Key Issues:

13- Improvement of Infrastructure
8- Minority Group
14- Development of Regional Industories

Climate Zone:

C-Df: Temperate to Severe Climate

Subjects:

- Regional benefits generated by a hydropower project

Effects:

- Improved inland access due to a new 86-km road between the coast and Sainte-Marguerite-3 generating station
- Improvements in the quality of life of communities that benefit from new infrastructure
- Contribution to a region's economic development through transfer of sustainable know-how to local companies

Project Name: Sainte-Marguerite-3
Country: Canada

Implementing Party & Period

- Project: Hydro-Québec
Construction: 1994 – 2002

- Good Practice: Hydro-Québec
Construction period and several decades beyond

Key Words:

Infrastructure enhancement, Regional development, Capacity building,
Optimizing spin-offs for local communities

Abstract:

Measures to improve infrastructure and to foster development of regional industries have been defined in three agreements signed with an Innu indigenous community, regional and local authorities and a hunting and fishing association. In addition, several measures to enhance regional economic spin-offs were implemented with the help of a regional economic benefits committee composed of regional stakeholders representing the business community.

1. Outline of the Project

Located on the North Shore of the Gulf of St. Lawrence, the Sainte-Marguerite-3 project, has been developed on the Sainte-Marguerite River some 700 km northeast of Montréal. Near its mouth, the river already flows through two small privately owned power stations, Sainte-Marguerite-1 and Sainte-Marguerite-2. The Sainte-Marguerite-3 project (SM-3) consists of a 171-metre-high rockfill dam (the Denis-Perron dam) and an underground powerhouse with two turbines, which have a total installed

capacity of 882 MW. The total head is about 330 metres, which makes it the highest hydraulic head in Québec. An 8.3-km he drace tunnel connects the reservoir to the powerhouse. The reservoir's area is 253 km2 and its length is about 140 kilometres. A new 86-km-long access road was built between the coast and the SM-3 generating station. Peak employment reached 1,200 workers, with an average of 500 workers over the eight-year construction period. There was no population displacement, which is typical for projects in Québec. The direct cost of the project is approximately CAD$2.4 billion.

