dénommé. Potential sites for Blanding's turtle and wood turtle were identified, but no individuals were observed.

Painted turtles and snapping turtles were seen or captured as well as many amphibians. None of these has a protection status except for the snapping turtle that has a *Special concern* status across Canada. For certain species, the geographical location represents the limit of the species range.

2.10.3 Fish Populations

The most interesting species for sports fishing are lake trout, yellow walleye and northern pike. Many pike spawning grounds were identified by the MRN in the shallow waters of the islands. Other species are also present: lake herring, lake whitefish, perch, sucker, common catfish, smallmouth bass and burbot (MRN, personal communication). Lamontagne mentioned 18 species from 9 families. The latter are important as forage species, but also for fishing to a lesser extent. In the early 20th century, commercial fishing was practiced on Lake Kipawa, mainly for yellow walleye and whitefish (Lamontagne, 1981).

We have good knowledge on Lake Kipawa's fish populations for it is part of the provincial lake monitoring network.

For information, a theoretical optimal harvest was assessed in 1975 (Lamontagne, 1981): 33,963 kg (Rounsefell formula) or 44,615 kg (Ryder formula) for the whole lake. Even though no longer valid today (specialist Daniel Nadeau considers it as overestimated, personal communication, 2014), these figures remind us that there exists a limit below which fish populations cannot reproduce naturally.

A problem raised is the barotrauma phenomenon: Literature reports that the impact of rod fishing on fish survival may be significant due to barotrauma. This phenomenon occurs mainly when fish are pulled from deep water and brought very quickly to the surface; swim bladders are squeezed and this compromises their survival in case of release (Faculty of fishing, 2013). Public education needs to be done, but injuries caused by fishing hooks are certainly more damageable (A. Fort, personal communication).

A study was conducted to answer these questions and this particular one: is it justified to ask anglers to release their catch if the mortality rate is too high?

There seems to be no effect of the catch depth on lake trout survival and the general mortality is in the order of 10% of the individuals. Catch and release is therefore justified for this species. Wounded fish, particularly in the gills, clearly have fewer chances to survive (Nadeau and Lapointe, 1991).

2.10.4 Lake Trout Situation

Lake trout is a salmonid broadly distributed in North America. It particularly enjoys cold (10°C), clear and well oxygenated water (MRNF, 2012).

In Lake Kipawa, lake trout has long been part of the most appreciated species for sports fishing. But fishing and all the demographic factors related to the species (late sexual maturity, reproduction on shores subject to drawdown, etc.) have made the populations more fragile. Its popularity was such that the species was designated as overharvested in its whole range in the 1980's.

Year	1982-84	1989	1994	1999	2006	2009	2010	2011	2012
Number ok lake trout harvested	12,600[1]	26,300[1]	5100[1]	2800[1]	1018[1]	1758[2]	1991[2]	1683[2]	2070[2]

Table 7: Lake Trout Harvested in Lake Kipawa (1: MRN, 2012 total sports fishing. [2]: MRN, 2013, personal communication, represents only lake trout harvested in outfitting operations)

Source 1 *is the estimated harvest by total sports fishing while* ***source 2*** *represents only the lake trout fishing in outfitting operations.*

The situation remains a concern and harvesting must be controlled and reasonable.

Other factors such as changes in the fish community or the habitat are also affecting lake trout. The most recent estimates for Lake Kipawa show that the number of sampled adults is low, but the immature individuals are well represented (following stocking): the situation should improve in the coming years when immature individuals reproduce, provided that the eggs are not affected by drawdown. (Nadeau, D., 2008).

Stocking programs were carried out in 1992: 37,500 fry or 34% of the stock, 94: 33,500 or 37%, 96: 14,000 or 12% and 98: 42,300 or 50% (MRNF, 2012). The success of these campaigns will ideally be known in the coming years. The MRN is considering a new recovery plan, possibly this time with fish from outside the lake (A. Fort, personal communication).

2.10.5 Yellow Walleye Situation

Yellow walleye is part of the second group of most popular fish for sports fishing after the salmonid group.

Nadeau and Trudeau (2012) reported that the different catch size adjustment measures (> to 32 cm after 1999) and a good population recruitment allow the latter to be still abundant today. The reproductive potential seems to be sufficient to ensure the stock's self-perpetuation.

However, in recent inventories, a majority of fish were small size. Harvesting is responsible for a 50% mortality rate, which is clearly higher than the allowable maximum under these latitudes (38%).

Recruitment is ensured only by a limited number of spawners, which makes the stock vulnerable in case of disturbance (poor climate conditions, low larvae survival rate, for example). According to the authors, the current harvesting rate seems too high.

3. PORTRAIT OF INDIVIDUAL CONCERNS

Two means allowed the public and stakeholders to express their concerns regarding the proposed development of Lake Kipawa:

- Consultation workshops during the public information meeting (approximately 100 participants)
- Online survey (**Appendix 6**), 140 respondents

Furthermore, the population and the stakeholders have communicated directly with the project manager.

An online petition (http://www.change.org/petitions/minister-of-natural-resources-quebec-protect-kipawa-lake) seeks to maintain the moratorium placed in the 1980' and to oppose the rare earths and hydro development projects. It allowed focusing the fears towards the rare earths project (2647 signatures as of January 21, 2014). These fears reflected the concerns expressed by a number of citizens and they are therefore mentioned in the concerns found in this section.

3.1 Concerns

Concerns may be broken down into 11 groups of ideas and 44 subgroups from an initial number of 284.

- Land occupancy
- Invading species
- Water level
- Water quality
- Fish
- Fishing
- Maintaining quality
- Protection
- On-going project follow-up
- Post-project
- Other

The main groups of ideas are detailed below:

MAIN GROUPS OF IDEAS	SUBGROUPS OF IDEAS
Land occupancy	Risk of limiting access to the land by privatising and losing one of the last major public water body
	Regularise the Lake Grindstone situation
	Unauthorised cottages, including where recorded projects were already planned
Invading species	Have more information (zebra mussel and others)
	Preventive control to avoid their introduction
Water level	Priority action on this point
	Impacts on fish populations
	Level control (supervised by local people)
	It causes erosion
	Current levels are not consistent with population's needs.
Water quality	Need to maintain and ensure compliance of septic systems and install new compliant ones in new constructions
	Need for emptying and cleaning stations for boats
	Protect the whole watershed to preserve water resources
	No additional use as it would pose a threat to water quality
	Monitor quality
	Need to have shoreline buffer strips (important role of municipalities).

MAIN GROUPS OF IDEAS	SUBGROUPS OF IDEAS
Fish	Need for additional and innovative protection measures
	Decrease of already fragile populations, avoid additional pressure
	Drawdown effect
Fishing	Overfishing, including the use of nets: to be controlled
	Maintain and restore fishing quality: maintain stocking programs, resolve drawdown problems, impose new limits for fish size and quota, catch-and-release
	What will happen with ice fishing?
Maintaining quality	Keep the lake as it is now: beautiful, quiet, natural, wildlife supportive, sufficiently accessible and visited, with its Aboriginal richness, no additional hunting and fishing, maintain the moratorium's positive impact
	Be able to maintain current activities (swimming, fishing, exploring, water-skiing, etc.)
	Avoid mistakes made on other lakes that lost their initial quality
	Protect this important canoeable waterway (notably between Lake Temagami and Lake Dumoine)
	Increased supervision by wildlife officers.
Protection	Protect fauna and flora, the environment, landscapes and the whole ecosystem, leaving no ecological footprints
	Protect beauty, quietness
	Protect against deforestation, overcutting and replant trees after harvesting
	Protect the lake against pollution
	Enforce current regulations
On-going project follow-up through regular communication on the project and providing updates to the general public.	
Others	Visual and noise pollution
	Regulate boating on the lake and in marinas for safety purposes. For example, regulate speed and enforce regulations
	Avoid unfair competition by cottage owners against outfitters
	Fight against tax increase
	Enhance relations with Aboriginal people
	Inform the public and the actors on the lake's condition
	Improve knowledge on the local environment
	Develop a short and long term management plan
	Anticipate and manage the increasing demand, considering the proximity with Ontario and the national park
	Take into account the operation of gravel and sand pits in the study area
After the project, efforts will need to be made to involve the population including after January 31, 2014.	

Table 8: Concerns regarding Lake Kipawa

3.2 Reasons for Refusing Development

From the 130 suggestions, 8 of these reasons for opposing development emerged, with 16 rationales.

- Adverse effect on lake's integrity and quality of life
- Negative impacts
- Against industrial development (mining, hydro development, etc.)
- Against cottage rental
- Maintaining the lake as is now
- Against Opémican Park
- Against outfitting development and commercial development
- Against vacationing sector development

REASONS TO OPPOSE DEVELOPMENT	RATIONALES FOR REFUSING DEVELOPMENT
Adverse effect on lake's integrity and quality of life	The lake will no longer be what it is now if developed
	Current beauty of the lake makes it attractive
	Preserve quietness, low number of users, limited traffic (road and waterway) and fishing at current levels
Negative impacts More development could result in...	Traffic increase
	Increased wood cutting
	Decreased or increased property value (depending on beneficial or detrimental land development)
	Overfishing and illegal fishing trade
	Pollution causing decrease in water and air quality
	Decreased lake popularity (ensured by low development)
	Development of new camping grounds would adversely affect the existing one.
Against industrial development (mining, hydro development, etc.) that could threaten water quality and lake viability.	
Against cottage rental that causes unfair competition to outfitters.	
Maintaining the lake as is now.	
Against Opémican Park.	
Against outfitting development and commercial development: there is already enough and a number of outfitters can hardly make it.	
Against vacationing sector development (including Aboriginal): would put pressure on lake, water, fauna and flora.	

Table 9: Reasons for Opposing Lake Kipawa's Development

3.3 Type of Development Considered

A total of 74 development ideas are considered and they were broken down into 10 main groups and 27 modalities.

- Development
- Development based on outdoor activities and respect for nature
- Development in already developed sectors
- Fish farming development
- Limited and controlled development
- To be developed for boating
- Other type of development
- Positive impact on the economy
- Legislation
- Compliance

MAIN GROUPS OF IDEAS FOR DEVELOPMENT	MODALITIES
Development of new building lots	Develop because it's impossible to build in ZECs and parks
	Give access to new lots
Development based on outdoor activities and respect for nature	Lake Kipawa could become a preferred destination for hunting and fishing
	Create a park with the whole lake
	Maintain the lake's history
	If there is development, it must respect nature and even try to enhance its value.
Development in already developed sectors: Kipawa, Laniel, Dorval Bay, MacAdam Bay, Lake Grindstone.	
Fish farming development	May represent a solution for certain people, for example, by using fishing license fees for funding.

MAIN GROUPS OF IDEAS FOR DEVELOPMENT	MODALITIES
Limited and controlled development	Implement rules and develop in accordance with legislation (compliance ensured by MRC and MRN)
	Develop with limited number of projects per year
	Develop 10 to 20 cottages in 50 sectors
	Develop an additional 10-20%, that's all
	Develop at least at a distance of 500 metres from camping or portage sites
	Improved reception facilities by opening public beaches, avoid privatising everything, implement quality recreational infrastructures
	Control the purchase of outfitting businesses by individuals, promote controlled commercial development, based on what already exists (reinforce outfitting facilities, among others)
	Develop progressively and supported by the necessary infrastructures (roads, garbage pick-up, sceptic tanks, etc.)
	Develop to be able to take care of the lake and avoid its deterioration
	Create an independent organisation mandated to ensure the protection and monitoring of the environment's quality
	Manage economic spinoffs with a welcoming attitude towards people and not by developing constructions
	Control access to hunting and fishing and develop in collaboration with First Nations
To be developed for boating	Washing and pumping/emptying stations
	Other islands developed to accommodate boaters and canoeists
Other type of development	Hotels, restaurants, canoe and kayak rental
	Commercial sector
• Positive impact on the Témiscamingue economy that needs it	
• Legislation: toughen up the laws on septic tanks and other effective legislations at Lake Kipawa	
• Ensuring compliance of illegal housing units	

Table 10: Type of Development considered for Lake Kipawa

3.4 Problems to be Resolved before Developing

At the public consultation meeting and then through the survey, 4 important problems were identified and must be resolved before proceeding with development.

- Stabilise water level before any further development
- Be informed on tax rate changes, risk of seeing residents' tax increase if new infrastructures are built (roads, power lines, etc.)
- Document the current situation and find solutions to current problems before considering new developments
- Implement control measures and regulate sewers and pollution.

4. GROUP CONCERNS

4.1 Municipalities

Béarn: Luc Lalonde
No answer.

Laniel: Yvon Gagnon
The president of Laniel's Municipal Committee, Mr Yvon Gagnon, speaking on behalf of his fellow citizens, summarised their concerns as follows:

Drawdown tests could allow reaching levels more consistent with the needs.

As for fishing, the new regulations proposed by the Department should be decided with the outfitters to maintain the interest of clients and other users. These regulations must be respected. The impact of net fishing must be better documented. Finally, logging should be monitored more rigorously.

Tourism development could be a good opportunity if it is controlled to avoid reaching too high a density (for example, number and capacity of outfitting facilities must not be excessively high).

Residential and vacationing development should be left to the municipalities' discretion. Harmonising regulations between municipalities for shoreline development and septic tanks must be part of the management plan.

Kipawa: Norman Young
The mayor of Kipawa, Mr Norman Young, summarised the concerns of his fellow citizens as follows:

The health condition of Lake Kipawa is not presently at its best and yet, it's a real treasure. We need to make a good assessment of its current condition in order to plan for the future.

We need to look at Lake Kipawa as a rich asset to be preserved and not as an opportunity for revenues. It's important to promote tourism.

The future of the lake's users depends on its healthy condition; if it deteriorates, many sectors would suffer (municipalities, industries, Aboriginal communities, etc.). The choices we make at this time are crucial.

Consulting and providing advice to local residents is an important process to be developed by government authorities.

Témiscaming: Philippe Barette
The mayor of Témiscaming, Mr Philippe Barette, summarised the concerns of his fellow citizens as follows:

The consensus to be reached is allowing development, desired by many, without adversely affecting the quality of one of the 10 most beautiful lakes in Québec. A loss of quality would result in a decrease in Lake Kipawa's monetary and environmental value. Development can't be undertaken before developing a good knowledge of the territory and resolving existing problems.

It's important to ensure public awareness and education of all users on how to behave to preserve the resource.

4.2 Environmental and community sector

Environmental association: Association pour l'avenir des ressources Témiscamiennes, Johanne Descoteaux

The environmental sector, supported by Johanne Descoteaux, is of the opinion that it's not possible to take a position now on the relevancy of any type of development. It's preferable to document the existing problems and identify the unknown factors. Determining what type of development would be possible would allow providing a more informed opinion.

We absolutely need to avoid a form of development that would result in a loss of Lake Kipawa's many qualities. Knowing that there are already existing problems, it seems difficult to consider more development. The precautionary principle is a must if we want to be able to develop our resources without threatening them.

Shoreline owners association: Henri Laforest

As the shoreline owners associations' representative, Henri Laforest shared many of his group's concerns:

The price of land has skyrocketed in the past decades, which leads to the repurchase of property by people from outside the region.

Development must not be detrimental to the lake's quality and must be well organised.

Compliance with regulations must be monitored by municipalities.

Users association: vacationers and Témiscaming-Kipawa Chamber of Commerce: Daniel Goulet

After having consulted his nautical recreation company's clients, many of Lake Kipawa boaters and residents, Daniel Goulet presented the following concerns:

The implementation of riparian buffer strips and the preservation of the landscape (against deforestation for example) are essential.

According to this group, when we talk about development, we can't just say yes or no:

Yes to the development of marinas equipped with pumping stations, public beaches with wharfs and washrooms, stopovers all around the lake with minimum camping services (washrooms, etc.)

No to the development of new residences for the time being (if such development in the future, make sure to have strict standards). Before initiating new real estate projects, make sure that current residents respect certain criteria: septic fields, shoreline buffer strips, maximum of two wharfs per property so as not to disfigure the landscape.

No to the mining project that does not reflect the idea of preserving water quality.

For the Témiscaming-Kipawa Chamber of Commerce, also represented by Danierl Goulet, development that could have beneficial impacts on the economy is desirable. Mining and other development projects are acceptable only if they are nature and environment friendly. Comprehensive studies must be completed prior to each project.

Fédération des Chasseurs-pêcheurs: Gino Lafrenière

No answer.

Citizens:

- **Claude Bérubé**

As a citizen and frequent user of Lake Kipawa, Claude Bérubé agreed with many concerns already expressed.

The priority to focus on is water quality.

Actions and projects must be well prioritised to avoid being overwhelmed.

- **André Lapierre**

As a citizen, André Lapierre said that the important thing is to preserve the quality of the water, which is threatened by human and industrial activities.

Obsolete sceptic tanks and the use of two-stroke motor vehicles are threats to water quality while there should be no industrial activity at all near the lake.

It would be important to improve the current situation and control it before going ahead with new developments (which must be sustainable, if this is the case).

- **Clyde Mongrain**

As a citizen and member of the Aboriginal community of Eagle Village, Clyde Mongrain believes that the massive arrival of residents from outside the territory and the province is a problem, particularly when they don't want to follow the rules in place. Causing problems and then leaving cannot be excused without financial penalties.

He described many cases where existing rules were bent. The rules must be better enforced to limit abuse (fishing beyond quotas, tree cutting for private use, etc.).

He mentioned that there is a difference between Aboriginal and non Aboriginal people which is still not recognised.

- **Thomas Mongrain**

As a resident of Kipawa, Thomas Mongrain is mainly concerned by the fish resource: fishing by individuals and First Nations is not the main problem (the latter fish mostly walleye and pike, and lake trout to a lesser degree); it's the outfitters who threaten the fish populations the most.

There is a real problem of relations between First Nations and non Natives.

Concerning the potential development, the Department of Natural Resources can oppose development carried out in the wrong places. If there is development, tourism and camping grounds are desirable, but no new cottages.

- **Karen Kowalchuk & Stephen Kilburn**

As owners and users of the lake, Karen Kowalchuk and Stephen Kilburn greatly appreciate Lake Kipawa's preserved biological quality and quietness.

Everything that could have an impact on the existing qualities and characteristics is a concern for them.

There is a need to have more knowledge in order to make good decisions on what can possibly be done for the lake; existing standards must also be respected. Public education and awareness are of prime importance.

4.3 Economic sector

Outfitters (economic and tourism sector): Yves Bouthillette

After having consulted many outfitters on Lake Kipawa, but also clients, Mr Bouthillette summarised the economic sector's opinion as follows:

We must not proceed with development before current problems are resolved, and they are many. One example is the impossibility for outfitters to purchase the lots where their facilities are located while they sell to non residents.

Wildlife remains the priority as well as the natural environment on and around the lake.

Fight against water, visual and noise pollution.

If there is development, it should be done by consolidating the existing tourism infrastructures before anything else (including the outfitting facilities).

Development must be done with a guarantee of sustainable and environmentally friendly development.

It is high time to set up a group (committee or association), dedicated particularly to Lake Kipawa, that could be the preferred interlocutor with specialists, among others.

Tourism: Simon Laquerre - Dany Gareau

From a tourism perspective, Lake Kipawa is an underdeveloped treasure that is one of the 10 most beautiful lakes in Québec. It must be protected from pollution (gas, non-compliant residential septic tanks, etc.), overfishing, negative impacts of drawdown and industrial development, to name a few.

Development is possible, but based on recreation and tourism (companies and the future Opémican Park represent a good support rather than starting new projects). It should be centralised under an official entity (Community Wildlife Area, for example). Allowing the largest number of people (local and visitors) to discover Témiscamingue and the Lake Kipawa area would promote a better knowledge and, consequently, its conservation. Concerted management is desirable as well as the development of adventure tourism.

Industrial sector: Claude Brisson

Matamec Explorations wished to summarise its involvement in two main points:

For the time being, Matamec is proposing a mining project that won't go into production before 18 to 24 months, which allows the public to clearly understand the project and to conduct a complete environmental assessment.

Matamec will try to limit the project's impacts as much as possible and, in return, the positive effects could be many: for example, studies on the knowledge of the territory that will be made available, funds available for the rehabilitation of obsolete septic facilities or houseboat pumping stations. The economic benefits for the MRC in the form of property tax could immediately benefit the region.

Témis-accord Chamber of Commerce: Robin Larochelle

The region's development is important, but must not result in wasting resources.

The mining project is a concern, but if it goes ahead, it must respect the environment and allow investing funds for the lake's protection.

Existing septic facilities must be made to comply with regulations and the new ones should be strictly monitored.

Real estate development must benefit the residents and not people from outside the province.

4.4 Aboriginal Communities

Before taking part in the process, the Aboriginal communities of Eagle Village, Wolf Lake and Timiskaming have made public a Statement of Asserted Aboriginal Rights and Title (Algonquin Nation, 2013). The following paragraphs summarise the content of this Statement with a view to presenting as accurately as possible the issues and concerns of these Algonquin communities.

The document is intended to set out the evidence that these three communities are all descended from the Algonquin Bands who traditionally used and occupied a territory that includes Lake Kipawa since time immemorial, thus justifying their claims to land titles and rights.

According to the document, these communities have never surrendered their rights and titles, which therefore continue to exist to this present day.

They deem necessary to give their free, prior and informed consent before any development activities within these traditional territories take place.

Their fear towards Lake Kipawa's potential development is to see the lake's resources and quality threatened for ever (personal communication).

The lake is the main source of drinking for the First Nation community of Eagle Village.

The Hunter's Point Aboriginal settlement and the Indian reserve of Kebaowek are enclaved in the zone.

The Aboriginal community members use the area to practice the traditional activities.

In parallel to their rights and titles claim, the Aboriginal communities of Eagle Village and Wolf Lake (and Timiskaming First Nation) sent a letter to the different ministries, MRCT and OBVT submitting, among others, their concerns (Chief Harry Saint-Denis (WLFN), Chief Madeleine Paul (EVFN), September2013).

The table below sums up the concerns and causes presented by these communities:

CONCERN	CAUSE
Spawning Site	Cottage development near spawning sites
Spawning site	Water level fluctuation
Water Quality	Invasive species
Water Quality	Loss of shoreline habitat
Water Quality	Outdated septic systems
Fish Stocks	Over fishing by sports users
Water security	Toxic spills from proposed Matamec site

Table 11: Concerns of the Eagle Village and Wolf Lake (and Timiskaming) First Nation communities, September 2013

5. SUMMARY OF ISSUES AND CONCERNS

In this section, we will review the issues at stake to better identify the impacts based on literature and experts' reports. For each theme, the concerns expressed in the consultation are presented. However, let us keep in mind that there exist current problems that are not addressed for the time being and that there are sometimes information gaps (non existing data).

Four (4) main themes encompassing all the issues:

- Permanent and Seasonal Residency
- Fishing and fish Populations
- Pleasure boating and use of Lake Kipawa
- Commercial and Industrial Activities

5.1 Permanent and Seasonal Residency

This section takes into account the issues and concerns related to permanent housing (residences) and private vacationing infrastructures (seasonal cottages for example). To sum it up, any type of construction on the shores, except for outfitting operations and other businesses, which will be addressed in the *Commercial and Industrial Development section.*

5.1.1 Documented Issues and Problems Raised

Year-round residents and seasonal population:

The year-round residents and seasonal population live in a total of 243 residences and 462 cottages within the 300-metre riparian strip. With the available data, it is impossible to determine whether the lake's support capacity has been reached. This being said, the recent occurrence of blue-green algae in the lake could indicate a deterioration of the water quality possibly caused by vacationing.

Occupants without permit or title are found in many places. This occupancy and its impacts must be taken into account.

Potential residential development:

On private land:

- **RED PINE CHUTE**

Land adjoining Red Pine Fall were transferred to Commonwealth Plywood at the turn of the last century to allow for the implementation of a sawmill and infrastructures for employees and operations. Consequently, this land was owned by the company who developed 40 constructible lots. Other sites might also be sold in the southwest sector of Red Pine Fall.

- **LANIEL**

In Laniel, some lands belong to real estate promoter Jolatem and they are located within the urban perimeter. 18 lots were up for sale and some of them are still available (approximately 10 in May 2013).

On public land:

- **KIPAWA**

The municipality of Kipawa has a residential development project since 2011 that would consist in extending Kipawa Road and laying out 16 lots for residential development on public land.

There seems to be a total of 100 vacant lots within the 300-metre shoreline of the Lake Kipawa Concerted Management Plan. Few details were provided as to what end these lots would be used: there are no buildings, but the lots are not necessarily available; they may be used for various purposes (MRCT, 2013).

Documented and likely impacts of residences and cottages

The management, follow-up and upgrading to standards of the residences' and cottages' septic systems are important elements to consider for they may represent a source of water pollution. For future development, septic tanks should comply with the regulatory requirements. Very little information is available on the condition of the residences' existing septic systems around the lake except for surveys by the municipality of Kipawa indicating that a majority of septic systems are of special concern (OBVT, 2012).

Cottages may also have an impact on the riparian strip, which must be kept in good condition for various reasons:

- Protect water and aquatic ecosystems (riparian buffer strips are a good water filter, they limit algae proliferation, help maintain water transparency, stabilise the banks, etc.);
- These strips act as an interface between the aquatic and terrestrial environments, and they promote biodiversity;
- Abundant riparian strips are a guarantee of landscape quality.

