

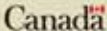




JUMPING THROUGH HOOPS
Dealing with laws and regulations in ecological restoration
Albert van Dijk, La Mauricie Field Unit, Waterton, October 3, 2007



 Parcs Canada Parks Canada 

La Mauricie National Park of Canada



- ✓ Represents the interface between the St. Lawrence Valley and the Canadian Shield
- ✓ 536.4 km²
- ✓ Midway between Montréal and Québec City, 50 km North of St-Lawrence River
- ✓ Water surface: 37,5 km² (7%)
- ✓ More than 150 lakes and ponds
- ✓ 89% of the lakes are < 50 ha
- ✓ Brook trout: main native fish species

Logging and timber driving (1839-1970)



Hunting and fishing clubs (1883-1970)



Historical impacts

Logging and timber driving

- ✓ Presence of dams or transport infrastructures



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- ✓ Presence or accumulation of logs or driftwood on the bottom



Historical impacts

Logging and timber driving

- ✓ Presence of dams or transport infrastructures
- ✓ Presence or accumulation of logs or driftwood on the bottom
- ✓ Disappearance or alteration of shores and the littoral zone



Historical impacts

- ✓ Presence of non-native species

Current communities are the product of luck and do not correspond to the original species present in the natural region.

5 native species / ~ 20 non-native species



Mulet perlé (69 lacs) sp. introduite



Omble de fontaine (54 lacs) sp. indigène



Mulet à cornes (26 lacs) sp. introduite



Ventre rouge du nord (22 lacs) sp. introduite

Brook trout

Presence and abundance

- ✓ Present in 54 lakes out of a potential of 120 or more
- ✓ 22 populations disappeared before 1970
- ✓ 16 populations disappeared after 1970
- ✓ 4 populations maintained due to immigration
- ✓ A loss of productivity of around 50%
- ✓ Eleven distinct genetic lines, some of which are only represented by one population



Project history

Aquatic ecosystem management plan (1996)

Unimpaired for future generations (2000)

First priority (2001)

Management plan (in preparation)

«Reestablish the natural structure and function of aquatic ecosystems deteriorated due to the actions of people in the past and in the present, to allow for their natural evolution »

«Ensure the viability of populations, genetic preservation, and the capacity of native brook trout populations to evolve naturally »

«Control invasion by foreign species »



Project objectives

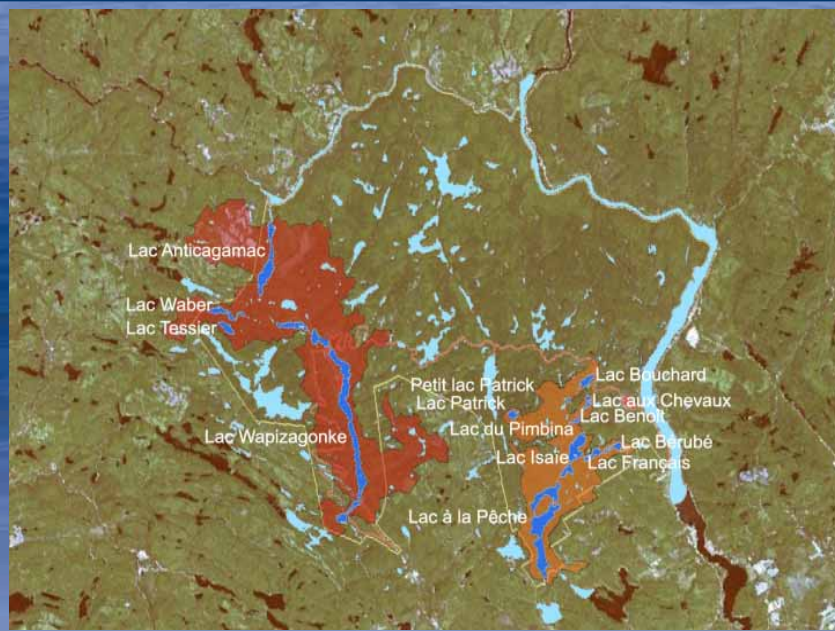


Stabilize water levels in some lakes by eliminating remaining dams, bridges, and the accumulation of wood at the exits.

Improve the condition of shores by eliminating the accumulated logs and wood debris present due to the artificial increase in water levels

Reestablish native fish populations by eliminating species that have been introduced and reintroducing brook trout populations from local stocks.

Lakes chosen for restoration



Rotenone



✓ **Highly sensitive in the public opinion;**

✓ **Concerns many laws, directives and regulations:**

Fisheries Act

Environmental Assessment Act and Parks Canada's Directive on Impact Assessment

Directive on Integrated Pest Management

Species at Risk Act

Federal Policy on Wetland Conservation

National Park's Act

Provincial laws and regulations

Rotenone



Mai 2004: Park sends info on rotenone to Ottawa. Product acceptable?

Following our evaluation, rotenone (a fish toxic substance) least invasive and most effective method to extirpate exotic fish species from lakes.

June 2004: La Mauricie obtains funding for the project

August 2004: Answer from Ottawa on product acceptability

At present, Parks Canada has no specific ban on rotenone application, provided it is used for restoring the appropriate conditions for native fish communities. A full Integrated Pest Management plan should be completed.

Rotenone



December 2004 We have a serious problem

Answer from legal services with respect to the Fisheries Act:

Rotenone application is subject to Fisheries Act

But:

Art. 16 of the General Regulations on National Parks prohibits pollution of national parks' waters, without exception;

NPA prevails;

We strongly recommend to amend the General Regulations before applying rotenone to the park's waters.