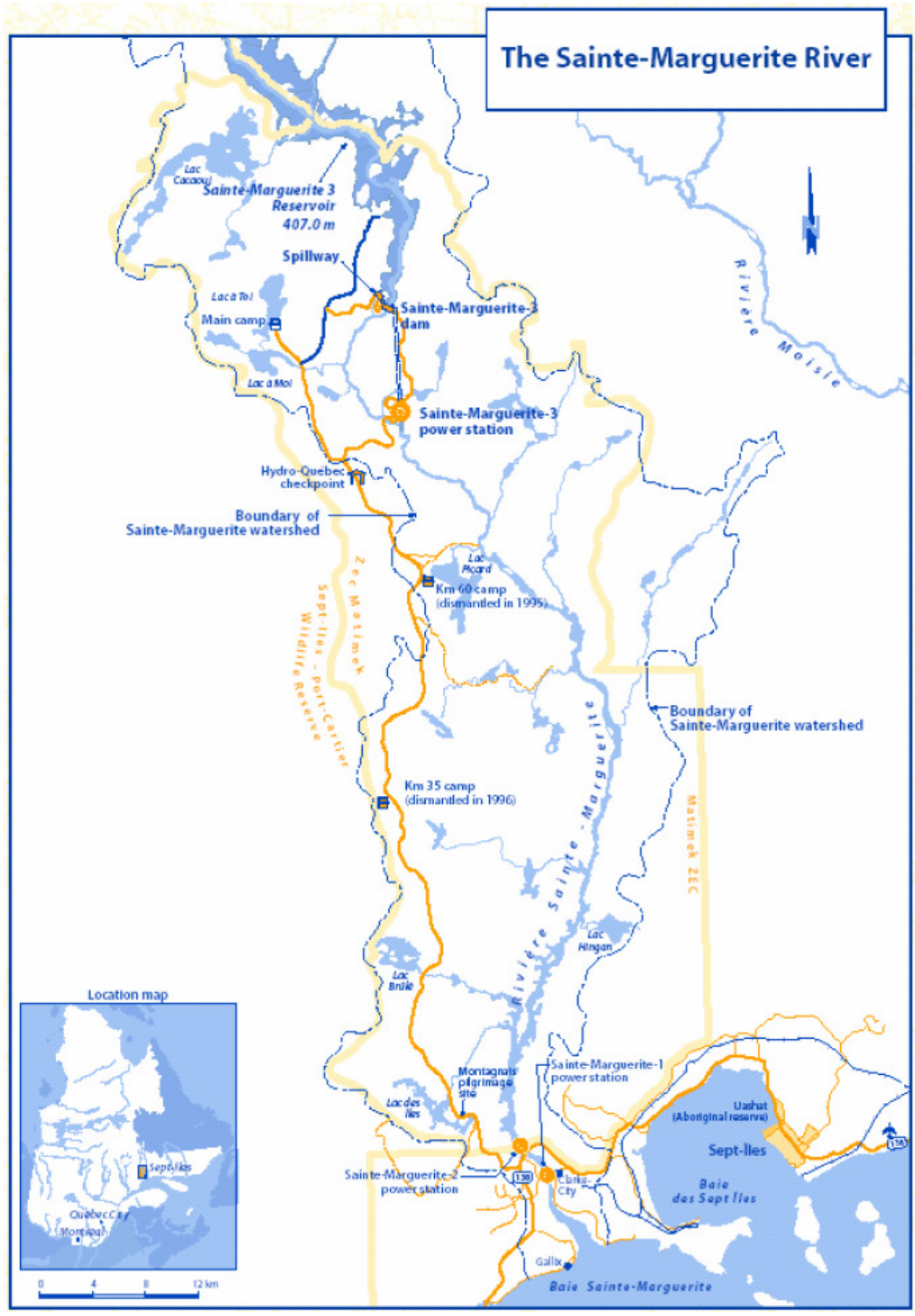


Figure 1: Location map of the project

2. Features of the Project Area

The 280-km-long Saint-Marguerite River flows from north to south through three geographical regions: the Nordic plateau, which is quite flat with many lakes, at an elevation of about 500 metres; a low-lying coast with long sandy beaches and boggy marshes; and in between, a hilly hinterland area with steep narrow valleys. The surrounding forest, mostly conifers, has scattered deciduous stands, which become rarer farther north and gradually give way to conifers.

With regard to human features, the North Shore of the St. Lawrence is characterised by low population densities, and is inhabited essentially only along the coast. There are very few permanent inhabitants in the hinterland. The towns are: inland, Fermont (population: 3,700); on the coast, Sept-Îles (population: 25,000), Port-Cartier (population: 7,000); and one Innu aboriginal community, Uashat-Maliotenam (population: 2,200). Major economic activities are oriented towards forestry, pulp and paper, mining, hydroelectricity and metal fabrication with aluminium smelters in Sept-Îles.

3. Benefits

Measures related to the development of infrastructure and regional industries have been defined in three agreements signed with regional authorities. We will first describe these agreements and then the main infrastructure built under each one. In addition, Hydro-Québec has implemented several measures to increase regional economic spin-offs.

3.1 Agreements with Regional Authorities

Uashat Mak Mani-Utenam (1994) Agreement

The *Uashat Mak Mani-Utenam Agreement*, signed with the Innu indigenous community of Uashat-Maliotenam, provides for CAD$20.9 million (in discounted 1994 dollars) in compensation to be paid over a period of 50 years. This compensation is deposited in two funds: the *Innu Aitun* fund to support hunting and trapping activities, a fundamental facet of Innu culture; and another fund designed to promote economic and community development. In addition, a maximum of CAD$10 million was budgeted for remedial measures during construction. Responsibility for these measures was assigned to the Sainte-Marguerite remedial works corporation (SOTRAC), which is run jointly by the Innus and Hydro-Québec. The agreement also includes measures to maximise Innu employment during Sainte-Marguerite-3 construction and operation and contracts to Innu companies.