Information on the state of riparian strips in already inhabited sectors is not available except for the Kipawa sector where most of them have been highly artificialised and are therefore in poor condition from and environmental and landscape perspective.

The occupation of new lots may encroach upon sites of significant archaeological value or of interest to First Nations, which sites should be identified in advance and preserved. This occupancy must also take into account the other available local data (spawning grounds, threatened species, etc.).

Finally, an increase in vacationing/cottages would necessarily mean increased throughput and use of the water body in certain sectors with the potential impacts discussed in the *Fishing and Fish Stocks* and *Pleasure Boating and use of Lake Kipawa* sections.

5.1.2 Concerns

People have diverging concerns regarding housing. Some say that development should be halted and the moratorium maintained because any development would be detrimental to the lake's protection and its main attraction which is its low occupancy. Others say that development is possible and demand is real, but there must be no impact on the natural environment. In all cases, harmonised management is necessary for the lake as a whole.

Many people are of the opinion that septic tanks, riparian strips, type of constructions, landscape maintenance, assurance of not causing visual and sound pollution are all parameters to be rigorously monitored.

An important factor would seem to be managing the increased impact that would result from these potential new constructions. Boats, docks, polluting emissions are all factors that were mentioned. Furthermore, certain people are concerned about the development of new building lots for they would become private and therefore inaccessible to a majority; this could also result in a property tax increase.

Another concern is competition by people renting their cottages versus outfitters who have higher standards. For some, it is the municipalities' responsibility and jurisdiction to decide on desirable development.

5.2 Fishing and Fish Populations

5.2.1 Documented Issues and Problems Raised

The state of fish stocks was described in a previous section: *2.10 State of Faunal Populations*, but it is worth repeating that it is a major issue for the lake. We can sum up the issue by saying that the fish stocks, and more particularly the popular sports species, are intensively harvested since the beginning of the 20th century.

Many actions are currently being assessed to improve fish stocks, including changes to fall drawdown and additional monitoring measures for fishing.

Documented and likely impacts

Many issues influence fish populations and consequently the available stocks for fishing. Water levels influence fish stocks, particularly lake trout. The introduction of invasive exotic species and poor water quality are also potential threats to fish stock and fishing quality.

Pressure exerted on fish is obviously too strong on certain species. However, it represents a true attraction for the lake, which confers a lot of importance to fish populations.

An increase in fishing would necessarily mean an increase in the lake's users throughput with the potential impacts discussed in the *Pleasure Boating and Use of Lake Kipawa* section.

5.2.2 Concerns

Many of those who expressed their view on this matter believe that fish stocks are overfished, which could be detrimental to the anglers' interest. Anglers are of the opinion that fish populations are decreasing in both number and size. For others, Lake Kipawa could become a preferred fishing destination and this asset could be enhanced.

Certain respondents believe that fishing activities and collateral impacts on both fish and the environment (introduction of invasive exotic species, pollution by boats, etc.) should be monitored. Water levels are incompatible with anglers' expectation. A number of anglers wish to maintain ice fishing. Other lake users fear the effect of fishing that could cause visual and sound pollution.

To ensure a consistent management, a water body must be managed from a global perspective.

5.3 Pleasure Boating and Use of Lake Kipawa

5.3.1 Documented Issues and Problems Raised

Lake Kipawa is renowned and used by people coming from outside Québec (Ontario, USA and, to a lesser extent, Europe). These people are to be taken into account in the discussions leading to the Action Plan because all activities may have an impact on the lake's protection and also represent a potential economic generator.

Documented and likely impacts

The growing use of Lake Kipawa is a factor in the introduction of invasive exotic species, changes in the lake's quietness, waste production, water pollution or simply an increased pressure on the natural environment.

The existing boat launching ramps are partly unknown and one of the challenges is to control these infrastructures, to equip them with septic disposal systems and washing stations. There are no boat washing stations in Témiscamingue and only one septic disposal unit on Lake Kipawa (Laniel). Without these facilities, it is common to observe pollution by boats and the proliferation of undesirable species.

5.3.2 Concerns

A number of people wish recreotourism to be supported through a better access to quality infrastructures. The Opémican National Park offers an opportunity, but infrastructures are required on the whole lake, according to these respondents. Many said that development could take the form of an increase in environmentally low-impact recreotourism. There are many possible uses for visitors: boating, canoe-kayak, surf, etc., but each one has impacts people are concerned about.

A number of users are concerned about the introduction of invasive exotic species, visual and sound pollution and pollutants in general (waste, oil, gas, etc.). During the consultations, certain people complained about the negative impact of water levels on these activities.

Concerted management of all these activities is necessary for the whole lake.

5.4 Commercial and Industrial Activities

5.4.1 Documented Issues and Problems Raised

Mining activities

Matamec is assessing the feasibility of mining a rare earth deposit southeast of Lake Kipawa. The prospect of exploiting this type of lowly mined mineral in North America causes concerns about the impact it could have on the environment (radioactive potential, landscape, dust emission, water quality (surface and underground), use of water volumes for processing, waste rock treatment, truck traffic, etc.).

Claims and exploration activities by many companies are present near the lake and could result in more mining operations.

Forestry

Forest cuts are planned around Lake Kipawa and MRN now takes into account landscape preservation based on an established protocol.

Hydro-electricity

The development of two mini hydro-electric power stations was considered on the lake's outlets. The aboriginal project in Kipawa (approx. 45 MW), on Gordon Creek (a follow-up will be done by the editor during the year 2013), as well as Hydro-Québec's Tabaret project (approx. 145 MW) on Kipawa River, which was abandoned. The potential impact would be mainly on the rivers as such, but would not be absent on Lake Kipawa. Levels may be affected by the use of a minimum flow for the power stations operation.d'un débit minimum pour le fonctionnement des centrales.

Opémican National Park

The National Park was officially commissioned in March 2013; it ensures a strict protection combined with recreotourism development generating economic benefits on an area of approximately 250 km².

Outfitting development

With 21 outfitting operations and a 706-place accommodation capacity in 126 camps, the Lake Kipawa outfitters generate economic benefits and tourist traffic. Requests are made by the outfitters to increase their accommodation capacity (MRN, personal communication), which was prohibited by the moratorium. Should this possibility materialise, it would increase tourist traffic and fishing on Lake Kipawa with the above mentioned impacts.

Documented and likely impacts

If not adequately controlled, each commercial and industrial activity may have a major impact on the environment, including water quality. Consultations and consideration for social acceptance are provided for in the procedures of industrial projects. As for commercial projects, the choice must be rational and take into account the impact it will have on the lake.

5.4.2 Concerns

Many citizens have concerns about the potential effects of commercial and industrial activities (see petition) and, in certain cases, they categorically refuse them. A significant concern emerged from the consultations regarding industrial activities. Many choose to bluntly oppose industrial development while others wait for evidence that any negative impact can be limiter or avoided.

A number of respondents look forward to commercial development and see an opportunity for regional economic development. Others do not want commercial projects to be detrimental to the natural and social environment.

Harmonised interventions at the lake scale are necessary.

6. VOCATION OF LAKE KIPAWA

Following the different consultation phases (consultation meeting, survey, petition, specific meetings, consultative committee), and with the approval of the Consultative Committee, the vocation unanimously agreed upon for Lake Kipawa is as follows:

"Lake Kipawa is a body of water with exceptional characteristics that should be preserved. No development on the Lake should affect the integrity, quality and long term preservation of this body of water. Actions should be put forward to adequately know and manage present and future problems."

This wording allows highlighting three major points:

- Lake Kipawa is a jewel of nature
- It must be preserved
- A number of problems need to be resolved

Approved and adopted by the Consultative Committee, this vocation statement is the starting point to determine the objectives and the message to keep in mind in defining the lake's future.

7. OBJECTIVES FOR LAKE KIPAWA

Each objective was classified under the theme it referred to; sometimes, the same objectives are found under several themes (for example: develop awareness, educate and build up accountability; this objective is found in both pleasure boating and fishing). There is no priority order in the following tables; numbering is used for easier reading.

It is important to keep in mind that the objectives as well as the ensuing actions (section 8. *Actions for Lake Kipawa*) have no decisional value. The Consultative Committee has no legal influence as this is beyond the scope of its mandate.

7.1. Management Structure

It appeared that a management structure would be essential to ensure the implementation and monitoring of Lake Kipawa's concerted management and preservation.

OBJECTIVE	OUTCOME
1. Implement a management structure for Lake Kipawa	Consensus

Table 12: Concerted Objective for a management structure for Lake Kipawa

7.2. Habitation permanente et saisonnière

OBJECTIVES	SUB-OBJECTIVES	OUTCOME
2. Improve water quality to reduce blue-green algae occurrences	Ensure close monitoring of blue-green algae occurrences and document pollutant sources that promote them	Consensus
	Enforce current housing regulations (septic tanks, riparian buffers, docks, etc.)	Consensus
	Develop awareness, educate and build up accountability of lake residents	Consensus
3. Ensure consistency with First Nations regarding housing management		Consensus
4. Apply regulations for occupants without permit or title just as for other users of the territory		Consensus
5. Maintain current moratorium for a 3 to 5 year period to allow collecting more information on the current state of the lake and implementing solutions to remedy problem situations		Consensus, except for the moratorium period (3 or 5 years, 3 years minimum); this period may need to be reconsidered.
6. Ensure consistency between private and public land		Consensus

Table 13: Concerted objectives for Permanent and Seasonal residency

7.3. Fishing and Fish Populations

OBJECTIVES	SUB-OBJECTIVES	OUTCOME
7. Avoid and control invasive exotic species		Consensus
8. Document sustenance fishing and take it into account in fishing management		Consensus
9. Ensure fair cost-sharing regarding fishing monitoring and management (by visiting and resident fishermen)		Consensus
10. Develop awareness, educate and build up accountability of fishermen		Consensus
11. Increase fish stocks to a level that can support sports fishing (rehabilitation of lake trout populations, fishing quality improvement and protection of yellow walleye spawners)		Consensus
12. Adjust water level management to reduce impact on fish populations		Consensus
13. Maintain water quality to sustain fish	Take into account the activities on Lake Kipawa watershed	Consensus
14. Increase fishing activity monitoring (wildlife officers)		Consensus

Table 14: Concerted objectives for Fishing and Fish Populations

7.4. Pleasure Boating and Use of Lake Kipawa

OBJECTIVES	SUB-OBJECTIVES	OUTCOME
15. Increase knowledge on lake users and uses		Consensus
16. Avoid and control invasive exotic species		Consensus
17. Develop awareness, educate and build up accountability of users		Consensus
18. Maintain current quietness in high residential and use areas		Consensus
19. Improve water quality to reduce blue-green algae occurrences		Consensus
20. Monitor lake use increase to limit impact on water quality and quietness	Encourage low-impact pleasure boating activities (ex.: canoeing, kayaking, sailing)	Consensus
	Promote the use of camping grounds, outfitting establishments or existing managed infrastructures	Consensus

Table 15: Concerted objectives for Pleasure Boating and Use of Lake Kipawa

7.5. Commercial and Industrial Activities

OBJECTIVES	OUTCOME
21. Prohibit commercial or industrial activities that could deteriorate the lake's water quality, aquatic environment, landscape or quietness	Consensus
22. Limit the impact of current commercial and industrial activities within the 300-metre strip and prohibit new activities	No consensus because some believe that it is possible to allow certain projects, but others do not want any mining, forestry and other activities. These diverging positions are reflected in action 20 and 21.
23. Avoid promoting hydro development projects	No consensus, the related action reflects it clearly.
24. Maintain moratorium on outfitting and cottage infrastructures development (i.e. permanent structures, excluding camping grounds): no new infrastructures and current accommodation capacity	Consensus conditional to outfitters being able to meet the demand for diversified recreotourism and not limiting their services to hunting and fishing (the Management Committee will validate any chage in the situation)
25. Ensure the operation and compliance of existing outfitting establishments	Consensus

Table 16: Concerted objectives for Commercial and Industrial Activities

7.6. Aboriginal Demands

- Preserving spawning sites
- Lowering the fishing quotas for sports users since the 1990 Supreme Court of Canada Sparrow decision confirmed a priority use for Aboriginal food fishery.
- Local management of water level during critical spawning periods and egg development periods.
- Installation of a boat washing station. The money collected to be used specifically for management of Lake Kipawa.
- Stricter and enforced rules and regulation on maintenance of shoreline and septic system.
- Regulate to minimum distance to build from the water's edge.
- Maintain moratorium for new cottage development by non-Algonquins until such time as existing cottages and septic systems are up to legal standards.
- A joint Canada-Algonquin Environmental Assessment should be undertaken of the proposed Matamec Project (EVFN & WLFN, Sept. 2013).

8. ACTIONS FOR LAKE KIPAWA

This section presents the results of the Consultative Committee's proceedings following the determination of the objectives. An action was assigned to each objective. The non-consensus objectives were also translated into actions, which are presented separately as the evaluation of their importance by the Consultative Committee members assigned a value of 0 "Disagree". Technical sheets were developed by the OBVT as tools related to a few of these actions.

8.1. Cross-cutting Actions

ACTIONS	Order of IMPORTANCE according to the Consultative Committee	Potential IMPLEMENTATION BODIES
1. Design, produce and disseminate awareness development tools for the public and visitors (water quality, invasive exotic species, fishing and fish populations, boating) by 2017 [3] ***Explanation of Action 1:*** *This action has a very structuring effect and involves many aspects. Carefully read every word of the action statement.*	5/14	Coordination by OBVT and search for partners
1.1. Develop or use awareness development tools by 2016		
1.2. Disseminate awareness tools in the field: awareness development activities, signs at boat launching ramps and on the lake, distribution of pamphlets, etc. by 2017 ***Explanation of Action 1.2:*** *The awareness tools can be disseminated to the public and users by one or several stakeholders to be determined, but also by outfitters to their clients; pamphlets would be distributed in outfitting lodges, local businesses, etc.*		
1.3. Create shore owners associations in sectors where they do not exist by 2017		
2. Develop a sampling and monitoring plan for water quality and invasive exotic species by 2015 [4]	4/14	OBVT, MDDEFP (coordination)

Table 17: Cross-cutting actions for Lake Kipawa

8.2. Management Structure

ACTIONS	Order of IMPORTANCE according to the Consultative Committee	Potential IMPLEMENTATION BODIES
3. Secure a resource person assigned to maintaining a committee in order to ensure the project follow-up and the action plan implementation by 2014 [5]	2/14	MRCT or other
3.1. Propose a review of Lake Kipawa zoning plan with this committee	9/14	MRCT or other

Table 18: Management structure for Lake Kipawa

[3] *A technical sheet related to this action is in appendix*
[4] *A technical sheet related to this action is in appendix, sampling and monitoring should be on invasive exotic species in a first time*
[5] *A technical sheet related to this action is in appendix*

8.3. Permanent and Seasonal Residency

ACTIONS	Order of IMPORTANCE according to the Consultative Committee	Potential IMPLEMENTATION BODIES
4. Implement a monitoring and compliance strategy for all shoreline residences (sceptic tanks, shoreline buffer strips) by 2016	1/14	MRCT and concerned municipalities
4.1. Develop a compliance and monitoring strategy by 2014		
4.2. Produce a complete status report on the condition of septic tanks and shoreline buffer strips by 2015 ***Explanation of Action 4.2:*** *The status report covers 705 cottages and residences*		
4.3. Ensure the upgrading of septic systems considered as polluting or of concern within a five year period following the status report		
4.4. Develop linkages with First Nations for the residences monitoring and compliance strategy by 2016		
5. Reassess the relevancy of the moratorium towards cottage development (permanent and seasonal residency) following the recommendations of a Management Committee by 2017 ***Explanation of Action 5:*** *The moratorium would apply to permanent and seasonal residences (corresponding to private vacationing) and on public land only.*	11/14	Positionning by the MRCT, decision by the MRN
6. Enforce regulations upon occupants without permit or title by 2017	8/14	Positionning by the MRCT, decision by the MRN
7. Propose to the MRC and municipalities additional control measures for vacationing on private land by 2017, taking into account the spirit and intent of the Concerted Management Plan regarding development [6] ***Explanation of Action 7:*** *This action would apply at least within the 300-metre buffer strip*	9/14	OBVT, MAMROT

Table 19: Actions for Lake Kipawa – Permanent and Seasonal Residency

[6] *A technical sheet related to this action is in appendix*

8.4. Fishing & Fish Populations

ACTIONS	Order of IMPORTANCE according to the Consultative Committee	Potential IMPLEMENTATION BODIES
8. Assess the relevancy and feasibility of creating a Community Wildlife Area (CWA) [7] by 2014 that would pursue the following objectives, among others: • Charge a fair fee to local and visiting anglers • Ensure fishing surveillance and control • Rehabilitate lake trout populations through control measures (ex.: stocking, prohibition of winter fishing, all-out catch-and-release, etc.) and improve yellow walleye populations by imposing for example a protected size bracket. • Enhance knowledge of fish habitat in Lake Kipawa and implement artificial facilities if necessary • Specific awareness efforts on the impacts of fishing and fish stock status • Promote Lake Kipawa as a quality fishing destination	9/14	OBVT, MRCT
9. Should the CWA prove not to be an option, define in collaboration with a management committee the necessary actions to achieve the fish management objectives of a CWA	6/14	MDDEFP
10. Document the effects of modifying the fall drawdown on lake trout populations and adapt the measures if necessary. Furthermore, hold annual meetings between the *Centre d'expertise hydrique du Québec* and a management committee on this matter	5/14	MDDEFP (Wildlife and CEHQ), municipalities
11. Meet with First Nations to assess subsistence fish harvesting and be able to integrate them into fishing management by 2016	10/14	MDDEFP

Table 20: Actions for Lake Kipawa – Fishing & Fish Populations

[7] *A technical sheet related to this action is in appendix*

8.5 Pleasure Boating and Use of Lake Kipawa

ACTIONS	Order of IMPORTANCE according to the Consultative Committee	Potential IMPLEMENTATION BODIES
12. Conduct a survey on lake users by 2017	13/14	MRCT, SDT
13. Install buoys to reduce speed and number of users in residential or high-use sectors by 2017	14/14	Municipalities, MRCT
14. Allow project development for pleasure boating activities provided they are well supervised and in agreement with a management committee (ex.: Marina [8] with pumping station and infrastructures allowing to obtain the Eco-marina certification)	8/14	MRN, municipalities, MRCT
15. Select boat launching ramps to be prioritised, equip them with septic pumping stations and incite people to use these ramps in priority by 2016	3/14	MRCT, municipalities, MRN
16. Evaluate the control measures for houseboats and ensure their enforcement by 2016	4/14	Undetermined
17. Promote low-impact boating activities ***Explanation of Action 17:*** *Activities to be promoted could include canoe-camping circuits, canoe/kayak rental on the lake, outdoor clubs, promotional campaigns, etc.*	12/14	SDT
18. Install at least one boat washing station and implement incentive measures to use it by 2015	7/14	MRCT, OBVT
19. Assess the feasibility of making boat washing mandatory by 2017	6/14	MRCT, municipalities

Table 21: Actions for Lake Kipawa – Pleasure Boating and Use of Lake Kipawa

[8] *A technical sheet related to this action is in appendix, this sheet includes boat launching ramps of actions 15*

8.6. Commercial and Industrial Activities

ACTIONS	Order of IMPORTANCE according to the Consultative Committee	Potential IMPLEMENTATION BODIES
22. Maintain and apply the moratorium to outfitting establishments and cottage accommodation companies ***Explanation of Action 22:*** *The moratorium would apply to new infrastructures, but also to the accommodation capacity of existing infrastructures. This action applies to both outfitting establishments and companies offering accommodation in permanent infrastructures (cottages and others, excluding camping facilities)*	11/14	MDDEFP, MRN
23. Draw a profile of the outfitting establishments active on Lake Kipawa by 2015.	7/14	FPQ, MDDEFP
25. Implement a control and compliance strategy for commercial buildings (septic tanks, buffer strips) by 2016	2/14	MDDEFP, municipalities, MRCT
25.1. Develop a compliance and monitoring strategy by 2014		
25.2. Prepare a complete status report on septic tanks and buffer strips by 2015 ***Explanation of Action 25.2:*** *The status report applies to 126 outfitting camps.*		

Table 22: Actions for Lake Kipawa – Commercial and Industrial Activities

8.7. Non-consensus Actions

ACTIONS	Order of IMPORTANCE according to the Consultative Committee	Potential IMPLEMENTATION BODIES
20. Refuse new industrial projects within a 300-metre buffer strip ***Explanation of Actions 20 and 21:*** *There was no consensus on these actions.*	No order of importance for these actions (non-consensual)	MRN
21. Control industrial activities in order to minimise their impact ***Explanation of Actions 20 and 21:*** *There was no consensus on these actions.*	No order of importance for these actions (non-consensual)	MRN
24. Refuse hydro development projects ***Explanation of Action 24:*** *There was no consensus on this action.*	No order of importance for these actions (non-consensual)	MRN, MDDEFP

Table 23: Actions for Lake Kipawa – Non-consensual actions

8.8 Explanation of Results Following the Evaluation Exercise

As presented in **Figure 10**, which groups all the answers (13 participants, 26 actions), a very high proportion of the actions are rated from important to very important for the Consultative Committee members who participated in the exercise (nearly 80% of the choices on the scale range from "important" to "very important" in relation to the actions).

16.3% of the choices are "more or less important", which represents the median choice on the scale.

1.2% of the choices are in the "not important" or "slightly important" level of the scale.

The 3.8% "disagree" are related to the 3 actions that did not reach consensus (actions 20, 21 and 24). The option of being able to check "disagree" had a value of 0, which clearly reduces the value of the concerned actions. We must therefore abstain from jumping to the conclusion that these actions are not important for certain participants, they are rather non-consensus based.

In light of these results, it is important to keep in mind that they were collected to provide an indication to the decision-makers, and that no action is unimportant as they all result from the consultation process, each one reflecting an expressed wish of the community. Conversely, the actions that came out as more important should not overshadow the others which will perhaps be applicable on the longer term, but that are as relevant as the more important ones.

The number of participants (13) does not allow for a broad variability between the answers. As a result, many actions are separated by a low number of answers, but their classification appears very different.

See **appendices 7 and 8** for details

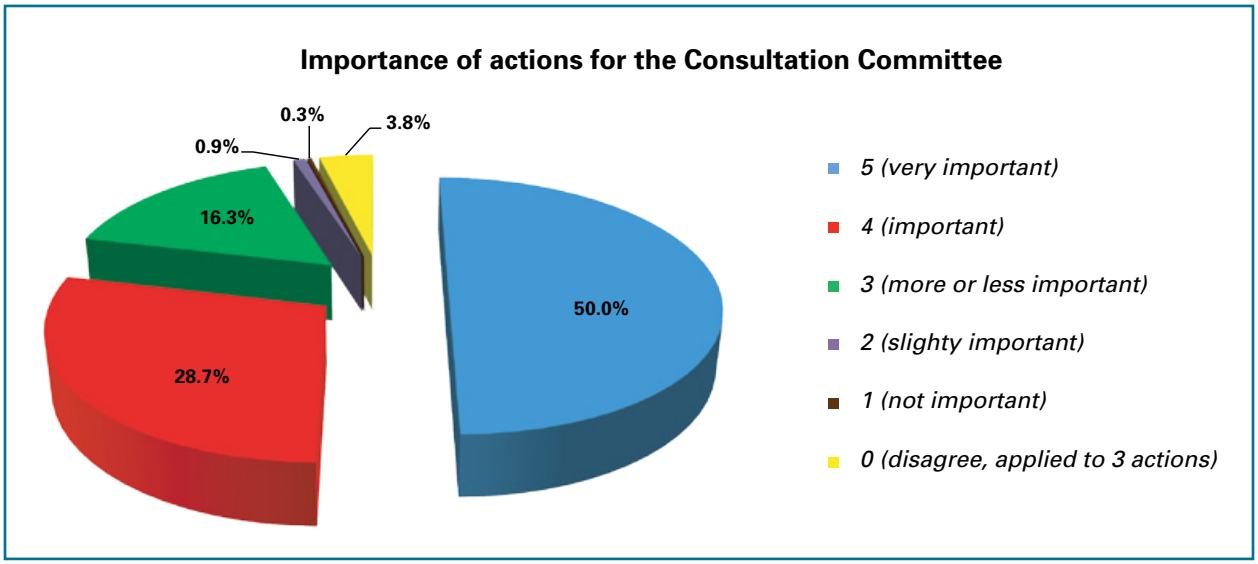


Figure 10 : Graph representing the importance of actions for the Consultative Committee

9. CONCLUSION AND PERSPECTIVES

The Concerted Management Plan clearly responds to a request. Many people expressed their views and many concerns were recorded. The results presented in this document result from a tremendous amount of work, notably by dedicated volunteers. This initiative represents 14 months of work; 4 Consultative Committee meetings, 2 public information meetings and many specific meetings, including with First Nation communities, contributed to the success of this process. Considering the invested efforts, all the participants dearly wish to see a follow-up to the Management Plan and the implementation of the results.