Rotenone



January 2005: We present counter arguments

- ✓ *Parks Canada has a legal obligation to maintain and restore Ecological Integrity*
- ✓ *Exotic fish species diminish integrity of fish communities*
- ✓ *Active management is acceptable to restore EI*
- ✓ *Parks Canada will eradicate, where possible, exotic species*
- ✓ *Rotenone is the least invasive method known to eradicate exotic fish species*
- ✓ *Rotenone use is not contrary to Parks Canada's directives on the use of pesticides.*

Rotenone



- ✓ **March 2005: Legal services accept arguments and accepts the fact that rotenone use is not contrary to art.16 of General Regulations**

- ✓ **Mai 2005: Ottawa okays use of rotenone under the following conditions:**

- ✓ Strategic Environmental Assessment;
- ✓ Obtain necessary permissions;
- ✓ Communication strategy;
- ✓ Integrated Pest Management Plan;
- ✓ Animal Care Committee approval.

Rotenone



Mai 2005 to March 2006: Working hard to get the complete project running. We hit the tarmac running.

April 2006:

- ✓ Strategic environmental assessment of the complete project, including rotenone application, submitted and approved.
- ✓ Application for use permit (MNR,Qc)

June 2006: Request for approval by the Animal Care Committee.

Rotenone



Early July 2006. Involvement becomes commitment.

- ✓ Purchase of 13K of rotenone
- ✓ Contracting out of the rotenone treatment (12K)
- ✓ Necessary permit for the use of rotenone not yet obtained

Rotenone



Early August 2006. Receive permission from DNR(QC) to apply rotenone to three lakes of the project

Early September 2006. Receive OK from the Animal Care Committee.

Early September 2006. Finalize communication strategy (had been already partially implemented during the summer)

Early September 2006. Briefing note to CEO on the upcoming rotenone treatment

Early September 2006. Integrated Pest Management Plan submitted

Rotenone



Early October 2006. Treatment with rotenone of three lakes



Rotenone



October 10th, the day after: CONSTERNATION

E-Mail from Communication Branch:

« Are you aware of following article in provincial press: *Fish kill angers First Nations residents. Mauricie region: Quebec authorized project to eradicate unwanted species?* FAX of article to follow»

This article did finally not apply to the park's project, but to a project in Upper-Mauricie and underlines need for effective communication.

Rotenone



Mid October 2006, Job done, thinking about holidays

Surprise, I receive an E-Mail from Department of Natural Resources, Québec:

“We may possibly not be able to emit permits for the use of rotenone for the rest of your project.

Fisheries Act art.36 (4 b) authorizes an exemption from the interdiction of immersion of toxic substances (article 36 (3)).

The Regulations on Wildlife Habitat (Québec), under the authority of which we emit rotenone application permits, is only in force on the provincial crown lands.

Our interpretation of the *Act creating La Mauricie National Park* is that the province is the owner of the territory, whereas Parks Canada claims the territory to be its property. This property question will have to be solved.”

Rotenone



The Act creating La Mauricie National Park states:

- ✓ Parks Canada can manage and regulate use of the territory;
- ✓ If the territory loses the status of national park, it will return to the province;
- ✓ On these grounds, legal services of the Department of Natural Resources consider the park as part of the provincial crown land.

Parks Canada’s legal services consider the rights transferred to the Federal government as a proof of ownership.

Back to square one.

Rotenone



October 2006 – Contact Fisheries and Oceans Canada

March 2007 Possibility to use an exception clause that might give F&O authority to emit a permit.

Mai 2007 F&O legal services announce that the exception clause is not applicable for La Mauricie.

Mai 2007 New consultations with Parks legal services. After several conference calls, they come up with a potential solution:

F&O transferred the authority to emit permits to the province for all freshwater bodies within province of Quebec. The ownership of the land base is not an issue.

Rotenone



Mid-June 2007 The Department of Natural Resources accepts to emit a permit.

End of September 2007 Two more lakes treated with rotenone.

Rotenone



Lessons learned

- ✓ *Plan carefully, take all aspects into consideration.*
- ✓ *Red flag if important legal/ regulatory aspects associated with the restoration project – consult with legal advisors*
- ✓ *Red flag if important public opinion issues – study the social environment, consult and inform .*

Lac Isaïe restoration



MONITORING

ASSESSMENT



Introduction of a unique stock of brook trout in Lac Tessier



Lac Isaïe restoration



Dendrochronology (Laval University)



Engaging Canadians

Public relations

- ✓ Official launch

Press relations

- ✓ Radio broadcasts
- ✓ Newspapers

Building awareness

- ✓ Internet
- ✓ Posters
- ✓ Slide presentation
- ✓ Information sessions
- ✓ Information pamphlets



Engaging Canadians

Interpretation Education

- ✓ Evening talks
- ✓ Special activities
- ✓ School activities



An integrated project

Ministère des Ressources Naturelles et de la Faune
 Fisheries and Oceans Canada
 Committee on the introduction and transfer of aquatic species
 Université du Québec à Trois-Rivières
 Université Laval University
 Université du Québec à Montréal
 Pisciculture de la Jacques Cartier Inc. (fish hatchery)
 Pemesseau Faune
 Géomatique GC Inc.
 Nove environnement Inc.
 Alliance Environnement Inc.
 Parks Canada National Office
 National Parks Branch
 Legal Services
 Parks Canada Animal Care Committee
 Québec Service Center
 Service du patrimoine culturel
 Marketing et Affaires du programme
 Conservation des écosystèmes
 La Mauricie National Park
 Service d'interprétation
 Service aux visiteurs
 Service technique
 Service de conservation des ressources naturelles
 Service des finances et gestion du personnel



Questions?
 Comments?