Integrated Enhancement Program

Under Hydro-Québec's Integrated Enhancement Policy, funds are granted to communities affected by new projects worth over CAD$500 million. This programme dedicates 1% of a project's total investment capital to compensate communities who bear impacts that cannot be mitigated. Under this policy, funding of CAD$28 million was made available to regional and local authorities in 1995 to support regional development and environmental enhancement.

Matimek ZEC

Since Denis-Perron dam is built on the territory of the Matimek ZEC (controlled wildlife harvesting zone), Hydro-Québec negotiated and signed an agreement with the Sept-Îles hunting and fishing association that manages wildlife resources in the area. The agreement provided for better access to the Sainte-Marguerite 2 reservoir and also provided the association with an administrative structure during the construction activities.

3.2 Construction of New Infrastructure and Facilities for the Innu Community

The *Uashat Mak Mani-Utenam Agreement* comprises improved land use conditions and the construction of new facilities for the Innu community. The main projects include the following:

- Construction of several trapping camps and four community camps in the Sainte-Marguerite and Moisie watersheds
- Building of 170 km of snowmobile trails that facilitate access to many Innu traplines and to the most remote corners of the region
- Building of sport facilities such as an arena and two swimming pools
- Building of new business establishments (i.e., supermarket, hardware store)
- Improvements to the Innu pilgrimage site dedicated to Saint Anne
- Construction of Shaputuan Museum dedicated to the transmission of Innu culture and housing a permanent exhibition of the principal remains discovered in the region

Snowmobile Trails

Shaputuan Museum of Innu Culture

Sport Facilities: Arena, Swimming Pool

3.3 Main Infrastructure Projects accomplished under the Integrated Enhancement Program

Hydro-Québec's Integrated Enhancement Program has helped to finance numerous projects intended to improve the quality of the environment and of municipal infrastructure, as well as to support regional development. Projects include the following:

Sanitary Infrastructure

- Drinking water treatment plants in Sept-Îles and Port-Cartier
- Improvement to municipal aqueducts in five communities
- Enlargement of a sanitary landfill in Sept-Îles.

Water treatment plants in Sept-Îles and Port-Cartier

Recreation and Tourist Infrastructure

- Creation and improvement of four public parks and three playgrounds
- Enhancement of historic sites such as a 19th-century sawmill, a rectory and a church
- Creation of trails for hiking, biking and cross-country skiing
- Development and enhancement of several recreation areas, such as two camping grounds, a ski station, an outdoor activity centre, several access areas to rivers for boating and a salmon interpretation centre.

Community Development Projects

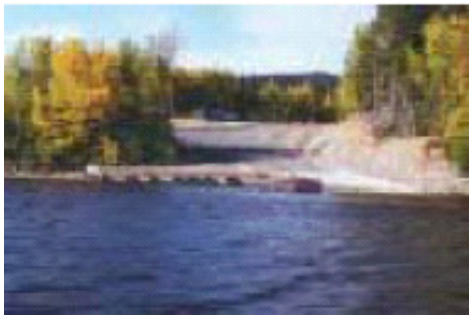
- Construction of three community centers and two public gardens
- Construction of a panoramic boardwalk in Gallix and shoreline protection
- Financial support to maintain the economic activities of the regional wood and paper industry
- Construction of a boardwalk in Sept-Îles

Panoramic boardwalk in Gallix

Support of the regional pulp and paper industry

3.4 Construction of New Infrastructure for the Matimek ZEC

Better access was provided to the Sainte-Marguerite 2 reservoir by improving the access road and through the construction of a parking area and a boat ramp. A boat ramp was also built at the Sainte-Marguerite 3 reservoir. In addition, measures were taken to improve fish habitats. All in all, the Matimek ZEC received about CAD$1 million through this project.