The action plan submitted to the decision-makers is not an end in itself. It is rather a starting point for the future management of Lake Kipawa and it was of prime importance to have this document to go further. Project initiators, funders and implementation bodies, and especially everyone's involvement, will be essential for the implementation of the Concerted Management Plan.

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Appendix 1

Project Plan – Lake Kipawa Concerted Management Plan

Purpose of Document

The purpose of the present document is to provide an accurate framework for the preparation of the Lake Kipawa Concerted Management Plan. A brief historical background will allow understanding the origin of this Concerted Management Plan. The following sections explain the necessary steps for its successful implementation.

N.B.: Lake Kipawa Concerted Management Plan: the initial designation was changed after the public consultation in answer to participants' request (April 18th 2013). The initial name Lake Kipawa Concerted Development Plan induced the notion of development which is not absolutely contemplated. The aim is to know the development potential, if there is a potential, and to ensure a good management of existing issues. The ministère des Ressources naturelles will continue to use the name of Development Plan for administrative reasons.

Historical Background

Lake Kipawa is richly endowed with biological species, beautiful landscapes and social diversity. It has been occupied since time immemorial by First Nations and later by settlers who profitably developed its resources.

In the early 1980's, the reported precariousness of the lake trout stock lead the ministère des Loisirs, de la Chasse et de la Pêche (MLCP*) to declare a regional administrative moratorium on the development and increase of the outfitters' accommodation capacity. The purpose was to limit the fishing pressure.

Later in the mid- 1980's, the agreement was applied to the whole cottaging sector.

Following an agreement between the Ministry of Natural Resources (MRN) and FAPAQ in February 2001, the implementation of this agreement involved the identification of areas whose main wildlife characteristics imposed adjustments to recreational and tourism development. The criteria established to identify these areas were: recognition of local populations and users, wildlife potential, outfitters' accommodation capacity, level of tourist traffic, occasional users and interest for wildlife (wildlife related celebrations, spawning ground stocking or development, etc.) and importance of constraints related to development (scarcity of public lands, number of private cottages, etc.).

In April 2009, as part of the Regional Plan for Public Land Development (PRDTP), Lake Kipawa was designated as an area of wildlife interest and a moratorium was declared on cottaging development. Eleven additional lakes in Abitibi-Témiscamingue also have this status.

*list of acronyms is at the end of the document

Different major problems have lead to the designation of Lake Kipawa as an area of wildlife interest: wildlife potential, paramount use by First Nations, outfitters' accommodation capacity, importance of tourist traffic, constraints related to development (scarcity of lots suitable for development), importance for local communities, etc. These problems required adjustments to new developments.

The implementation of a Concerted Management Plan supported by a Consultative Committee is considered the preferred way to lift the moratorium. Ensuring that existing wildlife characteristics are maintained is an implicit condition.

Scope and objectives

The ultimate goal is to draft a Concerted Management Plan that would be the result of a literature review on the issues affecting Lake Kipawa and a collective reflection by all actors concerned. The territory to be covered by the Concerted Management Plan includes Lake Kipawa itself and a few satellite lakes (Grindstone, Mungo, MacLauchlin among others, at the Red Pine Chute level) surrounded by a 300 metre shoreline buffer strip, corresponding to the area of wildlife interest identified in the Public Land Use Plan (PATP).

For all the potential uses of the lake, the government expects the different land and resources management practices to be adapted in a way that will contribute to maintaining the wildlife potential and a management framework supporting the wildlife-based resources. More particularly, it should be noted that lake trout is a species to be protected for its attractiveness for anglers.

The present Project Plan will serve as a guideline for future actions to be carried out for a successful consultation process. The expected deliverables, timeframes and budget evaluation will all be fundamental elements addressed in the following sections.

To oversee the development of this plan, the Quebec government has allocated funds through the Regional Board of Elected Officials of Abitibi-Témiscamingue (CRÉ-AT), following a recommendation by the Regional Commission on Natural Resources and Public Lands (CRRNT) – $75,000 – and the Témiscamingue Regional County Municipality (MRCT) – $25,000.

The initiative to develop the plan came from the MRCT. The latter will ensure its elaboration in close partnership with the Témiscamingue watershed organisation, aka OBVT. The OBVT's mandate mainly consists in drafting the plan, drawing a profile of the territory, consulting with the actors to identify the concerns, issues and desired objectives, as well as proposing actions. The MRCT will work jointly with the OBVT at implementing the Lake Kipawa Concerted Management Plan and related activities, notably on the elements that are outside the OBVT's expertise. The MRCT is responsible for the plan's approval at the end of the process. It will then be submitted to MRN for final approval. The implementation will be done in partnership between the MRN and the MRCT.

Project Deliverables

The project's main deliverables are as follows:

- A profile of the territory highlighting the resources and specific characteristics to be preserved;
- The development issues and objectives resulting from the consultation (we will distinguish the individual objectives as expressed by the population and the organisations from the collective objectives, which take into account the documented issues such as threats on fish populations, drawdown zones, etc.
- The lake's vocations
- A lakeshore zoning plan taking into account the lake's potential development
- Regulations regarding the issuance of land rights
- An action plan

The core of the project, represented by the definition of the issues, objectives and the lake's vocations, allows preparing a realistic lakeshore zoning plan. It derives from the literature review, various meetings and the general consultation (see Communication and Consultation section).

Project Follow-up & Regulatory Compliance

Steering Committee

Each important step of the Lake Kipawa Concerted Management Plan (as identified in the protocol and funding agreement between the CRÉAT, MRCT and OBVT) will be validated by the Steering Committee. This committee is comprised of the organisations funding the process and the OBVT and includes:

- Tomy Boucher, Assistant Director General, MRC de Témiscamingue (MRCT),
- Claude Massé, Management Unit Director, Ministry of Natural Resources (MRN),
- Jean-François Turcotte, Development Officer, Regional Board of Elected Officials of Abitibi-Témiscamingue (CRÉAT),
- Norman Young, Mayor, Municipality of Kipawa,
- Ambroise Lycke, Director General, Organisme de bassin versant du Témiscamingue (OBVT),
- Thibaut Petry, Project Manager, OBVT.

A first draft of each document will be sent one or two weeks prior to the final draft deposit, then the Steering Committee provides comments and, if need be, a meeting may be organised to validate the modifications.

Consideration of Laws, Regulations and Administrative & Normative Frameworks

The Lake Kipawa Concerted Management Plan will be drafted in compliance with existing laws. The application of the lakeshore zoning plan is the municipalities' responsibility while the other regulations are under the MRCT's jurisdiction. MRN remains the public land manager.

During the drafting of the PRDTP, Lake Kipawa was classified separately. A total of 12 lakes were classified as areas of wildlife interest in Abitibi-Témiscamingue. Interim measures were applied to cottaging development on each one of them, but additional restrictions applied to Lake Kipawa.
All criteria for designating areas of wildlife interest were strongly represented on this lake, which lead to more sustained restrictions than on the other areas of wildlife interest. Private cottage development was granted on certain lakes of wildlife interest, but not on Lake Kipawa. The PRDTP is the support for the basic rules that will need to be applied for the lake's development.

Communication and Consultation

To sum it up, the line of conduct will be the same throughout the process:
Consultation with the actors, drafting of different documents by the OBVT, validation by the Users Consultative Committee, approval at each step by the Steering Committee (progress reports).
The scheduled dates appear in Appendix 1, but the key steps are summarised as follows:

Media Communication

Regional medias have already announced the intention to create a Concerted Management Plan for Lake Kipawa even before the project started (*La Frontière*, December 18, 2012; *Le Reflet*, January 9, 2013; *Radio-Canada*, January 8, 2013, etc.).

Nevertheless, a press conference will be organised with the major regional medias to:

- officially announce that the project has started, that a project manager was hired for one year at the OBVT and that he is encouraged to participate in the consultation activities;
- announce a general public information and consultation meeting.

Through this press conference, the general public will be invited to attend the information and consultation meeting. Radio and newspaper advertising will also allow disseminating the information on the general meeting.

It is important to mention that people wishing to voice their concerns and expectations will have an opportunity to do so at this meeting as well as through a survey.
The press conference could be held in the week of March 27.

Consultation

In addition to being based on available literature on the lake's main issues, the Concerted Management Plan relies on the efficient and comprehensive recording of the concerns of both the public and various organisations. The consultation method is as follows:

- Public consultation through the general meeting
- Survey to collect remaining concerns
- Users Consultative Committee mandated to closely follow-up on the different steps of the plan's development
- Specific meetings will be held with municipalities, First Nations and organisations wishing so or representing a particular issue to be clarified.

Considering that certain actors on the territory are English speakers, the general information and consultation meeting will be held in both languages. Furthermore, the letters of invitation, the survey questionnaire, the present Project Plan and the final Lake Kipawa Concerted Management Plan final will also be translated to English. For logistical and budgetary reasons, the Users Consultative Committee meetings and other documents will be in French only.

During the process, should conflicts or major disagreements arise between the actors and if the OBVT cannot resolve them, the MRCT will be responsible for re-establishing an appropriate working atmosphere to ensure the smooth conduct of the activities.

- **General information and consultation meeting**

The general meeting will include 3 major steps:

- Presentation of the process
- Creation of a Users Consultative Committee comprised of the large user groups and administrative managers
- Consultation with general public through workshops

- **Broad consultation: Survey**

The survey will include a few general questions to gather the concerns and objectives of the actors on the territory. It will be sent with the invitations for the general information and consultation meeting. It will also be handed out at the meeting and will be available on the OBVT Web site. The public and organisations will thus have about one month to answer it, i.e. about two weeks before the general information and consultation meeting and two weeks after such meeting.

- **Users Consultative Committee**

The purpose of this committee is to bring out the concerns of all the actors around the lake. The sharing of arguments, of each one's objectives and explanation of points of view will allow a clear insight of all perspectives to emerge. This joint process will not lead to a decision, but it is

rather aimed at preparing the ground for it. Only the elected officials can apply the final decision and this decision will integrate the consultation's outcome.

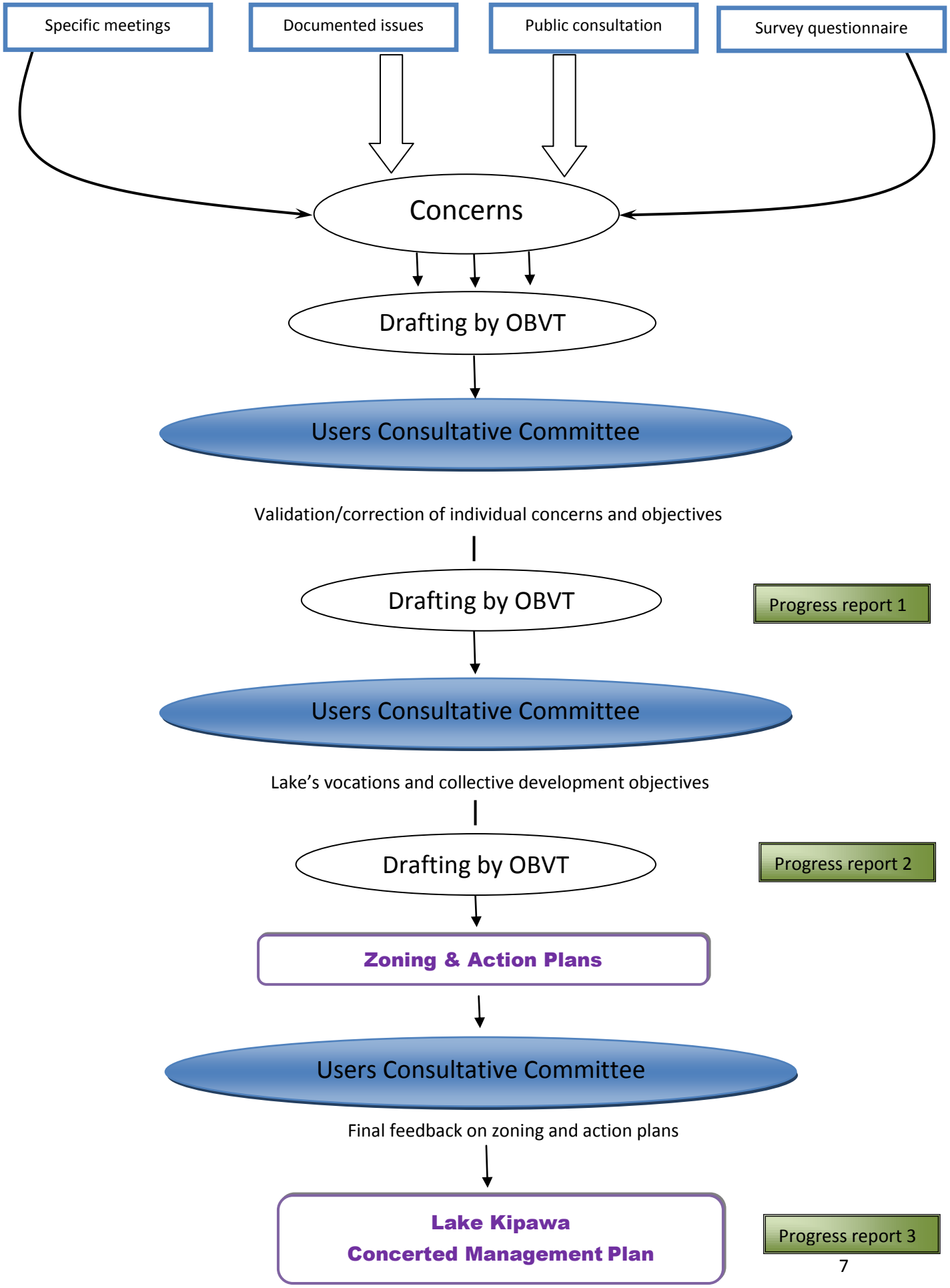
The major groups represented on the Users Consultative Committee are the following:

- municipalities (Kipawa, Témiscaming, Béarn and Laniel),
- First Nations (Eagle Village and Wolf Lake),
- economic sector (APAT, SDT, forest companies, mining companies, hydroelectric, etc.),
- environmental and community organisations (APART, CREAT, shoreline owners associations, kayakers and canoeists, etc.),
- government departments and SEPAQ representatives as resource persons.

The complete list of identified users to be consulted around the lake will be validated by the MRCT and MRN, and more users can be added by the local actors.

Ideally, a group of some fifteen participants would be advisable in order to ensure an efficient functioning of the committee. A total of 3 meetings is planned to allow commenting the different drafting steps of the Concerted Management Plan:
- end of May: 1st meeting of the committee members and comments on the initial concerns gathered through the general public meeting, the specific meetings and the survey; this will lead to identifying the different actors' concerns, individual development objectives and intentions
- July: consultation on the issues, concerted development orientations, collective objectives and vocations of Lake Kipawa
- October: consultation on the zoning plan and action plan; this will allow drafting the last progress report and the Concerted Management Plan.

The major steps of the process are illustrated in the following flowchart.


Specific meetings
Documented issues
Public consultation
Survey questionnaire
Concerns
Drafting by OBVT
Users Consultative Committee
Validation/correction of individual concerns and objectives
Drafting by OBVT
Progress report 1
Users Consultative Committee
Lake's vocations and collective development objectives
Drafting by OBVT
Progress report 2
Zoning & Action Plans
Users Consultative Committee
Final feedback on zoning and action plans
Lake Kipawa
Concerted Management Plan
Progress report 3

Aboriginal Involvement

From the very beginning of the process, the Wolf Lake and Eagle Village First Nation communities will be approached for a presentation on the process and to invite them to take part in the consultation activities. An individual meeting will also be proposed to explain the process. The MRN has confirmed that only these two communities occupy the territory around the lake and must be consulted as part of the process.

The MRN has the legal obligation to directly and specifically consult each community regarding the Lake Kipawa Concerted Management Plan. Furthermore, the communities will be invited to participate in the elaboration process of the Lake Kipawa Concerted Management Plan with the other actors so that they may, if they so wish, bring their views from the outset of the process. However, even if the communities do take part in the consultation processes, the MRN must still consult them in a specific manner. An English letter explaining this situation will be drafted by MRN at the beginning of the process and sent to the communities. A copy of this letter will be provided to the OBVT.

Summary Schedule and Budget

Major Steps

- March 11, 2013: approval of Project Plan
- March 27, 2013: press conference
- April 18, 2013: general public information and consultation meeting
- June 28, 2013: first progress report (including profile of territory, development potential, individual objectives)
- August 31, 2013: second progress report (including the lake's problematics, issues, development objectives and vocations)
- November 29, 2013: third progress report (including lakeshore zoning plan, development and action plan targets)
- End of December 2013: Lake Kipawa Concerted Management Plan
- January 31, 2014: final project report

See Appendix 1 for details on the sequence of the steps required to meet the above timeframe.

Costs

The costs forecast budget is presented below.

BUDGET ITEMS	Comment	Allotment
Human resources	According to OBVT wage policy, project manager and director general	$64,000.00
Travel expenses		$5,000.00
Office logistics	Includes rent, phone, Internet, photocopier, computer, stationary, etc.	$5,000.00
Communication and promotion		$5,000.00
Translation	Simultaneous translation for the general meeting and written translation of documents	$13,000.00
Consulting fees	Graphic artist, facilitator, Web programming	$5,000.00
Meeting logistics	Meals, room rental, etc.	$3,000.00

Plan Structure and Format

The Plan is directly based on the criteria required by MRN, which criteria were based on the PRDTP. The Plan will include the main following sections:

1) Issue-based Profile of the Territory

1-1 Location and description of Lake Kipawa
1-2 Land use
1-3 Faunal population status
(Fishing quality, habitat quality, economic spinoffs)
1-4 Shoreline condition
1-5 Sites of various interests
(Beaches, observation sites, marshes, etc.)
1-6 Habitats requiring protection and fragile sites
1-7 Access to the lake
1-8 Constraints and specific problems
(Ex: drawdown, moratorium, waste management, etc.)
1-9 Existing agreements

1-10 Regulatory instruments and existing planning tools

2) Individual Needs/Issues Assessment

2-1 Municipalities
2-2 Outfitting businesses and other service companies
2-3 Forest entrepreneurs
2-4 Vacationers/cottagers
2-5 Fishing associations
2-6 Aboriginal people
2-7 Etc. (dams, occupants without land rights)

3) Collective Objectives to be Achieved

4) Consultation Method

5) Lake Kipawa's Vocations

6) Maximum Development Capacity

7) Shoreline Zoning Plan

8) Land Rights Issuance Rules

9) Action Plan

List of acronyms :

- AGZAT : Association des gestionnaires de zecs d'Abitibi-Témiscamingue
- APAT : Association des pourvoyeurs d'Abitibi-Témiscamingue
- APART : Association pour l'avenir des ressources Témiscamiennes
- ATRAT : Association touristique régionale de l'Abitibi-Témiscamingue
- CCU : Comité de concertation des utilisateurs
- CPRRO : Commission de planification de la régularisation de la rivière des Outaouais
- CREAT : Conseil régional de l'environnement de l'Abitibi-Témiscamingue
- CRÉAT : Conférence régionale des élus d'Abitibi-Témiscamingue
- CRRNT : Commission régionale des ressources naturelles et du territoire
- FAPAQ : communément appelé la Société de la faune et des parcs
- MLCP : Ministère des loisirs, de la chasse et de la pêche
- MRCT : Municipalité régionale de comté de Témiscamingue
- MDDEP : Ministère du développement durable, de l'environnement et des parcs
- MRN : Ministère des Ressources naturelles
- OBVT : Organisme de bassin versant du Témiscamingue
- PATP : Plan d'affectation du territoire public
- PRDTP : Plan régional de développement du territoire public
- PRDIRT : Plan régional de développement intégré des ressources et du territoire
- SÉPAQ : Société des établissements de plein air du Québec
- SDT : Société de développement du Témiscamingue
- TCF : Territoire à caractère faunique

Appendix 2

WOLF LAKE FIRST NATION
Hunter's Point, P. O. Box
Temiscaming, Quebec
J0Z 3R0
Tel: 819-627-3628
Fax: 819-627-1109

Eagle Village First Nation-Kipawa
Migizy Odenaw
P.O. Box 756
Temiscaming, QC
J0Z 3R0
Tel: 819-627-3455 Fax: 819-627-9428

September 26, 2013

Mr. Ambroise Lycke
Director-General
Organisme de bassin versant
du Témiscamingue
1C, Notre Dame Street North, Suite 1.3
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Minister of Aboriginal Affairs
Secrétariat aux affaires autochtones
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Hon. Martine Ouellet
Minister of Natural Resources
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Hon. Yves-François Blanchet
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Mr. Arnaud Warolin
Prefect,
MRC-Témiscamingue
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Deputy Premier
Minister of Agriculture, Fisheries
& Food
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By Fax: (418) 380-2184

Hon. Sylvain Gaudreault
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Édifice Jean-Baptiste-De La Salle
10, rue Pierre-Olivier-Chauveau
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Québec (Québec) G1R 4J3

By Fax: (418) 643-1795

Re: JOINT PRESENTATION ON PROPOSED LAKE KIPAWA MANAGEMENT PLAN

Dear Mr. Lycke, Mr. Warolin & Ministers:

We are pleased to present to your organizations and the Government of Quebec the Joint Position of our two Algonquin First Nations on the Proposed Lake Kipawa Management Plan.

We appreciate the opportunity given to us to provide our comments to the OBVT and the MRC Temiscamingue regarding the proposed Lake Kipawa Management Plan. We hope our comments help to clarify the position of our two Algonquin First Nations on this matter.

We are prepared to work with the government of Quebec (and the regional/municipal governments) on a future Lake Kipawa Joint Management and Co-operation Agreement through a mutually agreed upon consultation-accommodation process.

We congratulate the OBVT for agreeing to undertake this important task on behalf of the MRC-Temiscamingue about the future of Lake Kipawa, the fishery, the water quality and the shoreline habitat.

We look forward to reviewing the final OBVT Report & Draft Lake Kipawa Management Plan once it is completed and discussing the next steps with the government of Quebec.

Sincerely,

Chief Harry St. Denis
Wolf Lake First Nation

for Chief Madeleine Paul
Eagle Village First Nation

cc. Chief Terrance McBride,Timiskaming First Nation
Mr. Gilles Chapadeau, PQ, Member for Rouyn-Noranda–Témiscamingue

WOLF LAKE FIRST NATION
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Eagle Village First Nation-Kipawa
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JOINT PRESENTATION
ON
PROPOSED LAKE KIPAWA MANAGEMENT PLAN
TO
OBVT, MRC-TEMISCAMINGUE,
QUEBEC ABORIGINAL AFFAIRS SECRETARIAT
QUEBEC MINISTRY OF AGRICULTURE, FISHERIES & FOOD
QUEBEC MINISTRY OF NATURAL RESOURCES
QUEBEC MINISTRY OF MUNICIPAL AFFAIRS
QUEBEC MINISTRY OF SUSTAINABLE DEVELOPMENT, LANDS, WILDLIFE & PARKS

September 26, 2013

Introduction

On July 26, 2013, Chiefs Harry St. Denis and Madeleine Paul and other representatives from our two Algonquin First Nations met with L'Organisme de bassin versant du Témiscamingue (OBVT) Director–General, Ambroise Lycke and Project Manager, Thibaut Petry, to discuss the mandate of the OBVT, the OBVT consultation process and OBVT preliminary findings of the proposed Lake Kipawa Management Plan.

The following comments reflect our two Algonquin First Nations joint position on Quebec's proposed Lake Kipawa Management Plan.

We are presenting our views on this public consultation process not only to OBVT and the MRC-Temiscamingue, but also to the relevant Quebec departments, since it is the Quebec government that owes to our two First Nations the legal duty to consult and accommodate as directed by the Supreme Court of Canada in the 2004 Haida decision.

We fully expect the government of Quebec to consult and accommodate our two Algonquin First Nations on the findings and recommendations when the OBVT and MRC Temiscamingue public consultation process phase on the proposed Lake Kipawa Management Plan is complete.

Background

Our Algonquin First Nations of Wolf Lake (WLFN) and Eagle Village (EVFN) (and Timiskaming) assert unextinguished Aboriginal rights, including title, over our traditional territories, which straddle the Ottawa River basin on both sides of the Quebec-Ontario boundary. A map showing the territory over which our communities assert their Aboriginal rights is appended to this document as Annex 'B'.

In January 2013, our two Algonquin First Nations (and TFN) jointly released a **Statement of Asserted Rights** (**SAR**) which summarizes the Aboriginal and Treaty rights which our three First Nations assert, and provides detailed evidence to substantiate it. Copies of the **SAR**, maps and background documentation were transmitted to the Quebec Ministers responsible for Aboriginal Affairs, Natural Resources, and Justice, on 23 January 2013. (see Annex 'A')

As we noted above, the Crown in right of Quebec has a legal duty to consult First Nations when developments may impact on their asserted rights, and to accommodate them if circumstances warrant. The government of Quebec has developed a policy to address its consultation obligations. The nature and scope of the duty to consult will vary, depending on impacts of the proposed development, and also depending on the evidence put forward by the First Nations.

With the **SAR**, our two Algonquin First Nations (and TFN) have provided detailed and substantive evidence to document the rights which we are asserting. As a result, the government of Quebec is obliged to respond in a meaningful way that reflects the nature and scope of the evidence provided.