Boat ramp on Saint-Marguerite 2 reservoir

3.5 Measures to enhance regional economic spin-offs

In 1993, Hydro-Québec set up the regional economic benefits committee to maximise positive impacts on the economy of the North Shore region. The committee was composed of representatives from the regional business community. Measures included the following:

- The hiring of a full-time coordinator to establish a permanent communication channel between Hydro-Québec and the regional and local economic stakeholders
- Provisions to maximise subcontracting to local businesses
- Splitting of some contracts to facilitate tenders from local businesses
- Calls for tenders reserved for local businesses

The Innu community also benefited from specific measures that included contracts to Innu companies and training programmes for Innu workers.

4. Effects of the Benefits

Besides the enhanced quality of life in towns and villages that benefited from new infrastructure, the main benefits include improved access to the hinterland and regional economic spin-offs.

4.1 Improved Access to the Back Country

Before the development of the Sainte-Marguerite-3 project, the inland region was seldom visited. The development has promoted the extension of the road system and, as a result, the use of the land for recreational and commercial purposes. The new 86-km access road to the generating station makes inland access much easier. It is extended by logging roads. The regional authorities would eventually like to connect it to another parallel road which runs further west (highway 389 between Baie-Comeau and Fermont) in order to create an inland loop that would enhance access conditions to several tourist attractions.

Between 1994 and 1999, the use of the area north of Sainte-Marguerite-3 grew threefold. The peak period coincides with summer vacations and the hunting seasons for big and small game. The new road system also encourages resort development. User activity, previously concentrated around Sainte-Marguerite 2 reservoir, now extends over an area that stretches more than 100 km north from the coast and goes well beyond the boundary of the Sainte-Marguerite River drainage basin.

Innu use of the land has also grown, since the road system provides access to traplines that were very little harvested previously. A number of trapping camps have been set up in the Sainte-Marguerite basin since the highway opened. In addition, infrastructure projects developed under the *Uashat Mak Mani-Utenam Agreement*, such as snowmobile trails, greatly facilitated land use conditions.

4.2 Regional Economic Development

Measures to enhance regional economic spin-offs described in Section 3.5 have contributed to the region's economic development, as demonstrated by the following results:

- CAD$160 million in contracts awarded locally out of a total of CAD$790 million (20%)
- CAD$500 million in funds injected into the regional economy (salaries, goods and services, agreements with local communities)
- Construction workers from the region represented, on average, 70% of the total construction workforce

The project thus created more local jobs during construction than had been expected. Other benefits include the acquisition of sustainable and transferable know-how by local companies.

The Sainte-Marguerite-3 project has also contributed to the economic development of the Innu community. Not only did it create jobs for the Innus during construction, it has had a longer-term impact on workforce skills. Innu workers represented, on average, some 30 person-years (about 4% of the construction workforce) from 1994 to 2002. In addition, 26 Innus acquired construction trade cards and several Innu companies secured contracts negotiated individually on the jobsite, and new companies, such as Innu Construction, were formed.

Finally, the operation of the Sainte-Marguerite 3 reservoir, by regulating the flow of the Sainte-Marguerite River, increases the power generation potential of the two privately owned power stations located on the downstream river reach near the mouth. They have thus been refurbished by their owners.

5. Reasons for Success

Although the population of Québec is satisfied with Hydro-Québec's overall performance as a company, with approval ratings of over 80%, approval of specific projects varies. Sainte-Marguerite-3 was quite unusual because it got overt support from local groups. The success of Sainte-Marguerite-3 results partly from trust-building through the negotiation and signing of agreements with concerned regional and local stakeholders: the Innu indigenous community, municipal and business institutions and land users. The following section further describes how these agreements were negotiated.