Algonquin Proposal to Quebec for Consultation Mechanism

On August 12, 2013, our three Algonquin First Nations (WLFN,EVFN, TFN) submitted a proposal to the Quebec Minister of Aboriginal Affairs, Élizabeth Larouche, also present during the meeting was the Rouyn-Noranda–Témiscamingue Member of the National Assembly, Gilles Chapadeau and MRC Témiscamingue Prefect, Arnaud Warolin.

Our proposal to Quebec Minister of Aboriginal Affairs, Minister Larouche, is to establish a formal Consultation mechanism for managing natural resource developments occurring on lands within the Abitibi-Témiscamingue and Outaouais regions of Quebec that are subject to our three Algonquin First Nation's Aboriginal Rights and Title.

We as the Chiefs of our each of our three respective Algonquin First Nations told Minister Larouche that a formal Consultation Protocol is required for Algonquin consultations and/or accommodation in projects or activities involving natural resources, such as the Regional Board of Elected Officials of Abitibi-Témiscamingue Plan for Integrated Land and Natural Resource Development of Abitibi-Témiscamingue (PRDIRT), forestry, mining, the current review of a management plan for Lake Kipawa and other regional developments, such as Opemican Park and protected areas. (emphasis added)

The Quebec Minister of Aboriginal Affairs, Élizabeth Larouche, committed to discussing with a Quebec government inter-departmental committee reviewing the Algonquin summary of evidence and sending a letter back to our three Algonquin Chiefs in a short time with Quebec's response to our proposal.

We, as the Chiefs of our Algonquin First Nations confirmed to the three Quebec political representatives that our Algonquin First Nations are not opposed to the sustainable development of the regions (Abitibi-Temiscamingue & Outaouais), but that Algonquin involvement in natural resource plans and activities must occur through a formal Consultation Protocol consistent with the provincial government's legal duty to consult and accommodate First Nations, which, as we have already noted above, was set out in the Supreme Court of Canada's 2004 Haida decision.

Objectives of Algonquin Consultation Mechanism Proposal

There are two main objectives of our Algonquin Consultation Mechanism proposal:

1. **Internal Algonquin Protocol:** Develop a formal protocol between our three Algonquin First Nations (WLFN-EVFN-TFN) to address issues arising from overlaps and shared use territories, in order to establish predictable and transparent procedures, on a geographic basis, for identifying and managing consultation requests from the provincial government. This would include shared standards and procedures for consultation response and management, and the identification of roles and responsibilities.

2. **Algonquin-Quebec Protocol:** Between WLFN, EVFN (and TFN) and SAA: Develop a formal protocol to manage consultation issues within the territory, including

agreed upon standards and procedures for consultation response and management. This would make use, where appropriate, of economies of scale and pooled efficiencies.

Geographic Scope of Algonquin-Quebec Protocol

The subject area would include the lands and waters identified on the map (see Annex 'A') that lie within the province of Quebec, and any other areas (ie., portions of the Ottawa River that are transboundary) as may be agreed upon.

The Algonquin First Nations of Eagle Village & Wolf Lake Watershed Management Planning

Our First Nations have been working on a **Draft Water Declaration** within the traditional territory of our Algonquin Nation which includes the entire Ottawa River watershed. The core and shared territories of our Algonquin First Nations of Eagle Village and Wolf Lake includes specific portions of the Ottawa River watershed. The main river catchments of our territories, beside the Ottawa itself but not limited to, includes those of the Kipawa, Dumoine, Beauchene & Maganasipi.

Without the consent of our Algonquin Peoples much of our territories have been affected by dams and reservoirs, water represents about 15 % of our territories.

There have been significant impacts to aquatic ecosystems and consequently our lands and livelihood as a result of the construction of dams and the operation of the reservoirs.

Under the **Draft Water Declaration** we declare all waters that flow into and out of Kipawa, Beauchesne (both reservoirs), Wolf, Brennan, Grassy, Brulé, Ostaboningue, Dumoine, Saseginaga and Saint-Patrice Lakes and all lands whose waters flow into those lakes, rivers, groundwaters and wetlands, to be completely protected through our continued care under the authority of the Algonquin governments of Eagle Village, Wolf Lake (and Timiskaming).

We look at protection and restoring our land and waters, as much as possible, to their original condition and preserving them in that condition for future generations by the following:

- Water is the source of life – a sacred gift given by the Creator to heal and sustain all living beings.

- Water is alive, and is life itself. All life on this earth depends on healthy water for survival. Water is a relation, we depend on it and it connects us to all other living things.

- Our Algonquin Peoples have lived on our territories for thousands of years.

- We proclaim our role as the First peoples of this territory – the original caretakers – with rights and responsibilities to defend and ensure the protection, availability

and purity of the water for the survival of the present and future generations, and for all life.

For our Algonquin Anishinabe Peoples water is sacred and considered the blood of our Mother Earth. Through our **Draft Water Declaration** we continue to self organize around themes that protect our culture and heritage. These interests form the basis for community efforts in bio-cultural restoration of traditional and contemporary cultural ecological interests (e.g., traditional gathering, hunting, fishing and trapping as well as contemporary interests in eco-tourism, ecosystem services and biodiversity). These activities stem from our right as Indigenous Peoples to self-determination (i.e., self-governance) derived from a history of traditional ecological knowledge (TEK) and governance on the land that provided the original instructions of what kind of humans Anishnabe are to be.

While Lake Kipawa and other connected water management units were solely under Algonquin tenure for thousands of years the modern problems associated with the degradation of the water quality, quantity, shoreline habitat, fish spawning sites and fish stocks, toxic contaminants, invasive species and water security, did not exist. Our comments here are guided by King's suggestion (1995) about how the theory and practice of sustainable resource management can benefit from the study and knowledge of communities that have successfully avoided ecological collapse over the long term.

Therefore, we are seeking a greater role in the management of Lake Kipawa. While modern management tools and perspectives may be different from our traditional perspectives as Indigenous Peoples, both have a great deal to offer one another. We believe the traditional knowledge of our ancestors and elders should be honoured and applied to new challenges facing Lake Kipawa. Our local ecological knowledge was built over generations as our people learned from the land we depended on for food, materials and culture. Our traditional knowledge increases the timeline of available knowledge on Lake Kipawa in deriving a future management plan.

We agree working together is the best way of helping us achieve a better common understanding of the issues surrounding Lake Kipawa.

As such, we look forward to the acknowledgement of our history and knowledge in the spirit of co-operation through the terms of the Quebec-Algonquin Consultation Protocol. In the interim, we would like to express our concerns from which we can later develop a Lake Kipawa Joint Management and Co-Operation Agreement with the Quebec government.

To this end an Algonquin Fisheries Inland Habitat Project was undertaken from 2008 until 2011.

Algonquin Aboriginal Inland Habitat Project (AIHP)

The goal of our AIHP project was to renew Algonquin Nation Secretariat (ANS) member communities' (Timiskaming First Nation [TFN] and Wolf Lake First Nation [WLFN])

direct involvement in matters related to fisheries and fish habitat management; to be able to enhance the capacity of the ANS and its member communities to participate in the conservation and the management of fish habitat on their traditional territories as well as to be capable of participating actively during environmental assessments or consultation requests from the Quebec government. This is a priority for each Algonquin First Nation. Another need identified by the First Nations was to assess impacts of dams and reservoirs on fish habitat and fish population in order to mitigate such impacts. Forestry and mining operations effects on fish habitat were also identified as a concern, as well as agriculture and cottage development.

The AIHP Project Objectives were:

1) Train AIHP teams and communities' leadership in DFO regulatory activities.
2) Enhance technical capacity of AIHP teams to perform fish habitat related field work.
3) Continue development and maintenance of our information tools and databases.
4) Research fish habitat protection regulations and guidelines and add an Algonquin complement.

The results of the AIHP were:

- Field training was conducted with Algonquin participants on spawning sites assessment methods for ANS member communities' most important species, i.e. Walleye, Lake Sturgeon, Lake Trout, Northern Pike, Whitefish, Brook Trout and Smallmouth Bass. Topics covered were:

    - Characteristics of spawning habitat
    - Spawning period and temperature
    - Biologic sampling methods
    - Habitat characterization methods
    - Identification of eggs and larvae
    - Data collection, capture and processing
    - Management tips

- There was also riparian and aquatic plant identification training of Algonquin participants.

- Building on the spawning site assessment techniques training, verification of Algonquin Traditional Knowledge (ATK) and governmental agencies spawning sites data in the field was conducted.

- Update of our fish habitat database and addition of complementary data on lakes and rivers traditional Algonquin names and uses were undertaken.

- An Algonquin Fish Atlas/Map was created and continually updated.

- An instruction manual was prepared for the **Watershed Information Summary System** (WISS) has been presented to the users. Furthermore, length of roads by watershed management unit (WMU), area of wetland by WMU and number of spawning sites by watershed were functionalities added to our WISS. We were able to produce watershed summary maps for these and other themes. These maps were created through our WISS, with data exported to Google Earth format.

- A web-based research of existing regulations and guidelines for forestry road, mining exploration, cottage development, and agriculture was conducted. Governmental and non governmental information was gathered, in both French and English. Review of the documents found was done. As for unpublished documents, recently developed draft fish habitat protection guidelines for forestry road building and maintenance in the Abitibi-Temiscamingue region were obtained and reviewed.

Algonquin Concerns with Canada & Quebec's Poor Management of Lake Kipawa

Our Algonquin First Nations are concerned about the past decisions made by the governments of Canada and Quebec, MRC Temiscamingue and the Municipalities of Kipawa, Laniel and Temiscaming, which have led to the following problems for Lake Kipawa:

- Bio-Diversity loss eg. shoreline habitat due to logging & removal of trees.
- Decrease in fish stocks by non-Algonquin sports users and damage to fish spawning sites by non-Algonquin developments.
- Fluctuation of Lake Kipawa water levels by reservoir pattern of operation determined by Ottawa River Regulation Planning Board not local people.
- Potential invasion of Zebra Mussels & other invasive species from out of province boats-recreational/sports users.
- Poorly planned and poorly regulated (of largely non-Algonquin) residences & cottages along shoreline effects the water quality of Lake Kipawa.
- MNR approval of cottage development at Red Pine Chute at a main spawning site for walleye.
- Cottage development at Turtle Dam in a known Walleye sanctuary.
- Water security from industrial waste contaminants and/or other anthropogenic pollutants eg. Pollution of Lake Kipawa by septic systems too close to the shoreline, and non-existent septic systems.
- Toxins in traditional foods, moose, deer, bear.

We note most of the above concerns are shared by the **OBVT User Consultative Committee Members** albeit from a different perspective.

Our two First Nations have also identified the following eminent threats to Lake Kipawa.

Major Threats for Lake Kipawa

- Proposed Matamec Project (Rare Earths Open Pit Mine), which is located near a number of major spawning sites.
- Proposed Expansion of Municipality of Kipawa boundaries and opening of new municipal lots generating additional development pressures.
- Proposed Hydro-Quebec Tabaret Project.
- Proposed lifting of the moratorium for new cottage development.

We must point out that our two Algonquin First Nations were not consulted by the governments of Canada and Quebec in the decisions regarding the construction and operation of the Laniel and Lake Kipawa dams. Nor were our two Algonquin First Nations consulted about the non-Algonquin settlement and development of the shoreline of Lake Kipawa, fisheries (and fish habitat) management.

In fact, the Quebec government has only recently begun to consult our two Algonquin First Nations in an ad hoc manner on forestry and other local developments affecting our traditional lands, waters and resources. This is because the Supreme Court of Canada in its landmark Haida decision of 2004, has directed that Crown governments, including Quebec, have a duty to consult and accommodate First Nations when proposed projects or activities are planned for the traditional territories of First Nations.

Algonquin Concerns with OBVT Mandate and Process

One of the challenges for our two Algonquin First Nations has been that the Laniel and Lake Kipawa dams and Kipawa reservoir have been in operation for many decades, as well as, non-Algonquin settlement and development around and on Lake Kipawa.

Normally, impact assessments look ahead to future impacts that may arise as a result of proposed developments, but in our case, the impact assessment must be retrospective, taking into account things that may have happened decades or even a century ago.

As we pointed out in the above sections of this paper we have proposed a broad consultation protocol between our First Nations and the government of Quebec for proposed plans or projects involving natural resources on our traditional lands over which we assert Aboriginal Rights and Title.

It is our expectation that the government of Quebec through its relevant departments will consult and accommodate our Algonquin First Nations on the outcomes and recommendations resulting from the OBVT and MRC Temiscamingue public consultation process once the public consultation phase is complete.

We also expect the consultation process will be in accordance with the proposed **Algonquin-Quebec Consultation Protocol** and Process we presented to Minister Élizabeth Larouche on August 12, 2013.

We are not opposed to regional development, including the management of Lake Kipawa, as long as, it is environmentally sustainable and recognizes our Algonquin Aboriginal Rights and Title by including us in the decision-making process.

Kipawa Power Project

One example of our two Algonquin First Nations willingness to work with regional and municipal governments is the **Kipawa Power Project**. An agreement was signed between our two Algonquin First Nations, Innergex & MRC in May 2012, to continue to work together in partnership on the development of the hydroelectricity project in the Temiscaming region.

We have already made our opposition to the proposed **Tabaret Project** known publicly and have offered an alternative proposal for hydro development using the existing dams and installations. The proposed **Tabaret Project** would necessarily involve the creation of a third outlet on Lake Kipawa.

This project involves the construction of two hydroelectric plants along Gordon Creek with the expertise of Innergex, an independent developer and operator of renewable power generating facilities. Our two Algonquin First Nations will be majority owners while substantial royalties will be distributed to the Témiscamingue MRC, and the municipalities of Temiscaming, Kipawa and Laniel. Moreover, this hydroelectric project would lead to greater water flow and circulation in the Bay of Kipawa, Jawbone's Bay and Gordon Creek.

This project, which consists of two (2) power plants along the Creek Gordon, adopts the principle of the former Gatineau Power plant, which was decommissioned in1969.

With a total installed capacity of 42 MW, the Kipawa project will produce 220 Gigawatt-hours of electricity annually, which in addition to secure regional electricity supply, will generate direct revenues for our two Algonquin First Nations and will generate substantial economic benefits for the region.

We are still waiting for the government of Quebec's agreement with this project to address the unstable hydro power production for the Temiscaming region, which is itself an impediment to the development of the region.

Conclusion

In conclusion, the following table lists a summary of our Lake Kipawa management concerns and their cause:

Concern	Cause
Spawning Site	Cottage development near spawning sites
Spawning Site	Water level fluctuation
Water Quality	Invasive species
Water Quality	Loss of shoreline habitat
Water Quality	Outdated septic systems
Fish Stocks	Over fishing by sports users
Water Security	Toxic spills from proposed Matamec site

In light of these concerns/causes, our two Algonquin First Nations are in favor of the following measures:

- Preserving the spawning sites.
- Lowering the fishing quotas for sports users since the 1990 Supreme Court of Canada Sparrow decision confirmed a priority use for the Aboriginal food fishery.
- Local management of water level during critical spawning periods and egg development periods.
- Installation of a boat washing station. The money collected to be used specifically for management of Lake Kipawa.
- Stricter and **enforced rules and regulation** on maintenance of shoreline and septic system.
- Regulate to minimum distance to build from the water's edge.
- Maintain moratorium for new cottage development by non-Algonquins until such time as existing cottages and septic systems are up to legal standards.
- A Joint Canada-Algonquin Environmental Assessment should be undertaken of the proposed Matamec Project.

We appreciate the opportunity given to us to provide our comments to the OBVT and the MRC Temiscamingue regarding the proposed Lake Kipawa Management Plan. We hope our comments help to clarify the position of our two Algonquin First Nations on this matter.

We are prepared to work with the government of Quebec (and the regional/municipal governments) on a future Lake Kipawa Joint Management and Co-operation Agreement through a mutually agreed upon consultation-accommodation process.

We congratulate the OBVT for agreeing to undertake this important task on behalf of the MRC-Temiscamingue about the future of Lake Kipawa, the fishery the water quality and the shoreline habitat.

We look forward to reviewing the final OBVT Report & Draft Lake Kipawa Management Plan once it is completed and discussing the next steps with the government of Quebec.

Timiskaming, Wolf Lake and Eagle Village

Members of the Algonquin Nation

Statement of Assertion of Aboriginal Rights & Title

OVERVIEW

11 January 2013

For further information contact:
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Chief Terence McBride, Timiskaming 819-629-7091 (English/Français)
Chief Madeleine Paul, Eagle Village 819-627-6884 (English/Français)
Peter Di Gangi, Algonquin Nation Secretariat 819-723-2019

TIMISKAMING, WOLF LAKE & EAGLE VILLAGE, MEMBERS OF THE ALGONQUIN NATION:

STATEMENT OF ASSERTION OF ABORIGINAL RIGHTS AND TITLE

11 January 2013

OVERVIEW

Strong *Prima Facie* Claim

This Statement of Asserted Aboriginal Rights and Title (Statement) establishes that the Claimants possess a strong *prima facie* claim to their traditional territories, which straddle the Ontario-Quebec border along the Upper Ottawa River, as depicted in the map attached to this Overview. The claimants have never surrendered their Aboriginal rights and title by treaty or otherwise, and have never authorized any Aboriginal group in Quebec or Ontario, including the Algonquins of Pikwakanagan (Golden Lake), to negotiate for them in in relation to such rights.

Timiskaming, Wolf Lake and Eagle Village First Nations are Rights Holders

The Statement has been prepared on behalf of the First Nations of Timiskaming (TFN), Wolf Lake (WLFN), and Eagle Village (EVFN), who are all members of the Algonquin Nation. It provides a summary of the evidence collected to date, supporting their assertions of Aboriginal title and rights within their traditional territories.

TFN, WLFN and EVFN are all descended from the Algonquin Bands who traditionally used and occupied the territory in question, namely the Timiskaming, Dumoine and Mattawa Bands of the 19th century. Their members can trace their ancestry and continued use and occupation of this territory back to time immemorial.

TFN, WLFN and EVFN are all recognized as "Bands" within the meaning of the *Indian Act*, and come within the meaning of "Indian peoples" in section 35 of the *Constitution Act, 1982*. They have never entered into a land cession treaty surrendering their Aboriginal rights and title; nor have they authorized any other nation or entity to negotiate on their behalf for such title and rights. Therefore, their Aboriginal rights and title have never been extinguished and exist to this present day.

The Crown Owes a Duty to Consult and to Obtain Rights Holders' Free Prior and Informed Consent

The purpose of the Statement is to set-out the evidence to support WLFN, TFN and EVFN in their efforts to engage the honour of the Crown and its duty to consult them and accommodate their interests in matters affecting their traditional territories. It is intended to engage Canada's obligations under domestic law (*Constitution Act, 1982*, s. 35 and the *Haida* case) and international law, the *United Nations Declaration on the Rights of Indigenous Peoples* (UNDRIP), which requires free prior and informed consent before any development activities within the traditional territories of Indigenous Peoples.

The Statement is provided as an interim step prior to the completion of formal Statements of Claim from TFN, WLFN and EVFN, and is provided at this time to give the Crown formal notice of their asserted Aboriginal rights and title. The research documenting WLFN and TFN's Aboriginal title and rights is largely complete, and will be followed in due course with a Statement of Claim. EVFN's research is still underway, and will take further time before it is completed. The form and content of this Statement reflects this: it is directed primarily to the assertions of TFN and WLFN. EVFN's asserted rights are covered in a separate chapter, which identifies what sections of the main document contain evidence common to all three communities, as well as additional assertions that can be made with specific reference to EVFN based on research to date.

Although the Statement is only a summary of the evidence, it is intended to provide enough evidence to trigger the Crown's duty and to establish that the scope of that duty is at the high end because of the strength of the claim.

The Claim – Asserted Aboriginal Rights and Title

WLFN and TFN assert Aboriginal rights and title over the territory identified in the body of the Statement, outlined in a series of maps which are included to identify the general boundaries of the "Asserted Aboriginal Rights and Title Area", including areas over which Aboriginal title is asserted, as well as areas over which Aboriginal rights (but not title) are asserted.

This Statement asserts both Aboriginal title and site-specific Aboriginal rights. The following jurisprudence is relied on in support of asserted Aboriginal rights: *R. v. Adams*, *R. v. Van der Peet*, and *R. v. Côté*. The area over which Aboriginal title is asserted is identified in the maps contained in the Statement and is supported by the Supreme Court of Canada decision, *Delgamuukw v. British Columbia*.

Date of Contact is *circa* 1680 and the Date of Sovereignty is *circa* 1850

The date of contact for purposes of the legal tests for Aboriginal rights is sometime after 1680, when the French built trading posts in the Temiscamingue region. The evidence shows that the ancestors of TFN, WLFN and EVFN were present in the territory at this time.

For purposes of proving Aboriginal title the date of Crown sovereignty is circa 1850, the time the Crown began to exercise effective sovereignty in the region. The evidence indicates that the Timiskaming, Dumoine and Mattawa Bands, ancestral to today's Timiskaming, Wolf Lake, and Eagle Village First Nations, occupied their territories at this time to the exclusion of other groups.

Establishing Aboriginal Rights and Title: Culture and Social Organization

WLFN, TFN and EVFN belong to what is now known as the Algonquin Nation, and self-identify as *Anishnabe*. The social organization of the Algonquin Nation was such that the Band, made up of extended families, was the land holding unit. Some responsibilities lay at the nation level. The nation and its member bands were governed by commonly recognized traditional laws and customs that regulated land ownership, tenure, access, and resource use.

The activities asserted as Aboriginal rights by WLFN, TFN and EVFN are those which are integral to the culture and traditions of the Algonquin people at first contact, and which continue to be exercised in the modern context. There are territorial (site-specific) and non-territorial aspects to these activities, that include such things as hunting, fishing, trapping and gathering, all of which had economic and trade aspects, and which find contemporary expression today.

These activities are not unique to WLFN, TFN and EVFN, but are practiced in common across the Algonquin nation, and their importance and continued significance are amply demonstrated by current use and occupancy studies commissioned by the Algonquin Nation Secretariat.

Establishing Aboriginal Rights and Title: Occupancy

WLFN, TFN and EVFN assert that they meet the evidentiary requirements for use and occupancy under the tests for both Aboriginal title and Aboriginal rights. Their members continue to use and occupy lands and waters within their respective traditional territories, as well as lands within the boundaries of the Algonquin Nation territory. Historically, they relied on well-established customs and laws to regulate tenure, land use, and allocation, therefore meeting the tests for legal occupancy. There is sufficient evidence to satisfy a connection to the areas identified, and to satisfy the legal tests needed to establish occupancy. Current use and occupancy is put forward as presumptive proof of Aboriginal rights and title.

Analysis of Continuity: Pre-History and History of the Region

Archeological, historical and genealogical evidence confirms the presence of the ancestors of WLFN, TFN and EVFN in the area for centuries. Archaeological evidence at the Obawjeewong / Fort Temiscamingue site confirms continuous occupation for a period of between 6,000 and 7,000 years. General knowledge of the Algonquin-speaking groups by the French dates back to the first half of the seventeenth century with the earliest contact occurring around the year 1603. As previously mentioned, sustained contact with the ancestors or WLFN, TFN and EVFN began after 1680 when the French began building trading posts in the Temiscamingue region.

Analysis of Continuity Particularly for Aboriginal Title: Bands and Band Territories

The territories of WLFN, TFN and EVFN changed considerably in the period 1850-1951 as the dominant economic activities transitioned from the fur trade, to lumbering, to colonization and agriculture, and finally hydro, mining, and tourism. Dispossession of their traditional territories, coupled with devastating waves of epidemic diseases, had a dramatic impact on the people, and required significant adaptations, including the reconfiguration of traditional bands, and a realignment of use and occupancy patterns. However, despite these changes, the current rights holders and their ancestors maintained significant continuity in terms of their membership, and in the use and occupancy of their traditional territories. This is demonstrated by the evidence.

The Crown has Consistently Recognized the Aboriginal Rights and Title of the Algonquin Nation and TFN, WLFN and EVFN: The *Royal Proclamation of 1763* and Treaties of 1760-64

The historical evidence shows a long history of political recognition of the existence of TFN, WLFN, and EVFN and their predecessors. The French, the British Crown, and the Crown in Right of Canada recognized the traditional territories, rights and interests of the Algonquin Nation, including the ancestors of TFN, WLFN and EVFN. Their traditional territories were included in the area covered by the *Royal Proclamation of 1763*, a fact which has been acknowledged by recent Canadian governments.

A series of treaties made with the British between 1760 and 1764 recognized the territorial rights of the ancestors of WLFN, TFN and EVFN. However, despite these things, over time the Crown allowed the lands of WLFN, TFN and EVFN to be overrun by third parties, without their consent and without any form of compensation. The Crown did not fulfill its duty to protect the land as obligated by the honour of the Crown and its fiduciary duties; nor did it enter in a land treaty in accordance with the requirements of the *Royal Proclamation of 1763*. As a result, TFN, WLFN and EVFN suffered significant harm.

Non-Extinguishment

The Aboriginal title and rights of TFN, WLFN and EVFN have not been extinguished by treaty or any other lawful means, and there is no evidence of there being a clear and plain intention to extinguish such rights. There are no land cession treaties covering the portions of WLFN, TFN or EVFN territory now lying in Quebec. Although there are several treaties in Ontario which purport to cover the parts of the traditional territories of the Algonquins generally, and TFN, WLFN and EVFN in particular, a review of these treaties will make it clear that neither TFN, nor WLFN, nor EVFN, nor their predecessors, participated in any of these treaties. Section 35 of the *Constitution Act, 1982* stipulates that these rights can only be extinguished by consent, in accordance with the test proving extinguishment laid down in *R. v. Sparrow*. Furthermore, TFN, WLFN and EVFN have never authorized any Aboriginal group in Quebec or Ontario, including the Algonquins of Pikwakanagan (Golden Lake), to negotiate in relation to their Aboriginal rights and title.

Timiskaming, Wolf Lake and Eagle Village: Asserted Aboriginal Rights Area

This map shows the area over which the Algonquin First Nations of Timiskaming, Wolf Lake, and Eagle Village assert continuing Aboriginal rights. This territory, which measures approximately 34,209 square kilometres (13,208 square miles), straddles the Ontario - Quebec border, and includes the areas over which each of these communities asserts its own Aboriginal title, as well as Aboriginal rights. The Timiskaming, Wolf Lake and Eagle Village First Nations also assert rights over the traditional territory of the Algonquin nation (see inset below) that inhere as a result of being part of the Algonquin nation.

The inset map below shows Algonquin Nation territory in the period 1850-1867. The total area of the nation's territory at this time measured about 195,772 square kilometres (75,587 sq mi), of which 38% lies in what is now the province of Ontario. For reference purposes, the map also shows the boundary established by the Royal Proclamation of 1763 between the new British Colony of Quebec (carved out of the former French colony of Canada or New France) and Indian Territory.

Legend

- Ontario & Quebec Boundary Commission line of 1875
- Height of land
- Timiskaming, Wolf Lake, and Eagle Village Rights Area

"... an aboriginal society asserting the right to live on its ancestral lands must specify the area which has been continuously used and occupied. That is, the general boundaries of the occupied territory should be identified. I recognize, however, that when dealing with vast tracts of territory it may be impossible to identify geographical limits with scientific precision. Nonetheless, this should not preclude the recognition of a general right of occupation of the affected land. Rather, the drawing of exact territorial limits can be settled by subsequent negotiations between the aboriginal claimants and the government."
Delgamuukw v. British Columbia [1997] 3 S.C.R. 1010, per La Forest, J., at para. 195

Without prejudice and for discussion only. This map is provisional. Boundaries are based on the results of research to date and may change as additional materials are discovered. This map is not to be displayed, used, or reproduced without prior approval of the Algonquin Nation Secretariat.

Prepared by Pierre Giaro for the Algonquin Nation Secretariat, January 2013. RN 51836.

1:550,000
0 20 40 60 Kilometers

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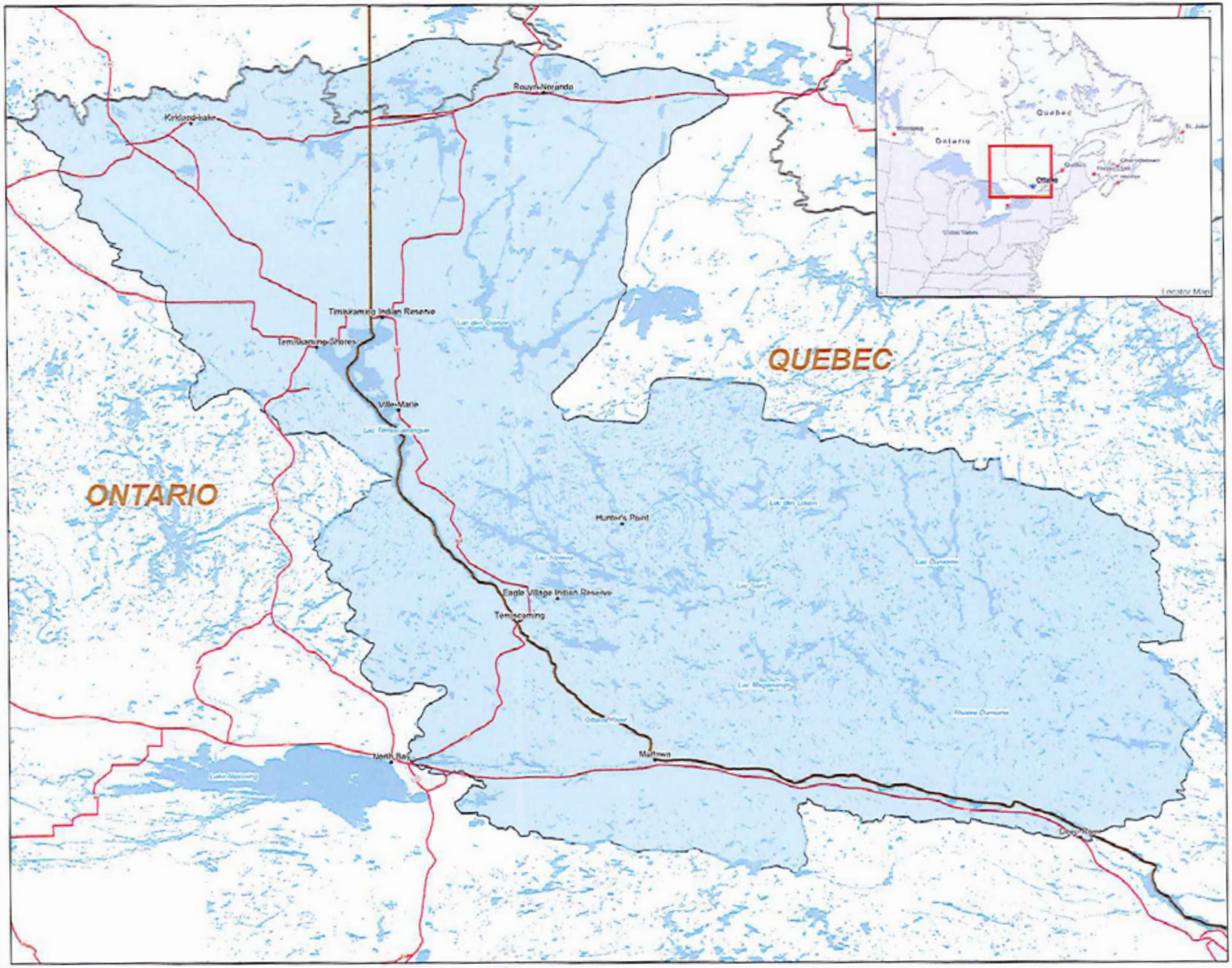


Appendix 3

KIPAWA

Appendix 3: Questionnaire on Lake Kipawa Concerted Management Plan

Number of respondents: 8/18. Author's note: the respondents' answers were grouped to develop the following text.

The purpose of this questionnaire is to allow improving our work, do not hesitate to provide your comments and the points to be repeated or avoided in other similar processes.

- **What did you think of the process to elaborate the Lake Kipawa Concerted Management Plan as a whole?**

👍 Majority: good work, positive and necessary process for the lake, well organised and ambitious. All important points were addressed thanks to the possibility for everyone to participate.

👎 One respondent: evening meetings were long and not very productive.

Another respondent: we can question the scope of the Plan since there were no commitments by those in charge.

- **Do you have any comments on the following phases that lead to the Concerted Management Plan?**

  - **Public consultation**

👍 All satisfied.

👎 One respondent: maybe a bit controlled. One respondent: all lake users were not informed. Two other respondents: the public consultation meeting should be organised with more information (later in the process), to demonstrate the seriousness of group work.

  - **Membership and appointment method for the Consultative Committee**

👍 Appointment method was satisfactory, except for one person

👎 Majority: too many representatives (particularly concerning citizens), certain representatives were missing (e.g. forest sector).

  - **Document content and proofreading by the Consultative Committee**

👍 Very good (comments were all positive)

  - **Organisation of Consultative Committee meetings (number, time, meals, etc.)**

👍 Good organisation according to all respondents

👎 Majority of respondents: meetings too long, certain discussions were too long on the same topic.

- **What were the positive points in the project? (what should be done again should a similar process be repeated)**

👍 The opportunity for all to express their views in mutual respect, and First Nations' involvement. The process allowed bringing all the territory issues together in a clear manner.

- **What were the weaknesses in the process? (things to avoid in the future)**

👎 No guarantee as to the project follow-up. Perhaps too many participants on the Committee, particularly people with personal interests.

One representative: lack of content on certain subjects to allow for discussions based on facts.

- **Was the Organisme de bassin versant du Témiscamingue the right organisation to draft the plan and organise the consultations? Do you have any comments on the quality of their work?**

👍 Generally, very positive answers on the choice of the project manager, which was the best choice, particularly because of their neutrality and the responsiveness shown by the organisation.

One representative: the participation of researchers and specialists would have been a plus to support the OBVT and have stronger knowledge.

- **Other general comments?**

👍 Many congratulations for the work accomplished.

👎 Need for project continuity to avoid having devoted time and efforts for nothing. Identify means for the actions' prioritisation and implementation. Avoid using the Management Plan as a simple road map without any follow-up. Make sure to maintain Lake Kipawa's ecological integrity.

Appendix 4

KIPAWA

Ministère
des Ressources
naturelles
Québec

C

Rapport final du zonage de la bande riveraine : lac Kipawa

#850-2003–004

Table des matières

1. Introduction

D'une superficie de 300 km², le lac Kipawa se situe à une dizaine de kilomètres à l'est du lac Témiscamingue, au nord-est de la ville de Témiscaming. Le toponyme, d'origine algonquine, identifie principalement une grande nappe d'eau. Le nom du lac a été orthographié de multiples façons avant que la variante Kipawa ne soit officialisée : Kippawa, Kippewa, Kepawa, Keepawe (1884), Kipawe, Kipakowe, Kipahowe. L'expression algonquine signifie « c'est fermé » ou « c'est bouché ». Cette nappe d'eau, qui couvre cinq cantons, est un véritable labyrinthe constitué de grandes baies (Chemagan, des Plongeurs, du Huard, Dorval, Pratt, des Anglais, Campbell) et d'îles (McKenzie, aux Ours). Le lac forme, avec plusieurs autres nappes d'eau de grande dimension, un système hydrographique autonome. Les compagnies forestières s'attaquent vers 1850 aux belles forêts de pins blancs et rouges du Kipawa. Cette région forestière devient, à la fin du XIXe siècle, le royaume de la J. R. Both Lumber, compagnie encore en activité aujourd'hui dans la région. Au Québec, le toponyme désigne officiellement, outre le lac, une rivière, une municipalité, une baie, un barrage, une zone d'exploitation contrôlée (zec) et un chenal. La rivière Kipawa prend sa source dans la baie de Kipawa du lac Dumoine; elle coule ensuite vers l'ouest jusqu'aux lacs McLachlin, Grindstone, Hunter et Kipawa, puis poursuit sa course avant de se jeter dans le lac Témiscamingue. Le barrage de Kipawa, construit au début du XXe siècle pour alimenter l'usine et la ville de Témiscaming en électricité, se trouve à l'embouchure du ruisseau Gordon, à proximité de la municipalité de Kipawa. Le toponyme désigne aussi la zec qui entoure le lac Kipawa, devenu un réservoir à la suite de la construction des barrages. La zec a d'abord été créée en réserve de chasse et de pêche en 1950; elle a une superficie de 4 636 km². On y accède par le hameau de Laniel, au nord, ou par la municipalité de Kipawa, au sud.

Ce document est un outil d'information; il dresse brièvement le portrait du lac Kipawa et décrit l'ensemble de ses caractéristiques. Il contient également la synthèse des données récoltées lors de la démarche de zonage riverain du plan d'eau. Élaboré conformément aux normes décrites au Guide de développement de la villégiature sur les terres du domaine public et au PRDTP, le zonage du lac Kipawa constitue une planification de sa mise en valeur à des fins récréotouristiques pour le bénéfice des populations. Il est à noter que le territoire considéré dans ce document correspond au lac Kipawa; ce rapport de zonage n'inclut pas les lacs Desquerac, Grindstone, Hunter's Point, Mclachlin, Audoin, Mungo, Hunter et Bedout, lacs qui font partie du territoire à caractère faunique Kipawa.

La collecte de données sur le terrain a été réalisée en septembre 1988 par une équipe de techniciens formée de Patrick Raymond et Daniel Riopel, puis validée en août 2004.

2. Localisation

Nom et numéro du secteur de développement (PRDTP) : 221 – Lac Kipawa

MRC :	Témiscamingue
Municipalité :	Béarn, Kipawa, Témiscaming, TNO Rivière-Kipawa
N^{o} du feuillet (1 : 20 000) :	31 L/14
Coordonnées :	Y- (nord) : 46° 53' 05"
- (Commission de toponymie)	X- (est) : 78° 58' 04"

3. Caractéristiques du plan d'eau

Superficie du lac :	300 km^2
Périmètre du lac :	695 km
Superficie du couloir riverain analysée :	153 km^2

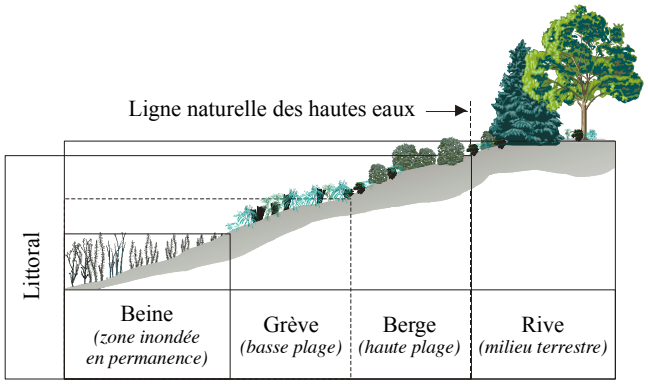
4. Description du milieu riverain

Beine : Dans la plupart des segments de l'étude, la beine se compose de sable, de cailloux d'une dimension de 120 mm et de souches d'arbres. Elle atteint une profondeur de 2 mètres. Toutefois, quelques segments se caractérisent par une pente plus douce et un sol composé de sable et de petits cailloux.

Grève : Dans l'ensemble des segments de l'étude, la grève est constituée de blocs d'une dimension de 30 cm à 40 cm et de roches en place d'une dimension moyenne de 120 mm. Toutefois, quelques segments se distinguent par une grève composée de sable et de pierres.

Berge : Peu définie le long du bassin hydrographique du lac Kipawa, la berge se situe juste avant la strate arborescente; on y trouve de la matière ligneuse sous forme d'arbustes, principalement de l'érable rouge, de l'aulne rugueux, du cerisier de Pennsylvanie et du noisetier à long bec. Les blocs et les roches en place constituent les principaux composants du dépôt de surface. C'est dans les baies (des Anglais, Clément, du Canard) que la berge est la plus profonde et la plus présente.

Rive : Le till mince (1AR) constitue le principal type de dépôt; elle contient de la matière organique. Vient ensuite un till épais (1A) avec présence de pierrosité de dimensions variables (gravier, cailloux et blocs). Les pentes sont parfois abruptes, mais surtout modérées, variant de 16 à 30 %, avec talus et zones d'érosion. Sur une partie importante du pourtour du lac, le drainage varie de bon (2) à modéré (3), et il est rapide (1) sur les affleurements rocheux. Dans ces secteurs s'ajoutent des zones marécageuses dispersées autour du lac. Quant au couvert forestier, il est difficile d'attribuer un seul type de peuplement forestier à une zone si diversifiée. On y trouve en général un peuplement mélangé à prédominance feuillue. Voici une énumération sommaire des essences forestières qui y sont observées : Bop, Err, Boj, Epb, Tho, Pir, Pib et Pru.



* Les sondages doivent être réalisés à 1,20 m de profondeur et à une distance de 30 à 65 m de la ligne naturelle des hautes eaux.

5. Accès

Le lac Kipawa propose deux accès aménagés : le quai fédéral situé dans le village de Laniel, à une heure de Ville-Marie; et le quai fédéral situé dans le village de Kipawa. Depuis quelques années, les chemins ayant été construits à des fins d'exploitation forestière ont permis à des villégiateurs d'accéder à leur terrain.

6. Synthèse des choix de zonage des segments riverains

Les numéros de segments apparaissent sur le plan de zonage présenté à l'annexe 1. Un astérisque (*) indique qu'une photo du segment se trouve à l'annexe 2.

Conservation : **C**
Hébergement : **H**
Accès public : **AP**

N° du segment riverain	**Choix de zonage** *(Après la visite sur le terrain)*	**Commentaires** *(Indiquer les principaux éléments qui motivent le choix de zonage)*
1	H	→ Cette zone se situe dans le périmètre urbain de Laniel. Ainsi, toute initiative d'aménagement en territoire public doit faire l'objet d'un plan d'affaires, qui doit être soumis au MRN pour analyse.
2	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente y est douce, variant de 9 à 15 %, et parfois plus abrupte. Le drainage est rapide (classe 1) sur les affleurements rocheux, mais mauvais dans les cuvettes. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier consiste en un peuplement mélangé à prédominance feuillue (Bop, Epb, Pir et Pig).
3	C	→ Le dépôt de surface est constitué d'un till épais (1A) composé de sable, de cailloux et de blocs. La pente est faible, parfois nulle (de 0 à 3 %). Le drainage est qualifié de modéré (classe 3) à imparfait (classe 4); dans les secteurs où il y a des affleurements rocheux, le drainage est rapide (classe 1). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier consiste en un

		peuplement mélangé à prédominance résineuse (Epb, Tho, Bop et Pet).
4	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, mais parfois plus abrupte. Le drainage est généralement bon (classe 2), mais il est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine est très profonde; la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier consiste en un peuplement mélangé à prédominance feuillue (Bop, Epb, Pir et Pig). → Présence d'une aire de repos et de baignade.
5	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec présence de sable, de cailloux et de blocs. La pente est nulle, variant de 0 à 3 %. Le drainage est qualifié de modéré (classe 3) à imparfait (classe 4); dans les secteurs avec affleurements rocheux, le drainage est rapide (classe 1). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier consiste en un peuplement mélangé à prédominance résineuse (Epb, Tho, Bop et Pet).
6	H	→ Zone de villégiature concentrée (baie McAdam). Aucune consolidation possible.
7	H	→ Le dépôt de surface est constitué d'un till épais (1A) avec présence de sable, de cailloux et de blocs. La pente est faible, variant de 4 à 8 %, mais elle plus abrupte par endroit. Le drainage est généralement bon (classe 2). **Ce segment est propice à la construction de huit (8) chalets.** → La beine, la grève et la berge sont composées de sable. Le couvert forestier consiste en un peuplement résineux (Pir, Pig, Bop et Epb).
8	H	→ Zone de villégiature concentrée (baie McAdam). Aucune consolidation possible.
9*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) avec présence d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, mais devient plus abrupte par endroit. Le drainage est rapide (classe 1) sur les affleurements rocheux. En raison de la nature inadéquate du sol, ce segment n'est pas approprié au développement de villégiature de tout type. → La beine est très profonde, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier consiste en un peuplement mélangé à prédominance feuillue (Bop, Epb, Pir et Pig).

10*	H	→ Le dépôt de surface est constitué d'une texture fine (sable et limon). La pente est douce, variant de 9 à 15 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La plage est sablonneuse et peu profonde. On y trouve deux chalets; la consolidation serait possible par l'ajout de **deux chalets** (chemin à proximité). Le couvert forestier est composé principalement de feuillus (Bop, Err, Ers et Epb).
11*	C	→ Présence de milieux humides. La nature du sol n'est pas adéquate. Ce segment est inapproprié au développement de villégiature de tout type.
11A	C	→ Le dépôt de surface est constitué d'une texture fine (sable) avec une pente supérieure à 30 %. Le drainage est bon (classe 2). Le couvert forestier est constitué de résineux ayant atteint maturité (Pir, Epb et Bop). → La grève et la berge sont composées de sable. → La présence de talus, l'érosion des berges et la forte inclinaison de la pente rendent ce segment inapproprié au développement de villégiature de tout type.
12*	C	→ Le dépôt de surface est constitué d'une texture moyenne (sable). La pente est douce, variant de 9 à 15 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. Le couvert forestier est composé principalement de résineux (Pir, Epb, Err, Ers et Bop). → La plage est composée de sable et de petits cailloux. → Ce segment est fragilisé par l'érosion des berges et par la présence de talus de 2 à 5 mètres, rendant ce segment inapproprié au développement de villégiature de tout type.
13*	C	→ Le dépôt de surface est constitué d'un till mince (1AR), d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, mais elle est plus importante par endroit. Le drainage est rapide (classe 1) sur les affleurements rocheux. → La beine est très profonde; la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier consiste en un peuplement mélangé à prédominance feuillue (Bop, Epb, Pir et Pig). → Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type.
14*	C	→ Le dépôt de surface est constitué d'une texture fine (sable). La pente est modéré dans les 20 premiers mètres (30 %); elle s'adoucit ensuite, atteignant 9 à 15 %. Le drainage est bon (classe 2) et la nappe phréatique se situe à plus de 1,2 mètre de profondeur. La grève et la berge sont composées de sable; on y trouve une plage parsemée de cailloux. Le couvert forestier est composé principalement de feuillus (Bop, Err, Ers et Epb). → Ce segment est fragilisé par l'érosion des berges; sur la grève, un talus de 5 mètres et des arbres font obstacle à l'accès au

		terrain, ce qui rend ce segment inapproprié à tout type de développement.
14A*	C	→ Le dépôt de surface est constitué d'une texture moyenne (sable). Ce segment est fragilisé par l'érosion des berges et par la présence de talus de 5 à 8 mètres. Le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. Le couvert forestier est composé principalement de feuillus (Bop, Err, Ers et Epb). → En raison de la présence de talus, ce segment est inapproprié au développement de villégiature de tout type.
14B*	C	→ Le dépôt de surface est constitué d'une texture moyenne (sable et limon). La pente est faible, variant de 4 à 8 %. Le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La plage est composée de sable et de cailloux. Le couvert forestier est composé principalement de feuillus (Bop, Err, Ers et Epb). → La nappe phréatique étant peu profonde, ce segment est inapproprié au développement de villégiature de tout type.
14C*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %; sur la grève, elle s'accentue par endroit. Le drainage est rapide (classe 1) sur les affleurements rocheux. La nature du sol rend ce segment inapproprié au développement de villégiature de tout type. → La beine est composée de blocs et de roches en place; il n'y a ni grève, ni berge. Le couvert forestier consiste en un peuplement mélangé à prédominance feuillue (Bop, Epb, Pir et Pig).
14D*	C	→ Le dépôt de surface est constitué d'une texture fine (sable). La pente est douce, variant de 9 à 15 %, et le drainage est bon (classe 2). → La beine, la grève et la berge sont composées de sable. Le couvert forestier est composé principalement de feuillus (Bop, Err, Ers et Epb). → Ce segment est fragilisé par l'érosion des berges; des talus de 6 mètres rendent ce segment inapproprié au développement de tout type.
14E*	C	→ Le dépôt de surface est constitué d'une texture fine (sable). La pente est douce, variant de 9 à 15 %, et le drainage est bon (classe 2). → La plage est composée de sable et de petits cailloux. Le couvert forestier est composé principalement de résineux (Pir, Epb, Err, Ers et Bop). → Ce segment, fragilisé par l'érosion des berges et caractérisé par la présence de talus de 2 à 4 mètres de hauteur, est inapproprié au développement de tout type.

14F*	AP	→ Le dépôt de surface est constitué d'une texture moyenne (sable). La pente est douce, variant de 9 à 15 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La plage est composée de sable et de cailloux. Ce segment est fréquenté par les plaisanciers**.** Le couvert forestier est composé principalement de feuillus (Bop, Err, Ers et Epb). → Ce segment offre un potentiel de mise en valeur à des fins d'accès public.
15*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 à 30 %; sur la berge, toutefois, elle est plus abrupte par endroit, atteignant une inclinaison de 41 % et plus. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier consiste en un peuplement mélangé à prédominance feuillue (Bop, Epb, Pir et Pig).
16*	AP	→ Le dépôt de surface est constitué d'une texture moyenne (sable et limon). La pente est douce, variant de 9 à 15 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La plage est composée de sable parsemé de cailloux. Le couvert forestier est composé principalement de résineux (Pib, Pir, Bop, Err et Ers). Ce segment est fréquenté par les plaisanciers. → Ce segment offre un potentiel de mise en valeur à des fins d'accès public.
17	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 à 30 %; sur la berge, elle atteint 60 % par endroit. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → Il y a présence de blocs et de roches en place sur la beine, la grève et la berge. Le couvert forestier est un peuplement mélangé à prédominance feuillue (Bop, Epb, Pir et Pig). → **Ce segment a un potentiel récréotouristique très intéressant pour le canot, le kayak et le camping rustique**. De plus, des falaises de roc atteignant jusqu'à 18 à 20 mètres de hauteur offrent des panoramas magnifiques (canal Baie).
18	C	→ Le dépôt de surface est constitué de sable et de gravier. Il y a un chemin forestier à proximité et un petit lac dans la bande riveraine. Ce segment est inapproprié au développement de

		villégiature de tout type, la bande riveraine étant insuffisamment profonde. → Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Pib, Bop et Epb).
19	H	→ Le dépôt de surface est constitué de sable et de gravier; la pente est modérée, variant de 16 à 30 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. Il y a un chemin forestier à proximité et un petit lac dans la bande riveraine. **Ce segment est propice à la construction de lieux d'hébergement commercial d'envergure ou à la consolidation de dix chalets** (chemin à proximité). → Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Pib, Bop et Epb).
20	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 à 30 %. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → Il y a présence de blocs et de roches en place sur la beine, la grève et la berge. Le couvert forestier est de type mélangé à prédominance résineuse (Pir, Pib, Bop et Epb).
21	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec pierrosité abondante de dimension variable (cailloux et blocs). La pente est modérée, variant de 16 à 30 %, et le drainage est qualifié de bon (classe 2) à modéré (classe 3). La nature du sol rend ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier est de type mélangé à prédominance résineuse (Pir, Pib, Bop et Epb).
22	H	→ Hébergement commercial existant.
23	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 à 30 %, et plus abrupte par endroit. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Epb, Pib, Pib et Bop).
24	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec pierrosité abondante de dimension variable (cailloux et blocs). La pente est nulle, variant de 0 à 3 %, et le drainage est

		imparfait (classe 4). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Pib, Bop et Epb).
25	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec pierrosité abondante de dimension variable (cailloux et blocs). La pente est modérée, variant de 16 à 30 %, et le drainage est qualifié de bon (classe 2) à modéré (classe 3). La nature du sol rend ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier est de type mélangé à prédominance résineuse (Bop et Epb).
26	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée; elle varie de 16 à 30 % sur les 20 premiers mètres, puis elle s'adoucit. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Pib, Epb, et Bop).
27	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec pierrosité abondante de dimension variable (cailloux et blocs). La pente est douce, variant de 9 à 15 %. Le drainage est qualifié de bon (classe 2) à modéré (classe 3). La nature du sol rend ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier est de type mélangé à prédominance feuillue (Bop et Epb).
28	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée; elle varie de 16 à 30 % sur les 20 premiers mètres, puis elle s'adoucit. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Pib, Epb, et Bop).
29	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec pierrosité abondante de dimension variable (cailloux et blocs).

		La pente est douce, variant de 9 à 15 %. Le drainage est qualifié de bon (classe 2) à modéré (classe 3). La nature du sol rend ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier est de type mélangé à prédominance feuillue (Bop et Epb).
30	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 à 30 %, mais atteint 40 % par endroit. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine est très profonde, et la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Pib, Epb, et Bop).
31	AP	→ Le dépôt de surface est constitué de sable et de gravier avec cailloux. La pente est modérée, variant de 16 à 30 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont constituées de sable et de gravier. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Epb et Bop). → Ce segment offre un potentiel de mise en valeur à des fins d'accès public.
31A	H	→ Le dépôt de surface est constitué de sable fin avec pierrosité. La pente est nulle, variant de 0 à 3 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable. **Ce segment est propice à la construction de lieux d'hébergement commercial d'envergure.** Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Epb et Bop).
32	AP	→ Le dépôt de surface est constitué de sable, de gravier et de cailloux (esker). La pente est modérée, variant de 16 à 30 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable et de gravier. **Ce segment est utilisé comme aire de repos par les plaisanciers.** Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Epb et Bop). → Ce segment offre un potentiel de mise en valeur à des fins d'accès public.
33A	H	→ Le dépôt de surface est constitué de sable et de gravier contenant peu de cailloux et de blocs. La pente est modérée,

		variant de 16 à 30 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable et de gravier. Ce segment est propice à la construction de **quinze chalets**. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Epb et Bop).
33	H	→ Le dépôt de surface est constitué de sable fin, dont le pourcentage de cailloux et de blocs est faible. La pente est douce, variant de 4 à 8 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable. **Ce segment est propice à la construction de lieux d'hébergement commercial d'envergure.** Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Epb et Bop).
34	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée; elle varie de 16 à 30 %, mais atteint parfois 60 % sur la berge. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine est très profonde, et la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Pib, Epb, et Bop).
35	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec pierrosité abondante de dimension variable (cailloux et blocs). La pente est nulle, variant de 0 à 3 %, et le drainage est imparfait (classe 4). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier est de type mélangé à prédominance résineuse (Sab, Epn et Epb).
36	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 à 30 % sur les 20 premiers mètres, puis s'adoucit. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Pib, Epb, et Bop).
37	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité abondante de dimension variable (cailloux et blocs). La pente est douce, variant de 9 à 15 %. Le drainage est

		qualifié de bon (classe 2) à modéré (classe 3). Ces caractéristiques rendent ce segment inapproprié au développement de la villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier est de type mélangé à prédominance feuillue (Bop et Epb).
38	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, mais modéré par endroit (16 à 30 %). Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine est très profonde, et la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de faible densité, est principalement composé de feuillus (Bop).
39	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est faible, variant de 4 à 8 %. Le drainage est rapide (classe 1) sur les affleurements rocheux. La nature du sol rend ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de densité moyenne, est de type mélangé à prédominance feuillue (Bop, Pet et Epb).
40	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 à 30 % sur les 20 premiers mètres, puis elle s'adoucit. Le drainage est rapide (classe 1) sur les affleurements rocheux. La nature du sol rend ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Pib, Epb, et Bop).
41	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité abondante de dimension variable (cailloux et blocs). La pente est douce, variant de 9 à 15 %. Le drainage est qualifié de bon (classe 2) à modéré (classe 3). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier est de type mélangé à prédominance feuillue (Bop et Epb).

42	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité abondante de dimension variable (cailloux et blocs). La pente est nulle, variant de 0 à 3 %. Le drainage est imparfait (classe 4). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable. Le couvert forestier est de type mélangé à prédominance feuillue (Bop et Epb).
43	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 à 30 % sur les 20 premiers mètres, puis elle s'adoucit. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de roche en place et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pib, Pib, Epb, et Bop).
43A	C	→ Présence de milieux humides. La nature du sol étant inadéquate, ce segment est inapproprié au développement de la villégiature de tout type.
44	AP	→ Le dépôt de surface est constitué de sable et de gravier à faible pourcentage de cailloux et de blocs. La pente est douce, variant de 9 à 15 %, mais elle est modérée par endroit (de 16 à 30 %). Le drainage est qualifié de bon (classe 2) à modéré (classe 3). → La beine, la grève et la berge sont composées de sable, de gravier et de cailloux. **Ce segment pourrait être utilisé comme aire de repos pour les plaisanciers**. Le peuplement forestier, de densité moyenne, est composé de feuillus (Bop et Epb). → Ce segment offre un potentiel de mise en valeur à des fins d'accès public.
45	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 et 30 %; sur la berge, toutefois, la pente peut atteindre 60 % par endroit. Le drainage, généralement modéré (classe 3), est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → Il y a présence de blocs et de roches en place sur la beine, la grève et la berge. Le couvert forestier est de type mélangé à prédominance feuillue (Bop, Epb, Pir et Pig).
46	H	→ Le dépôt de surface est constitué d'un till épais (1A), donc composée de sable et de gravier, et contient peu de cailloux et de blocs. La pente est faible, variant de 4 et 8 %, et le drainage

		est qualifié de bon (classe 2) à modéré (classe 3). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Il y a un chemin forestier à proximité de ce segment. **Possibilité d'offrir quinze (15) emplacements de villégiature dispersée.** Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pib, Boj et Sab).
47	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité moyenne de tailles diverses (gravier, cailloux et blocs). La pente est modérée, variant de 16 à 30 %; le drainage est bon (classe 2) et rapide (classe 1) sur les affleurements rocheux. La nature du sol rend ce segment inapproprié au développement de villégiature de tout type. → Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pet, Epb et Pib).
48	H	→ Le dépôt de surface est constitué d'un till épais (1A), contenant du sable et du gravier, mais peu de cailloux et de blocs. La pente est faible, variant de 4 à 8 %, et le drainage est qualifié de bon (classe 2) à modéré (classe 3). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. **Possibilité d'offrir de 10 à 15 emplacements de villégiature dispersée.** Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pib, Boj et Sab).
49	C	→ Le dépôt de surface est constitué d'un till mince (1AR), entrecoupé d'affleurements rocheux et de matière organique. La pente est abrupte, atteignant 41 %, voire davantage par endroit. Le drainage est mauvais (classe 4), mais rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont constituées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Pru).
50	C	→ Le dépôt de surface est constitué d'un till épais (2A) avec une pierrosité abondante de tailles diverses (gravier et cailloux). La pente est douce, variant de 9 à 15 %. Le drainage est modéré (classe 3). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont constituées de sable, de gravier et de blocs. Le couvert forestier, de densité moyenne, est de type mélangé à prédominance feuillue (Bop, Pet, Epb et Pib).
51*	C	→ Le dépôt de surface est constitué d'un till mince (1AR), entrecoupé d'affleurements rocheux et de matière organique.

		La pente est abrupte, atteignant 40 %, voire davantage par endroit; le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont constituées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Pru).
52	C	→ Le dépôt de surface est constitué d'un till épais (2A) avec une présence de pierrosité abondante de tailles diverses (cailloux et blocs). La pente est nulle, variant de 0 à 3 %. Le drainage est modéré (classe3). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de densité moyenne, est de type mélangé à prédominance feuillue (Bop, Epb et Tho).
53*	H	→ Villégiature concentrée (secteur de l'île Bronson). Aucune consolidation possible.
53A	AP	→ Le dépôt de surface est constitué d'un till épais (1A) composé de sable et de gravier. La pente est faible, variant de 4 à 8 %, et le drainage est modéré (classe 3). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable et de gravier. Il y aurait lieu de privilégier l'utilisation du site pour l'accès public. On y trouve une plage naturelle qui pourrait être mise en valeur. **Ce segment est utilisé de façon informelle comme aire de repos par les plaisanciers.** Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Epb et Bop). → Ce segment offre un potentiel de mise en valeur à des fins d'accès public.
54	C	→ Le dépôt de surface est constitué d'un till mince (1AR), entrecoupé d'affleurements rocheux et de matière organique. La pente est abrupte, atteignant 40 %, voire davantage par endroit; le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Bop, Pir, Pib et Pru).
54A*	H	→ Le dépôt de surface est constitué de sable fin avec une pierrosité. La pente est faible, variant de 4 à 8 % sur les 25 premiers mètres, puis devient modéré, atteignant de 9 à 15 %; le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable. Un

		petit marais, situé à l'est de ce segment, pourrait être mis en valeur. **Ce segment est propice à la construction de lieux d'hébergement commercial d'envergure.** Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir et Pib).
55	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité moyenne (sable, gravier et quelques blocs). La pente est nulle, variant de 0 à 3 %. Le drainage est qualifié de modéré (classe 3) à imparfait (classe 4). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable et de blocs. Le couvert forestier, de forte densité, est un peuplement mélangé à prédominance résineuse (Boj, Epb et Sab).
56	C	→ Le dépôt de surface est constitué d'un till mince (1AR), entrecoupé d'affleurements rocheux et de matière organique. La pente est abrupte, atteignant 40 %, voire davantage par endroit; le drainage est rapide (classe 1). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Pru).
56A*	H	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité moyenne (sable, gravier et quelques blocs). La pente est faible, variant de 4 % à 8 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable. **Ce segment est propice à l'aménagement de cinq (5) emplacements.** Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Boj, Pru, Bob et Tho).
57*	H	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité moyenne (sable, gravier et quelques blocs). La pente est nulle, variant de 0 à 3 %, ou faible par endroit, variant de 4 à 8 %). Le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable et de gravier. **Ce segment est propice à l'aménagement de huit (8) emplacements**. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Boj, Pru, Bob et Tho).
58	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité moyenne (gravier et blocs). La pente est douce, variant de 9 à 15 %. Le drainage est bon (classe 2).

		→ Sur la grève, un talus de 2 mètres empêche d'accéder au terrain. La beine, la grève et la berge sont composées de sable et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Boj, Epb et Sab). Ce segment, fragilisé par l'érosion des berges, est caractérisé par la présence de talus de 2 à 5 mètres, rendant ce segment inapproprié au développement de tout type.
58A	H	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité moyenne (sable, gravier). La pente est nulle, variant de 0 à 3 %, mais elle est faible par endroit, atteignant de 4 à 8 %; le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine est très profonde, et la grève et la berge sont composées de sable et de blocs. On note la présence d'un chemin forestier à proximité. **Ce segment est propice à l'aménagement de quinze (15) emplacements**. Le couvert forestier, de forte densité, est un peuplement mélangé à prédominance feuillue (Boj, Epb, Sab et Pru).
58B	H	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité forte (sable, gravier et quelques blocs). La pente est nulle, variant de 0 à 3 %, et faible par endroit, atteignant 4 à 8 %; le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine est très profonde, et la grève et la berge sont composées de sable et de blocs. Il y a présence d'un chemin forestier à proximité. **Ce segment est propice à l'aménagement de dix (10) emplacements**. Le couvert forestier, de forte densité, est un peuplement mélangé à prédominance feuillue (Boj, Epb, Sab et Pru).
58C	AP	→ Le dépôt de surface est constitué d'un till épais (1A) avec une forte pierrosité (sable, gravier et quelques blocs). La pente est nulle, variant de 0 à 3 %, ou faible par endroit, atteignant 4 à 8 %. Le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine est très profonde, et la grève et la berge sont composées de sable et de blocs. Il y a présence d'un chemin forestier à proximité. **Ce segment est propice à l'aménagement d'une rampe de mise à l'eau**. Le couvert forestier, de forte densité, est un peuplement mélangé à prédominance feuillue (Boj, Epb, Sab et Pru). → Ce segment offre un potentiel de mise en valeur à des fins d'accès public.
59*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est modérée, variant de 16 et 30 %, et forte par endroit, atteignant jusqu'à 40 %; le drainage est rapide (classe 1). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type.

		→ La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est un peuplement mélangé à prédominance feuillue (Boj, Bop, Pir, Pib et Pru).
60*	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité abondante (gravier et blocs). La pente est modérée, variant de 16 à 30 %, mais elle s'accentue par endroit, atteignant une inclinaison de 40 % et plus. Le drainage est qualifié de bon (classe 2) à modéré (classe 3). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est un peuplement mélangé à prédominance feuillue (Boj, Bop, Pir, Pib et Pru).
61	H	→ Cette zone se situe dans le périmètre urbain de Kipawa. Par conséquent, toute initiative d'aménagement en territoire public doit faire l'objet d'un plan d'affaires, qui doit être soumis au MRN pour analyse
62*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé de blocs, d'affleurements rocheux et de matière organique. La pente est abrupte, atteignant 40 %, parfois davantage; le drainage est qualifié de modéré (classe 3) à imparfait (classe 4), mais il est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Pru).
63	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité abondante (gravier et blocs). La pente est modérée, variant de 16 à 30 %, mais par endroit elle est supérieure à 40 %. Le drainage varie de bon (classe 2) à modéré (classe 3). → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de densité moyenne, est un peuplement mélangé à prédominance feuillue (Boj, Bop, Pir, Pib et Pru).
64	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est abrupte, atteignant 40 %, voire davantage par endroit; le drainage est imparfait (classe 4) et rapide sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de

		gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Pru).
65	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité abondante (gravier et blocs). La pente est modérée, variant de 16 à 30 %, mais elle est forte par endroit, atteignant 40 %. Le drainage est qualifié de bon (classe 2) à imparfait (classe 4). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de densité moyenne, est un peuplement mélangé à prédominance feuillue (Boj, Bop, Pir, Pib et Pru).
66	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est abrupte, atteignant 40 %, voire davantage par endroit; le drainage est imparfait (classe 4) et rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Pru).
67*	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité abondante (gravier et blocs). La pente est modérée, variant de 16 à 30 %, mais elle est forte par endroit. Le drainage varie de bon (classe 2) à modéré (classe 3). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine et la grève sont composées de sable et de gravier; la berge est composée d'affleurements rocheux. Le couvert forestier, de densité moyenne, est un peuplement mélangé à prédominance feuillue (Boj, Bop, Pir, Pib et Pru).
67A	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité forte (gravier et blocs). La pente est faible, variant de 4 à 8 %. Le drainage est qualifié de bon (classe 2) à modéré (classe 3). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est un peuplement mélangé à prédominance feuillue (Boj, Bop, Pir, et Sab).
68	H	→ Villégiature concentrée existante (baie Marquet). Aucune consolidation possible.
69*	H	→ Le dépôt de surface est constitué de sable et de gravier. La pente est nulle, variant de 0 à 3 %, mais pouvant atteindre une

		inclinaison de 15 % par endroit. Le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine est peu profonde, avec présence de blocs à quelques endroits. La grève et la berge sont composées de sable et de gravier. Il y a un chemin forestier à proximité. **Ce segment est propice à l'aménagement de 17 emplacements**. Le couvert forestier, de densité moyenne, est de type mélangé à prédominance feuillue (Boj, Bob et Err).
70*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, mais elle est abrupte par endroit, atteignant une inclinaison de 40 %; le drainage est généralement bon (classe 2), mais il est rapide (classe 1) sur les sommets. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. On y trouve une falaise de roc de plus de 9 mètres de hauteur. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Epb).
71*	C	→ Le dépôt de surface est constitué de sable, de graviers et de blocs La pente est douce, variant de 9 et 15 %, mais atteint une inclinaison supérieure à 30 % par endroit. Le drainage est qualifié de bon (classe 2) à rapide (classe 1). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable et de graviers. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Pib et Epb).
72*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, mais elle est supérieure à 40 % par endroit. Le drainage est généralement bon (classe 2), et il est rapide (classe 1) sur les sommets. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Epb).
72A*	H	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité faible (sable, gravier et blocs par endroit). La pente est faible, variant de 4 à 8 %, et le drainage est bon. → La beine, la grève et la berge sont composées de sable et de cailloux. **Possibilité d'offrir cinq (5) emplacements de villégiature dispersée.** Le couvert forestier, de densité moyenne, est composé de peuplement résineux (Pir et Pib).

73	C	→ Le dépôt de surface est constitué de sable et de gravier avec présence de blocs La pente est modérée, variant de 16 à 30 %, et atteint 30 % en bordure du lac. Le drainage est bon (classe 2). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Pib, Epb et Bop).
73A*	H	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité faible (sable, gravier et cailloux). La pente est faible, variant de 4 à 8 %, et le drainage est bon. La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine, la grève et la berge sont composées de sable et de gravier. **Possibilité d'offrir quatre (4) emplacements de villégiature dispersée (chemin saisonnier à proximité).** Le couvert forestier, de densité moyenne, est un peuplement mélangé (Epb, Epn, Bop, Ers et Err).
74*	C	→ Le dépôt de surface est constitué de sable et de gravier avec présence de blocs (2BD). La pente est douce, variant de 9 à 15 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine est très profonde, et la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est composé d'un peuplement résineux (Pir, Pib, Epb et Bop).
75*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 8 à 15 %, et atteint par endroit plus de 30 %. Le drainage est généralement bon (classe 2). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Epb).
75A*	H	→ Le dépôt de surface est constitué de sable et de gravier. La pente est faible, variant de 4 à 8 %, et le drainage est bon (classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine est très profonde, et la grève et la berge sont composées de sable et de gravier**. Ce segment est propice à la construction de lieux d'hébergement commercial d'envergure ou à l'aménagement d'emplacements de camping sauvage**. Le couvert forestier, de forte densité, est composé de peuplements résineux (Pir et Pib).
75B*	H	→ Le dépôt de surface est constitué de sable et de gravier. La pente est douce, variant de 9 à 15 %. Le drainage est bon

		(classe 2). La nappe phréatique se situe à plus de 1,2 mètre de profondeur. → La beine est très profonde, et la grève et la berge sont composées de sable et de gravier**. Ce segment est propice à la construction de lieux d'hébergement commercial**. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Pib, Epb et Bop).
76	C	→ Le dépôt de surface est constitué de sable, de gravier et de blocs (2BD). La pente est modérée, variant de 16 à 30 %, atteignant cette limite supérieure en bordure du lac surtout. Le drainage varie de bon (classe 2) à rapide (classe 1). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est de type mélangé à prédominance résineuse (Pir, Pib, Epb et Bop).
77*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, et par endroit, elle est supérieure à 40 %. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Epb).
78*	C	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité abondante (sable et blocs). La pente est faible, variant de 4 à 8 %, mais elle est supérieure à 30 % par endroit. Le drainage est qualifié de bon (classe 2) à modéré (classe 3). Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de sable, de gravier et de blocs. Le couvert forestier, de forte densité, est un peuplement résineux (Pir, Pib, et Epb).
79*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, mais elle est parfois supérieure à 30 %. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pib et Epb).

80*	H	→ Le dépôt de surface est constitué d'un till épais (1A) avec une pierrosité faible de dimension variable (sable, gravier et quelques blocs). La pente est faible, variant de 4 à 8 %. La nappe phréatique se situe à plus de 1,2 mètre de profondeur. Le drainage varie de bon (classe 2) à modéré (classe 3). → La beine est très profonde, et la grève et la berge sont composées de sable et de blocs. **Ce segment est propice à l'aménagement de cinq (5) emplacements**. Le couvert forestier, de faible densité, est un peuplement mélangé à prédominance résineuse (Epb, Bop, Sab et Pir).
81	H	→ Zone de villégiature concentrée (baie Stenhouse). Aucune consolidation possible.
81b	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, parfois davantage. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pig et Epb).
82*	C	→ Le dépôt de surface est constitué d'un till mince (1AR) entrecoupé d'affleurements rocheux et de matière organique. La pente est douce, variant de 9 à 15 %, mais parfois elle est supérieure à 30 %. Le drainage est rapide (classe 1) sur les affleurements rocheux. Ces caractéristiques rendent ce segment inapproprié au développement de villégiature de tout type. → La beine, la grève et la berge sont composées de blocs et de roches en place. Le couvert forestier, de forte densité, est de type mélangé à prédominance feuillue (Bop, Pir, Pig et Epb).

Les choix de zonage affectent la totalité de la bande riveraine (300 m).

7. Tableau synthèse du zonage

Les pourcentages réels portent uniquement sur le territoire à l'étude (couloir riverain du lac étudié d'une profondeur de 300 m).

Zone[1]	Superficie après visite terrain	Répartition % des zones	% réel couloir riverain total	% réel zone aménageable
Couloir riverain *Superficie totale du couloir riverain, **avant fractionnement***	153 km^2	100 %		
Zone de conservation *Minimum 25 % du **couloir riverain total***	134 km^2	88 %		
Zone aménageable (accès public + villégiature) *Partie du couloir riverain **excluant la zone conservation***	18,64 km^2	12 %		
→ ***Zone de villégiature*** *(maximum 60 % du **couloir riverain total**)*	17,816 km^2		11 %	
→ ***Zone d'accès public*** *(minimum 15 % de la **zone aménageable**)*	0,824 km^2			4 %*

* Fait uniquement référence à la zone aménageable; **ne s'additionne pas** aux autres pourcentages.

8. Recommandations

En conclusion, quelques rares secteurs répondent aux normes d'implantation de villégiature et présentent un très bon potentiel de construction de lieux d'hébergement commercial (6 secteurs pouvant accueillir des constructions d'envergure), de villégiature privée concentrée (plus de 100 emplacements) ou de villégiature dispersée (environ 10 emplacements).

Par ailleurs, la faible proportion de zone réservée à des fins d'accès public amène le MRN à proposer les segments 14f, 16, 31, 32, 44, 53a comme « zone réservée à des fins d'accès public ». Ainsi, ces segments pourraient permettre la mise en place d'activités récréotouristiques comme les suivantes : camping rustique, camp rustique (refuge), aire de pique-nique, plage aménagée, rampe de mise à l'eau.

La présence du parc national d'Opémican, de la réserve de biodiversité d'Opémican projetée, de plusieurs plages naturelles, de falaises et de milieux humides pourraient constituer des éléments à mettre en valeur afin de favoriser le développement

[1] Se référer au « Guide de développement de la villégiature » pour des définitions plus complètes.

récréotouristique (observation de la faune, interprétation de la faune et de la flore, sentier d'interprétation, belvédère, etc.).

En ce qui concerne les autres segments faisant partie du territoire à l'étude, l'analyse et les sondages démontrent qu'ils se composent principalement d'un till mince, dont l'épaisseur moyenne se situe entre 25 cm et 1 mètre (1AR), jumelé d'affleurements rocheux. À l'intérieur, on observe la présence de cuvettes formant des dépôts organiques. La pente varie de 9 à 15 %, mais elle est plus abrupte par endroit. La beine, la grève et la berge sont composées de cailloux, de roches en place et de blocs. Le couvert forestier est de type mélangé à prédominance de résineux (Pib, Pir, Epb Bop et Pet) et il est de forte densité. Le dépôt de surface de ces segments est constitué d'un till épais (1A), dont l'épaisseur moyenne est supérieure à 1 mètre. Il est composé de sable, de cailloux et de blocs, qui sont abondants par endroit. La pente, qui varie de 8 à 15 %, s'accentue en profondeur, pouvant atteindre 40 %. La plupart de ces segments ne sont pas accessibles par voie terrestre.

Ces types de sols ne répondent pas aux normes du ministère des Ressources naturelles (MRN) en matière de développement de villégiature, conformément au Guide de développement de la villégiature sur les terres du domaine public; ils font partie de la zone de conservation. Dans ces conditions, l'étude de la rive du lac Kipawa démontre qu'elle offre très peu de possibilités pour l'implantation de constructions commerciales à des fins d'hébergement et de villégiature privée. Néanmoins, une municipalité, la MRC ou un promoteur qui souhaiteraient aménager des segments identifiés « zone de conservation » devraient fournir, au MRN, un rapport d'étude favorable à l'installation d'un système de traitement des eaux usées, conformément au Règlement sur l'évacuation et le traitement des eaux usées des résidences isolées (Q-2,r.22).

Le présent rapport sera fourni au comité spécifique de concertation du lac Kipawa. Créé dans le cadre de l'élaboration d'un plan de gestion concerté, ce comité se servira du rapport comme base de discussion dans un processus de concertation visant à produire un plan de développement propre au lac Kipawa.

Annexe 1 : Cartographie du zonage récréotouristique

Annexe 2 : Photographies des segments riverains

	Vue générale
	Accès public au village de Laniel

	Segment 9
	Segment 10

	Segment 11
	Segment 12
	Segment 13

	
	Segment 14

	Segment 14A
	Segment 14B
	Segment 14C

	
	Segment 14D

	Segment 14E
	Segment 14F

	Segment 15
	Segment 16

	Segment 17A
	Segment 17A

	Segment 17A
	Île 100

	Segment 51
	Segment 53

	Segment 54A
	Segment 56A

	Segment 57
	Segment 59

	Segment 60
	Segment 62

	Segment 67
	Segment 67A
	Segment 69

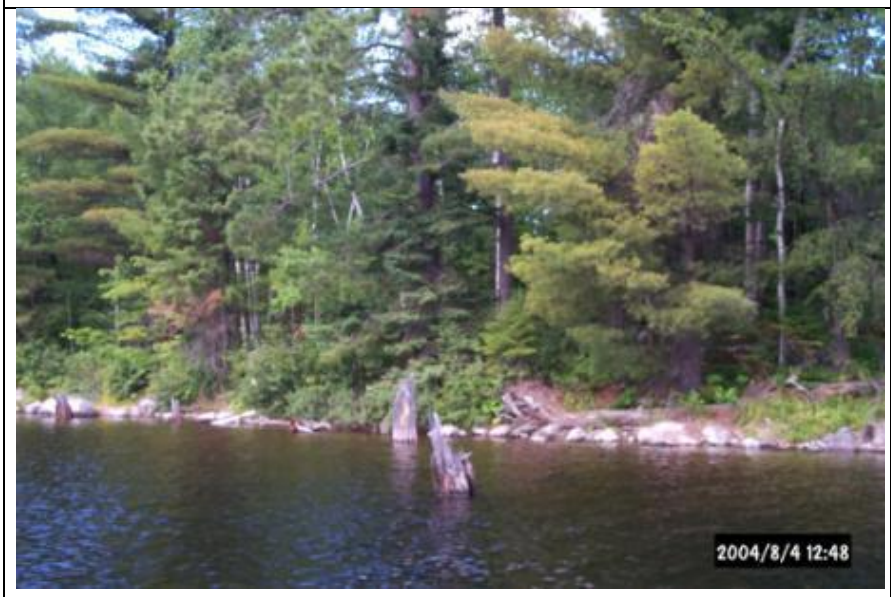
Segment 69

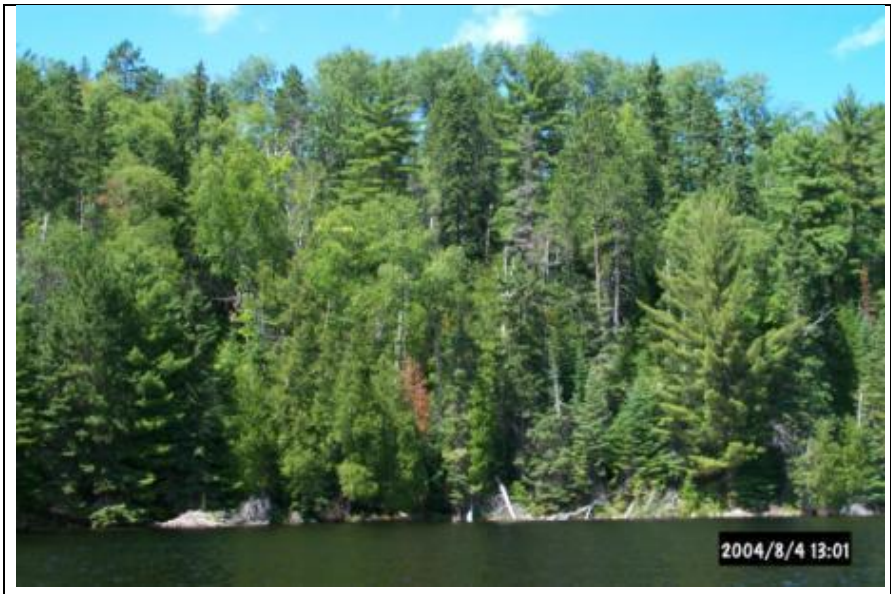
C

	Segment 69
	Île 7

	Segment 70
	Segment 71

	Segment 72
	Segment 72A

	Segment 73A
	Segment 74

	Segment 75
	Segment 75A

	Segment 75B
	Segment 77
	Segment 78

	
	Segment 79
	Segment 80

	
	Segment 82

Appendix 5

KIPAWA

Appendix 5: Main regulations in Laniel residential development around Lake Kipawa.
(Source: Laniel Municipal Committee)

SIZE OF MAIN BUILDING:

The main building must have a minimum habitable surface area (floor area) of 53.7 square metres (580 square feet) for residences.

MAIN BUILDING LAYOUT:

The main building must be located more than 15 metres (50 feet) from the natural high water line.

SIZE OF SECONDARY BUILDINGS:

Secondary buildings including storage sheds, hangars, garages, car ports and greenhouses must comply with the following criteria:

- The combined area of secondary buildings, annexes and accessory buildings must not exceed 10% of the lot's surface area.
- A maximum of 3 secondary buildings per property
- The height of the secondary buildings' must not exceed the height of the main building.

SECONDARY BUILDING LAYOUT:

Secondary buildings must be located more than 10.5 metres (35 feet) from the natural high water line and 1 metre (3.3 feet) from any lot line outlining the property.

Gazebos and decks may be located at less than 1 metre (3.3 feet) from the natural high water line, provided they comply with the following conditions:

-rest on pilings (the floor must not be in contact with the soil)

-have a maximum area of 18.5 square metres (200 square feet)

-the walls must not exceed a height of 1 metre (3.3 feet)

-the building must have an aesthetic look and not deface the surrounding landscape

Important phone numbers:

Martial Perreault, municipal inspector, Laniel, 819-634-2066

Susie Trudel, municipal manager, 819-634-3123

Henri Laforest, septic system consultant, 819-634-3612

BOATHOUSE SIZE:

Boathouses must comply with the following conditions:

-maximum length: 10 metres (33 feet) or 10% of the water body width

-maximum width: 8 metres (26.4 feet)

-Maximum height: 2.5 metres (8.3 feet)

- That provincial, federal and municipal regulations are complied with.
- The boathouse must not impede free circulation.
- One boathouse per property
- The construction of boathouses is allowed in all sectors of Lake Kipawa within Laniel's limits.
- The boathouse must have a roof only (sides open).
- Materials used for roof must be new and permitted materials are: pre-painted sheet metal, asphalt shingles, canvas or vinyl.

DOCK CONSTRUCTION:

A permit is required for building a dock. For new constructions, only floating docks, pillared or piled docks are permitted. If the dock exceeds 20 m^2, permission from the Centre hydrique du Québec is required in addition to the municipal permit.

PERMIT OR AUTHORISATION FOR WORKS ON BANKS AND LITTORAL ZONE:

For all constructions, works and all works likely to destroy, modify the banks' vegetation cover, or to bare the soil, or affect its stability, or encroaching on the littoral zone, an authorisation or permit must be obtained from the municipality or the government.

However, the following constructions and works related to vegetation may be permitted:

Pruning and trimming required to make a 5 metre (16 feet) opening, when the bank slope is over 30%, as well as to cut a trail or build stairs providing access to the water body. However, the stairs width must not exceed 2.4 metres (7.8 feet) and rest on pilings on most of its length, so as to allow vegetation to grow under it.

SEPTIC SYSTEM:

Since January 2005, a new regulation on septic systems by the Ministry of Environment is effective. A soil survey, location plan and a recommendation for the septic system are mandatory.

Upon reception of this information, the municipal inspector will deliver a permit to install a septic system.

Appendix 6

Appendix 6: Survey about Lake Kipawa

Lake Kipawa is a designated wildlife habitat (territoire à caractère faunique). Thus, the government expects the various resource and territory management practices to strive to maintain the wildlife pool and to provide a favorable frame for future uses. Taking this into account, please answer the following questions:

Name of the person or organisation (and its representative):

_____

If you wish to be reached

Phone:

Email:

What are your concerns regarding Lake Kipawa?

_____

_____

_____

_____

_____

Should Kipawa lake be developed?

Yes ☐ No ☐

If so, how do you envision the development of the Lake?

_____

_____

_____

_____

If not, Why?

_____

_____

_____

_____

You can join this survey by mail, email or fax. See at the bottom of the page. Same survey is available directly at: http://obvt.ca/kipawa. If you have any question, just contact us.

Appendix 7

KIPAWA

Appendix 7: Results of the Evaluation of the Importance of the Actions for the Consultative Committee

Actions	Scale: 0, Disagree. 1, Not important. 2, Slightly important. 3, More or less important. 4, Important. 5, Very important.													**Total**	**Score**
1. Design, produce and disseminate awareness development tools for the public and visitors (water quality, invasive exotic species, fishing and fish populations, boating) by 2017	4	4	5	5	5	4	4	3	4	5	5	5	5	**58**	5/17
2. Develop a sampling and monitoring plan for water quality and invasive exotic species by 2015	5	4	4	5	5	4	4	4	4	5	5	5	5	**59**	4/17
3. Secure a resource person assigned to maintaining a committee in order to ensure the project follow-up and the action plan implementation by 2014	5	5	4	5	5	4	5	4	5	5	5	5	5	**62**	2/17
3.1. Propose a review of Lake Kipawa zoning plan with this committee	4	5	4	5	5	3	5	3	4	5	4	3	4	**54**	9/17
4. Implement a monitoring and compliance strategy for all shoreline residences (sceptic tanks, shoreline buffer strips) by 2016	5	4	5	5	5	5	5	5	5	5	5	5	5	**64**	1/17
5. Reassess the relevancy of the moratorium towards cottage development (permanent and seasonal residency) following the recommendations of a Management Committee by 2017	4	5	4	5	5	3	4	4	4	4	4	3	3	**52**	11/17
6. Enforce regulations upon occupants without permit or title by 2017	5	5	4	5	1	4	5	5	5	3	5	5	3	**55**	8/17
7. Propose to the MRC and municipalities additional control measures for vacationing on private land by 2017, taking into account the spirit and intent of the Concerted Management Plan regarding development	4	3	4	5	4	4	4	4	3	5	5	4	5	**54**	9/17
8. Assess the relevancy and feasibility of creating a Community Wildlife Area (CWA) by 2014	4	5	2	4	4	5	5	4	5	5	3	3	5	**54**	9/17
9. Should the CWA prove not to be an option, define in collaboration with a management committee the necessary actions to achieve the fish management objectives of a CWA	5	5	2	5	5	4	4	4	4	5	5	5	4	**57**	6/17

Actions	Scale: 0, Disagree. 1, Not important. 2, Slightly important. 3, More or less important. 4, Important. 5, Very important.													Total	Score
10. Document the effects of modifying the fall drawdown on lake trout populations and adapt the measures if necessary. Furthermore, hold annual meetings between the *Centre d'expertise hydrique du Québec* and a management committee on this matter	5	4	4	5	5	3	5	3	4	5	5	5	5	**58**	5/17
11. Meet with First Nations to assess subsistence fish harvesting and be able to integrate them into fishing management by 2016	4	3	4	5	5	3	5	4	4	3	5	3	5	**53**	10/17
12. Conduct a survey on lake users by 2017	3	4	3	5	5	2	4	3	3	5	5	3	5	**50**	13/17
13. Install buoys to reduce speed and number of users in residential or high-use sectors by 2017	3	3	3	4	5	3	5	3	3	3	4	3	3	**45**	16/17
14. Allow project development for pleasure boating activities provided they are well supervised and in agreement with a management committee (ex.: Marina with pumping station and infrastructures allowing to obtain the Eco-marina certification)	3	4	4	5	5	4	5	3	5	5	5	3	4	**55**	8/17
15. Select boat launching ramps to be prioritised, equip them with septic pumping stations and incite people to use these ramps in priority by 2016	4	5	4	5	5	4	5	5	4	5	5	5	4	**60**	3/17
16. Evaluate the control measures for houseboats and ensure their enforcement by 2016	4	5	5	5	5	4	5	5	3	5	5	5	3	**59**	4/17
17. Promote low-impact boating activities	4	3	4	4	5	4	3	3	4	5	4	3	5	**51**	12/17
18. Install at least one boat washing station and implement incentive measures to use it by 2015	4	4	3	5	5	3	5	4	4	5	5	5	4	**56**	7/17
19. Assess the feasibility of making boat washing mandatory by 2017	4	4	3	5	5	3	5	4	4	5	5	5	5	**57**	6/17
22. Maintain and apply the moratorium to outfitting establishments and cottage accommodation companies	4	5	3	4	5	4	5	4	4	3	3	5	3	**52**	11
23. Draw a profile of the outfitting establishments active on Lake Kipawa by 2015	5	5	3	5	5	3	5	4	4	5	4	3	5	**56**	7/17
25. Implement a control and compliance strategy for commercial buildings (septic tanks, buffer strips) by 2016	5	4	4	5	5	5	5	5	5	5	4	5	5	**62**	2/17

Actions	Scale: 0, Disagree. 1, Not important. 2, Slightly important. 3, More or less important. 4, Important. 5, Very important.													**Total**	**Score**
Non-consensus Actions														**Total**	**No classification for these actions**
20. Refuse hydro development projects	5	5	3	4	5	4	5	0	5	0	0	5	5	**46**	
21. Control industrial activities in order to minimise their impact	5	5	4	5	5	0	0	5	5	5	5	5	0	**49**	
24. Refuse hydro development projects	3	0	0	0	5	5	0	0	4	0	0	5	5	**27**	

Appendix 8

Appendix 8: Proportion of choices for each action (0, Disagree. 1, Not important. 2, Slightly important. 3, More or less important. 4, Important. 5, Very important) for a total of 13 participants.

	0 (Disagree)		1 (Not important)		2 (Slightly important)		3 (More or less important)		4 (Important)		5 (Very important)	
	Number	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**
1. Design, produce and disseminate awareness development tools for the public and visitors (water quality, invasive exotic species, fishing and fish populations, boating) by 2017	0	0%	0	0%	0	0%	1	8%	5	38%	7	54%
2. Develop a sampling and monitoring plan for water quality and invasive exotic species by 2015	0	0%	0	0%	0	0%	0	0%	6	46%	7	54%
3. Secure a resource person assigned to maintaining a committee in order to ensure the project follow-up and the action plan implementation by 2014	0	0%	0	0%	0	0%	0	0%	3	23%	10	77%
3.1. Propose a review of Lake Kipawa zoning plan with this committee	0	0%	0	0%	0	0%	3	23%	5	38%	5	38%
4. Implement a monitoring and compliance strategy for all shoreline residences (sceptic tanks, shoreline buffer strips) by 2016	0	0%	0	0%	0	0%	0	0%	1	8%	12	92%
5. Reassess the relevancy of the moratorium towards cottage development (permanent and seasonal residency) following the recommendations of a Management Committee by 2017	0	0%	0	0%	0	0%	3	23%	7	54%	3	23%
6. Enforce regulations upon occupants without permit or title by 2017	0	0%	1	8%	0	0%	2	15%	2	15%	8	62%

	0 (Disagree)		1 (Not important)		2 (Slightly important)		3 (More or less important)		4 (Important)		5 (Very important)	
	Number	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**
7. Propose to the MRC and municipalities additional control measures for vacationing on private land by 2017, taking into account the spirit and intent of the Concerted Management Plan regarding development	0	0%	0	0%	0	0%	2	15%	7	54%	4	31%
8. Assess the relevancy and feasibility of creating a Community Wildlife Area (CWA) by 2014	0	0%	0	0%	1	8%	2	15%	4	31%	6	46%
9. Should the CWA prove not to be an option, define in collaboration with a management committee the necessary actions to achieve the fish management objectives of a CWA	0	0%	0	0%	1	8%	0	0%	5	38%	7	54%
10. Document the effects of modifying the fall drawdown on lake trout populations and adapt the measures if necessary. Furthermore, hold annual meetings between the *Centre d'expertise hydrique du Québec* and a management committee on this matter	0	0%	0	0%	0	0%	2	15%	3	23%	8	62%
11. Meet with First Nations to assess subsistence fish harvesting and be able to integrate them into fishing management by 2016	0	0%	0	0%	0	0%	4	31%	4	31%	5	38%
12. Conduct a survey on lake users by 2017	0	0%	0	0%	1	8%	5	38%	2	15%	5	38%
13. Install buoys to reduce speed and number of users in residential or high-use sectors by 2017	0	0%	0	0%	0	0%	9	69%	2	15%	2	15%
14. Allow project development for pleasure boating activities provided they are well supervised and in agreement with a management committee (ex.: Marina with pumping station and infrastructures allowing to obtain the Eco-marina certification)	0	0%	0	0%	0	0%	3	23%	4	31%	6	46%

	0 (Disagree)		1 (Not important)		2 (Slightly important)		3 (More or less important)		4 (Important)		5 (Very important)	
	Number	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**	**Number**	**Percentage**
15. Select boat launching ramps to be prioritised, equip them with septic pumping stations and incite people to use these ramps in priority by 2016	0	0%	0	0%	0	0%	0	0%	5	38%	8	62%
16. Evaluate the control measures for houseboats and ensure their enforcement by 2016	0	0%	0	0%	0	0%	2	15%	2	15%	9	69%
17. Promote low-impact boating activities	0	0%	0	0%	0	0%	4	31%	6	46%	3	23%
18. Install at least one boat washing station and implement incentive measures to use it by 2015	0	0%	0	0%	0	0%	2	15%	5	38%	6	46%
19. Assess the feasibility of making boat washing mandatory by 2017	0	0%	0	0%	0	0%	2	15%	4	31%	7	54%
22. Maintain and apply the moratorium to outfitting establishments and cottage accommodation companies	0	0%	0	0%	0	0%	4	31%	5	38%	4	31%
23. Draw a profile of the outfitting establishments active on Lake Kipawa by 2015	0	0%	0	0%	0	0%	3	23%	3	23%	7	54%
24. Implement a control and compliance strategy for commercial buildings (septic tanks, buffer strips) by 2016	0	0%	0	0%	0	0%	0	0%	3	23%	10	77%
Non-consensus Actions												
20. Refuse new industrial projects within a 300-metre buffer strip	3	23 %	0	0%	0	0%	1	8%	2	15%	7	54%
21. Control industrial activities in order to minimise their impact	3	23 %	0	0%	0	0%	0	0%	1	8%	9	69%
24. Refuse hydro development projects	7	54 %	0	0%	0	0%	1	8%	1	8%	4	31%

Appendix 9

KIPAWA

OBVT
Organisme de bassin versant du Témiscamingue

Fiche technique du Plan de gestion concertée du lac Kipawa

La sensibilisation sur le lac Kipawa

Des sujets de sensibilisation nécessaires

- **La pêche et les populations de poissons**
- **Les espèces exotiques envahissantes, le lavage des bateaux**
- **La qualité de l'eau (pollution par les habitants et les plaisanciers, vidange septique des bateaux et pollution par hydrocarbures)**
- **Les habitations (traitement des eaux et impacts sur les berges)**
- **La tranquillité et la qualité de l'environnement**

Les acteurs qui peuvent s'impliquer

- **Organisme de bassin versant du Témiscamingue**
- **Municipalités**
- **Commerces locaux**
- **Bureaux d'information touristique**
- **Associations de riverains**
- **Pourvoyeurs**

Plusieurs moyens pour parvenir à sensibiliser les utilisateurs

Tous les outils de sensibilisation devront être produits en anglais et en français pour rejoindre tous les utilisateurs du lac Kipawa.

- **Panneaux de sensibilisation aux endroits stratégiques**

- Aux descentes de bateaux non organisées (voir la fiche sur les rampes de mise à l'eau et les éco-marinas) pour orienter vers les accès sélectionnés
- Aux descentes de bateaux organisées (Laniel et Kipawa) : panneaux contenants les sujets de sensibilisation décrits dans la première section de cette fiche
- Aux points d'entrée (Chemin Kipawa avant d'arriver à Kipawa et route 101 avant Laniel) : panneaux d'information générale rapide. Le lac Kipawa : "vous êtes sur le point de visiter un joyau du Témiscamingue ! Prenez-en soin".

Coût indicatif : les principaux coûts sont associés à la définition du contenu et au design graphique, ensuite, l'impression d'un panneau coûte ensuite 150 $ à imprimer (exemple pour support aluminium, 24''*36'').

- **Brochures à disposition de tous**

Une liste de brochures qui pourraient être accessibles gratuitement par l'intermédiaire de l'OBVT est donnée dans l'encadré ci-dessous.

Les brochures qui pourraient être placées dans les distributeurs :

- Guide sur la pêche responsable
- Poissons-appâts : nouvelle réglementation ;
- Espèces aquatiques envahissantes, ne prenez pas d'intrus sur le pouce ;
- Algues bleu-vert : agissez avec prudence ;
- Plantation et entretien d'une bande riveraine ;
- Guide pratique pour les quais et les abris à bateaux ;
- D'autres dépliants sont à trouver en fonction des besoins.

Celles-ci pourraient être regroupées au sein d'un distributeur dans les points stratégiques : municipalités, pourvoiries, offices touristiques, commerces locaux volontaires. Le contenu du distributeur est à ajuster en fonction de l'endroit.

Coût indicatif d'un distributeur : au maximum 200 $ par distributeur (pour des distributeurs muraux en plastique).

- ***Chroniques dans les médias***

Des chroniques écrites ou à la radio permettent de rejoindre un maximum d'intéressés. Elles pourraient être rédigées par une personne en charge de ce projet suivant les sujets pertinents.

Coût indicatif : Gratuit si accepté par les médias.

- ***Activités de sensibilisation***

Des activités réalisées par les organismes de sensibilisation présents sur le territoire pourraient être organisées sur demande et sur des thématiques bien précises (par exemple l'aménagement des bandes riveraines, l'entretien des fosses septiques).
Coût indicatif : Le coût repose sur un salaire horaire de préparation et de réalisation de l'animation et sont variables selon le type d'animation. Certains organismes peuvent charger entre 300 $ et 500 $ pour une soirée d'information.

- ***Carte du lac Kipawa orientée sur la sensibilisation***

La carte du lac Kipawa, communément diffusée dans les commerces locaux pourraient être un bon support pour aborder les sujets de sensibilisation décrits dans cette fiche. Par exemple, une entente avec Track Maps pourrait être conclue pour reproduire les brochures de sensibilisation à l'endos de la carte.

Coût indicatif : l'entreprise est ouverte à ce genre de partenariat qui pourrait être passé à faible coût. Le temps nécessaire au choix du contenu et au design du support s'y ajoutent.

Il est important d'assurer un suivi dans le temps pour s'assurer que les ces outils sont utilisés et renouvelés au besoin, l'OBVT peut fournir de nouvelles brochures par exemple.

Exemples et liens utiles :

- http://www.crelaurentides.org/
- http://www.abv7.org/index.php

OBVT
Organisme de bassin versant du Témiscamingue

Fiche technique du Plan de gestion concertée du lac Kipawa

Lutte préventive contre les espèces exotiques envahissantes

Une espèce exotique envahissante ?

Une espèce exotique envahissante (EEE) est une espèce animale ou végétale introduite **à l'extérieure de son aire de répartition naturelle** et qui a la capacité de se multiplier exponentiellement, souvent **au détriment des espèces locales**. Le lac Kipawa en est dépourvu selon nos connaissances actuelles, mais elles sont aux portes du Témiscamingue (Ontario, Rouyn-Noranda). L'important trafic en provenance de l'Ontario et des États-Unis, accompagnés d'embarcations potentiellement contaminées augmente les risques de propagation.

Une lutte très difficile

Comme elles sont absentes du lac Kipawa, une chance unique s'offre à nous de faire une lutte préventive. En effet, une fois qu'elles sont implantées dans le milieu, surtout dans les plans d'eau, il est quasiment impossible de les déloger.
Des effets néfastes, tant économiques qu'écologiques, sont bien souvent observés à la suite de leur arrivée :

- **Lacs rendus impropres aux activités récréatives ;**
- **Frais pour la lutte contre ces espèces ;**
- **Incidences directes et indirectes sur la santé humaine ;**
- **Réduction de la valeur des propriétés ;**
- **Modification des milieux naturels ;**
- **Perte de biodiversité ;**
- **Entrave à la navigation ;**
- **Transmission de virus à la faune et à la flore locale ;**
- **Et bien d'autres…**

Il faut donc essayer par tous les moyens d'éviter leur arrivée.

Des choses à faire sur le lac Kipawa

La clé pour contrer l'arrivée de ces espèces : la mobilisation de tous les utilisateurs et le déblocage de fonds nécessaires.

- **Éviter de déplacer son embarcation depuis un lac potentiellement contaminé ou avoir recours à une station de lavage des bateaux. La ville de Témiscaming serait un endroit stratégique à viser en priorité pour contrer l'arrivée d'EEE depuis l'Ontario.**
- **Au niveau de la route 101 au sud de Notre-Dame-du-Nord pour contrer l'arrivée d'EEE depuis Rouyn-Noranda et l'Ontario (route 65 provenant de New-Liskeard) également.**

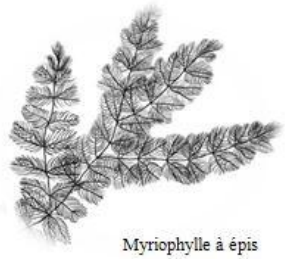
Le coût d'une station de lavage permanente avec personnel qualifié a été estimé à 45 000 $. Le détail est donné dans le tableau 1, avec l'exemple d'une station libre-service, jugée moins efficace (informations à paraître)

- *Sensibilisation : une fiche technique du Plan de gestion concertée du lac Kipawa détail cet aspect (brochures, affiches, animations, chroniques médiatiques, etc.).*
- *Stratégie de détection à mettre en place, inventaires à faire.*

Station permanente avec opérateur		Station permanente libre-service	
Item	**Coût**	**Item**	**Coût**
Système de traitement	3 000 $	**Système de traitement (Opéré à partir de monnaie)**	5 000 $
Abris	2 000 $	**Abris**	2 000 $
Formation des opérateurs	400 $	**s.o.**	
Étudiants (2 au salaire minimum)	22 400 $	**s.o.**	
Plomberie et électricité	3 800 $	**Plomberie et électricité**	3 800 $
Ingénierie	4 300 $	**Ingénierie**	4 300 $
Gravier, ciment et station de dépôt	10 000 $	**Gravier, ciment et station de dépôt**	10 000 $
Matériel de sensibilisation	En sus	**Matériel de sensibilisation**	En sus
Total	45 000 $	**Total**	25 100 $

Tableau 1 : Évaluation des coûts d'une station de lavage de bateau à titre indicatif (données à paraître)

Quelques exemples d'EEE proches de nous :


Myriophylle à épis


Cladocère épineux


Puce d'eau en hameçon


Moule zébrée

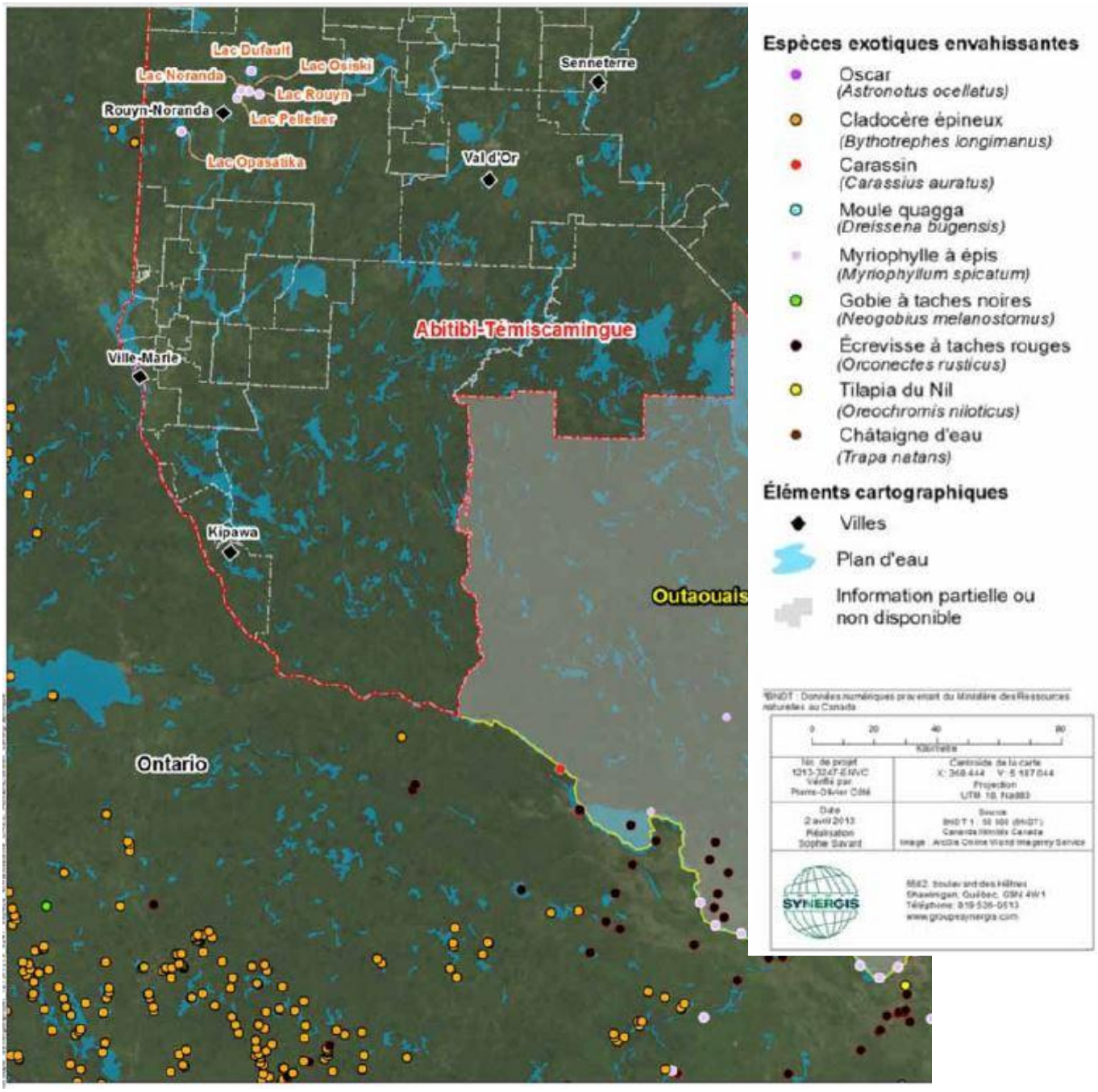


Figure 1 : Carte de répartition des espèces exotiques envahissantes aux abords du lac Kipawa

Exemples et liens utiles :

- Contrôle des espèces aquatiques envahissantes par des stations de lavage de bateaux, rapport final du projet, à paraître ;
- http://mddefp.gouv.qc.ca/faune/especes/envahissantes/ ;
- http://www.abv7.org/bibittes.php ;

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Comité permanent pour le lac Kipawa

Rôle du comité permanent

La mission de ce comité permanent pour le lac Kipawa serait de faire un suivi et une mise en application du Plan de gestion concertée du lac Kipawa. Il représenterait tous les intérêts présents autour du lac Kipawa. Par ailleurs, ce comité pourrait être interpellé sur les projets pouvant se développer sur le lac Kipawa et émettrait des propositions pour rester dans l'état d'esprit du Plan de gestion concertée. Toutes ces responsabilités seraient exécutées à titre de recommandation, mais permettraient d'orienter les décideurs (MRC et MRN).

Composition possible du comité permanent

Pour assurer l'acceptabilité sociale du comité, celui-ci devrait être équilibré en terme de représentation. De plus, pour assurer son efficacité et faciliter les échanges, le nombre de participants devrait se restreindre à environ une dizaine. Voici une suggestion de composition équilibrée et avec un nombre limité :

- Milieu municipal et MRC (3)

3 représentants des municipalités (Kipawa, Témiscaming, Béarn, Laniel), 1 représentant de la MRC et du TNO Les lacs du Témiscamingue comprenant Laniel.

- Secteur économique (3)

1 représentant des pourvoyeurs, 1 représentant du milieu industriel, 1 représentant du milieu touristique.

- Milieu environnemental et communautaire (3)

1 représentant des groupes environnementaux, 1 représentant des riverains (association ou regroupement), 1 représentant des chasseurs-pêcheurs, représentants des premières nations.

Des personnes ressources pourraient être représentées pour assurer une plus grande efficacité. Ce comité serait ainsi directement en contact avec les gestionnaires du territoire et vice versa. Ce partenariat pourrait permettre une gestion sur le long terme du lac Kipawa.

Logistique et fonctionnement du comité

Deux options de fonctionnement se présentent :

1) Suivi uniquement

Coordination par une personne responsable à hauteur de 1 journée par semaine :

- 3 rencontres annuelles du comité permanent
- Suivi des dossiers et organisation des activités
- Liens entre les acteurs et recherche d'actions qui pourraient être mises en place

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2) Suivi et mise en application

Coordination par une personne responsable à hauteur de 4 journées par semaine :

- 3rencontres annuelles du comité permanent

- Suivi des dossiers et organisation des activités

- Mise en application des actions visées par le comité en partenariat avec les décideurs et aménagistes

En considérant que ce comité serait équilibré, l'OBVT pourrait un acteur intéressant pour coordonner ce projet. Cette coordination serait conditionnelle au déblocage d'un financement pour assurer ce service.

Date de mise en place du comité

Dans le cadre du Plan de gestion concertée du lac Kipawa, le comité de concertation proposait de mettre en place ce comité d'ici 2014.

Exemples et liens utiles :

- Gravel, B., Ruel, M., Bilodeau, D. et Gariépy. S. (2004). *Guide de démarrage de comités de sous-bassin versant*. COGEBY, Saint-Hyacinthe, 101 p.

- http://www.robvq.qc.ca/experiences/details?experience=48

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Développement de l'habitation : un impact plus faible est possible

L'accès à une résidence sur le bord de l'eau est un privilège que plusieurs personnes recherchent. Cependant, de nombreux impacts en résultent, notamment la perte de l'intégrité naturelle du milieu et la diminution de la qualité de l'eau et des habitats. Mais ceux-ci peuvent être limités ou évités, la présente fiche permet de donner quelques suggestions pour un développement de l'habitation à plus faible impact.

Définition préalable

Cette fiche traite de la villégiature, soit des bâtiments utilisés pour l'habitation privée sur une base saisonnière, les bâtiments commerciaux d'hébergements ; mais aussi des résidences permanentes.

La planification des espaces de développement immobilier

La planification globale

- Elle est importante pour prendre en compte les accès, les espaces de villégiature et les secteurs publics déjà existants et maintenir des espaces de conservation.
- Les élus municipaux définissent les orientations et objectifs de planification, en collaboration avec les citoyens.
- Il est primordial de connaître la planification déjà prévue par le MRN, celle du Schéma d'aménagement et de développement de la MRC ainsi que le plan d'urbanisme des municipalités.
- La municipalité peut raffiner la carte du Schéma d'aménagement de la MRC pour définir les grandes affectations du sol propre à sa volonté de développement et à ses objectifs de protection.
- L'offre de services municipaux fait partie de la planification (ex : Service d'aqueduc et d'égout, collecte des ordures, déneigement et entretien des routes, police, pompiers et autres services publics).

La planification par habitation

- Le terrain doit être favorable à l'installation d'un système de traitement de l'eau (nature des sols, pente, présence de cours d'eau secondaire, dimension des terrains, etc.)
- Définir des terrains de plus grandes tailles qui permettront de maintenir un couvert végétal important et faciliter l'installation du puits et du système septique (plus de 4 000 mètres carrés).
- Pour un même nombre de lots, il est préférable de développer dans un secteur circonscrit, ce qui favorisera les zones de préservation ailleurs.

- Le littoral, ou bande riveraine est un milieu très important à préserver pour son importance en terme de biodiversité et de filtration de l'eau. Il faut inclure cet aspect à la planification en assurant un maintien du couvert végétal (arbres, arbustes et herbacés). La politique de protection des rives du littoral et de la plaine inondable exige le maintien d'une bande riveraine minimum entre 10 et 15 mètres. Cependant une municipalité peut exiger une largeur de bande riveraine supérieure pour assurer une protection accrue du plan d'eau.
- La notion de capacité de support, même si elle est très méconnue et difficile à déterminer, devrait être prise en compte. Par exemple, dans les secteurs qui subissent déjà des épisodes d'algues bleu-vert (signe que la capacité de support est atteinte), les sources d'émissions sont à connaître et à gérer avant de nouveaux développements.

Des exemples de développement à faible impact

En tenant compte des aspects énoncés ci-dessus et en gardant en tête que la réglementation municipale peut obliger ces pratiques pour garantir leur mise en œuvre, voici des exemples de développement à faible impact applicables au lac Kipawa :

- Développement en fer à cheval : habitations regroupées en demi-lune. Traitement des eaux usées généralisé pour l'ensemble des habitations, accès à l'eau partagé, moins d'impact sur la bande riveraine;
- Bande riveraine élargie par rapport à la réglementation existante ou bande riveraine où le contrôle de la végétation est interdit (tonte de la pelouse). Les effets positifs sont augmentés : qualité du paysage, filtration de l'eau, favorable à la biodiversité;
- Imposer un couvert végétal minimum à maintenir sur l'ensemble du lot (ex. 60 %), ce qui réduit les zones imperméables où les eaux ruissellent et maintient l'aspect visuel naturel;
- Rues avec végétalisation des abords. Orienter les eaux de ruissellement vers des bassins de décantation plutôt que des accès (sentiers, routes, chemins) en ligne droite vers le lac. Cela permet de limiter le ruissellement et l'érosion ainsi que l'apport de sédiments au lac;
- Assurer que l'ensemble des fossés et canalisations d'eau de ruissellement soient dirigés vers des bassins de décantation.

L'application de la réglementation

Le pouvoir des municipalités

Les municipalités ont notamment la responsabilité d'appliquer la réglementation sur les bandes riveraines et les fosses septiques ainsi que d'encadrer les aménagements immobiliers. L'application efficace de la réglementation encadrant les fosses septiques et les bandes riveraines est essentielle pour maintenir la qualité des plans d'eau et éviter des sources importantes de pollution. Il est primordial que les municipalités se dotent des outils nécessaires pour appliquer cette réglementation et en assurent le suivi que ce soit pour les nouveaux développements (installation des fosses, maintien de la bande riveraine, etc.) et les habitations existantes (vérification de la conformité, vidange des fosses, etc.). Quoi que cette responsabilité soit souvent difficile à assumer par de petites municipalités,

le développement de stratégies de gestion et le partage de service entre municipalités peut être une solution envisageable.

Quelques exemples en région et ailleurs au Québec

- Plusieurs municipalité (Val-d'Or, Saguenay, Lac-Beauport, etc.) ou MRC (Haute Yamaska, Rouville, etc.) procèdent à la vidange systématique des installations septiques de leur territoire. Les coûts associés à la vidange des systèmes septiques sont inclus sur le compte de taxes des contribuables.
- La ville de Rouyn-Noranda s'est dotée d'une stratégie de vérification et de mise en conformité de l'ensemble des installations septiques en bordure des lacs de son territoire.
- La ville de Rouyn-Noranda impose uniformément une largeur de bande riveraine minimum de 15 mètres, peu importe la pente du terrain. Elle exige sur certains lacs (ex. lacs Vaudray-Joannes et d'Alembert) une interdiction du contrôle de la végétation (tonte de la pelouse) dans la bande riveraine de 15 mètres.
- Processus d'aide aux citoyens à la municipalité de Beauceville pour la mise en conformité des fosses septiques. Les frais associés à la mise en conformité sont payés par le citoyen concerné par l'entremise de leurs taxes municipales, sur une période de 10 ans et avec un taux d'intérêt bas.

Exemples et liens utiles :

- Blaser, J., Corriveau, C., Dorion, J.-F., Ostiguy, T., 2007. Étude comparative des différents outils de développement résidentiel écologique.

- Carrier, C., 1994. Guide de planification et de gestion des lieux de villégiature. Ministère des Affaires municipales et des Régions. 63 pages.

- Rivard, G., 2012. Développement dans les bassins versants des prises d'eau à Québec, approches et concepts. Roche ltée et Aquapraxis. 51 pages.

- http://ville.saguenay.ca/fr/environnement/fosses-septiques-et-eaux-usees/vidange-dune-fosse-septique

- http://www.haute-yamaska.ca/cgi-cs/cs.waframe.content?topic=44121&lang=1

- http://www.chamblymatin.com/environnement/14-environnement/5297-vidange-des-fosses-septiques-pour-le-mrc-de-rouville.html

- http://banderiveraine.org/

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Aire Faunique Communautaire (AFC)

Qu'est-ce qu'une AFC ?

L'aire faunique communautaire est un **mode de gestion des plans d'eau** à mi-chemin entre la ZEC et la pourvoirie à droits exclusifs (PADE). Comme une ZEC, elle est gérée par une **corporation sans but lucratif** et comme pour les PADE, des droits exclusifs de pêche sont demandés. Elle s'implante prioritairement sur des plans d'eau publics. Elle fait l'objet d'un **bail de droits exclusif**s de **pêche** à des fins **communautaires** entre le ministère du Développement durable de l'Environnement de la Faune et des Parcs (MDDEFP) et la corporation. Cette dernière est donc soumise à des balises déterminées par le MDDEFP.

Le but est d'assurer un financement adéquat pour la **remise en état des populations** de poissons à intérêt sportif et de leurs habitats. Les utilisateurs participent à financer ces mesures en payant des autorisations de pêcher et les **gens du milieu** composent le CA de l'organisation. Ce concept permet à long terme d'assurer la conservation et la mise en valeur des populations de poissons et leur accessibilité, garantissant du même coup une pêche de qualité.

Des droits d'accès ?

Dans le but de gérer et de mettre en valeur le territoire de l'AFC, une autorisation de pêcher est demandée (droit de pêche spécifique). Cette contribution est directement réinvestie dans la mise en valeur par différents moyens :

- Recherche et programmes de connaissance pour adapter les mesures de protection ;
- Assistants à la protection de la faune sur le terrain (contrôle des droits de pêche, sensibilisation, limite le braconnage, etc.) ;
- Aménagements fauniques si nécessaire ;
- Possibilité de contribuer financièrement à des programmes d'ensemencement en compléments d'autres mesures de rétablissement du poisson ;
- Etc.

Des simulations pour le lac Kipawa ont été faites pour donner une idée des retombées économiques possibles. Elles prennent en compte le nombre de pêcheurs répertoriés par le MRN en 2006 :

	Somme rapportée par les permis (hypothèse)		
Prix journalier	5 $	7 $	7 $
Prix saisonnier (été)	50 $	60 $	80 $
	159 648 $	**212 332 $**	**233 591 $**

Des avantages et des inconvénients

Un argument en faveur de l'AFC est que tous les pêcheurs participent au rétablissement et à la mise en valeur des populations de poissons. La qualité de pêche augmente par le fait même le nombre de pêcheurs et donc les retombées économiques pour la région.

Avantages	Inconvénients
Budget et employés rendus disponibles pour la gestion de la pêche et des populations de poissons (possibilité d'autofinancement)	Droits de pêche à payer pour pêcher sur le lac Kipawa
Gestion des populations et des habitats de poissons par les gens du milieu (CA, CE de l'AFC et employés sur place)	Comptes à rendre au MDDEFP : loyer à payer et conditions particulières (rapport annuel d'activité et financier, études biologiques à faire par le locataire)
Surveillance soutenue du territoire par des assistants à la protection de la faune (quotidiennement : sensibilisation, connaissance et surveillance de la bonne conduite des pêcheurs et utilisateurs)	Recherche de financements et d'engagement de longue durée nécessaire (organismes commanditaires, etc.)
Assemblée générale annuelle publique et site internet qui permettent à tout le monde de faire un suivi des actions et des connaissances sur le territoire	Besoin de réviser la situation régulièrement par le biais d'études
Lien entre le ministère et la population par l'intermédiaire de la corporation	
Possibilité de mener de nombreuses études	

Le conseil d'administration de l'AFC

Le conseil d'administration doit être composé de

- Minimum 1/3 de membres utilisateurs du territoire (exemples : pêcheurs sportifs, riverains)
- Maximum 2/3 provenant des organismes du milieu, membres de la corporation (exemples : pourvoyeurs, fédération des chasseurs-pêcheurs, MRC, entreprises, tourisme)

Les AFC existantes

Présentement, 4 plans d'eau exceptionnels sont gérés grâce à une Aire faunique communautaire.

- Corporation de LACtivité pêche Lac-Saint-Jean (CLAP), depuis 1996
- AFC du réservoir Baskatong, 1998
- AFC du réservoir Gouin, 2000
- AFC du lac Saint-Pierre, 2005

Les bons coups des AFC existantes

Les effets bénéfiques sur les espèces de poissons ont été démontrés. Par exemple, L'AFC du lac Saint-Jean a permis de retrouver des populations de Ouananiche exploitables au plus grand plaisir des pêcheurs sportifs. 10 assistants à la protection de la faune parcourent le lac quotidiennement.

L'AFC du réservoir Baskatong permet de disposer d'une bonne pêche au doré jaune. D'autres exemples sont disponibles sur grâce aux liens internet à la fin de ce document.

Résumé des étapes qui mèneraient à la mise en place d'une AFC

1. Déterminer si le milieu à une volonté pour créer une AFC (très important pour aller de l'avant avec le projet)
2. Demande au MDDEFP et analyse de la recevabilité de la demande
3. Formation d'un comité provisoire pour proposer une gestion de l'AFC
4. Consultations sur les modalités du projet
5. Mise en place des règles, tarifs et détails de l'AFC (ex. : pisciculture, aménagements, etc.)
6. Mise sur pied d'un conseil d'administration pour l'AFC
7. Recherche de financeurs pour la structure
8. Signature d'un bail avec le MDDEFP
9. Recherche d'assistants à la protection de la faune pour sillonner le terrain et d'autres employés
10. Mise en place

Exemples et liens utiles :

- http://www.mddefp.gouv.qc.ca/faune/territoires/aire.htm
- http://claplacsaintjean.com/
- http://www.afcbaskatong.com/
- http://www.afcgouin.ca/
- http://www.afclacst-pierre.org/

AFC BASKATONG

AFC Aire Faunique Communautaire du lac St-Pierre
Pour vivre de vraies histoires de pêche...

A.F.C. PROTECTION GOUIN CONSERVATION PUISER SANS ÉPUISER

CORPORATION DE LACTIVITÉ PÊCHE LAC-SAINT-JEAN

Limiter les impacts sur le milieu

Fiche technique du Plan de gestion concertée du lac Kipawa

Des Éco-Marinas au lac Kipawa ?

Les rampes de mise à l'eau du lac Kipawa

- Les rampes de mise à l'eau du lac Kipawa sont nombreuses et en partie inconnues (privées)
- Il y a avantage à centraliser et limiter le nombre de ces accès
- Les accès avec services plus encadrés (station de pompage, affichage, sensibilisation) pourraient être favorisés
- Aux accès sans services (en attendant de généraliser l'utilisation des rampes sélectionnées), des pancartes pourraient orienter les utilisateurs vers les accès avec service.

Le lien avec les marinas

Bien souvent à l'emplacement des accès à l'eau principaux, se trouvent des marinas.
Leur mise en place ou leur agrandissement sont soumis à plusieurs autorisations de différents ministères et instances tant au niveau local que provincial et fédéral.

La certification éco-marina

La reconnaissance "éco-marina" repose sur une initiative des propriétaires. Elle s'appuie sur certaines exigences d'excellence des pratiques instaurées par l'association maritime du Québec (AMQ) et présente plusieurs avantages basés sur le développement durable.

Les marinas représentent le point d'entrée d'un plan d'eau, ce qui ajoute de l'importance à l'esthétique de cette portion du littoral. Une marina propre et bien entretenue encourage les utilisateurs à adopter des habitudes responsables.

Les buts des éco-marinas sont nombreux :

- faire la promotion de produits écologiques pour la navigation
- élaborer des pratiques de navigation responsables
- avoir des installations exemplaires d'un point de vue environnemental
- instaurer des procédures d'urgence est un plan d'intervention grâce à un personnel régulièrement formé
- regrouper des marinas reconnues

La certification éco-marina ne cherche pas à augmenter les coûts des propriétaires, mais plutôt à orienter les activités vers des pratiques saines et respectueuses de l'environnement. Certains investissements encouragés seront plus chers, mais plus durables dans le temps.

La valeur de revente d'une marina écoresponsable est plus importante qu'une autre, qui aurait par exemple diminué la qualité de l'environnement.

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Les frais induits par des contaminations éventuelles par hydrocarbures ou l'émission de grandes quantités de déchets sont évités. Le principe de réduction, réutilisation et recyclage sont mis de l'avant.

L'AMQ, le MDDEFP, Transport-Québec et les Ministères fédéraux reliés à la navigation se sont joints au partenariat d'Éco-marinas.

La certification éco-marina (gratuite pour les membres de l'AMQ) donne accès à de nombreux outils, guides, programmes, normes et idées de pratiques environnementales durables.

Exemples et liens utiles :

- Association Maritime du Québec, 2008. Éco-Marina, Première édition (la description de l'éco-marina est directement extraite de ce document)

- http://www.nautismequebec.com/ecomarina.php


KIPAWA