The lessons learnt from the Sainte-Marguerite experience that helped build a good climate with the stakeholders can be summarised as follows (Milewski and Corfa, 1998):

- Be on site: a local permanent presence is essential, right from the design phase
- Hire locally: appoint trusted local people to positions that handle community relations
- Understand: understand the expectations, potentials and limitations of the stakeholders
- Listen and be ready to act: original solutions are often proposed by stakeholders, and the promoter must be ready to revise its position in order to reach an agreement
- Match words and action: this is a prerequisite for building trust
- Stick to your commitments. trust is built step by step
- Work together: this cements mutual trust

6. Outside Comments

The following section describes the issues raised by the Sainte-Marguerite-3 project for each group of concerned stakeholders and the positive and negative comments they expressed. The press review listed below supports these results.

6.1 The Innu community

The Sainte-Marguerite-3 project raised three basic issues among the Uashat-Maliotenam Innu community: territorial land claims, access to the hinterland and economic development. Regarding land claims, the political situation of the Innus is similar to that of many Canadian aboriginal communities: an absence of negotiated agreements concerning ownership of the land between the governments and the communities. The lack of political settlements makes it difficult to carry out large infrastructure ventures on disputed lands, and this means that developers must negotiate on a project-by-project basis with aboriginal communities, to avoid political confrontations. Access to the hinterland was also an issue because easier access to the area could eventually increase competition for wilderness resources between the native communities and the rest of the population. This project is, however, bringing a lot of economic development to the area, and community development is also an important issue for the Innu.

During the planning phase of the Sainte-Marguerite-3 project, the Band Council, which is an elected body representing the Innu community, was not against the project as long as it was a partner involved in the decision-making process. At the other end of the spectrum were the Innu Traditionalists, a political movement within the community supporting traditional native values. The Traditionalists were absolutely against the project, and demanded compensation for past land occupation by non-native populations. The opinions of the Uashat and Maliotenam population ranged from support for the Traditionalists' position to support for the Band Council's.

Opinions during the public hearings became quite polarised. Hydro-Québec was obliged to reach an acceptable agreement with the Innu. Once a preliminary agreement was reached, the Band Council

decided to put it to a referendum within the Innu community. This community referendum would decide whether or not the agreement was acceptable to the Innu. The referendum was favourable, albeit by a small margin (52%) but it allowed the Band Council to ratify the *Uashat Mak Mani-Utenam Agreement* with Hydro-Québec and to go ahead with the Sainte-Marguerite-3 project (see Section 3.1). It is important to note that the Agreement is not political in the sense that it did not involve any government, nor did it settle any historical land claim issue, allowing the Innu to pursue any and all territorial claims they may have with the governments. It is also a collective agreement: There is no individual compensation, but rather collective, community compensation. This was required by the community itself.

6.2 Municipal and Business Institutions

There was a single overwhelming issue for municipal and business institutions, which was to maximise regional economic spin-offs. In the early 1990s, the region was going through a severe recession and business, labour and political leaders joined forces to promote the Sainte-Marguerite-3 project and lobby Hydro-Québec to generate as much economic activity as possible in the region. As a result, Hydro-Québec implemented a full array of measures to enhance regional economic spin-offs (see Section 3.5) and implemented the Integrated Enhancement Program (see Section 3.1).

There was strong support for the project from local business, labour and political organisations. A key event was a political demonstration where, for the first time in recent memory, a varied group of people, including businessmen, labour unions and Native leaders, took to the streets together in support of a hydroelectric project.

6.3 Land Users

The main issue for land users was the increased competition for natural resources that could result from the construction of a new access road. The Innu were concerned about competition for resources and the other users were not fundamentally opposed to the project as long as Hydro-Québec provided guarantees in terms of compensation and mitigation measures. Hydro-Québec thus negotiated and signed an agreement – the *ZEC Matimek Agreement* (see Section 3.1) – with the association which manages wildlife resources in the area.

6.4 Press review:

Newspaper	**Date**	**Journalist**	**Title of the Article**
Le Soleil	28/01/1999	Stéphane Tremblay	Chantier de la Sainte-Marguerite-3: L'année 1998 meilleure que prévue
Le Soleil	09/12/1999	Stéphane Tremblay	Au chantier de SM-3 Hydro-Québec favorise les entreprises régionales
Le Soleil	02/09/2000	Stéphane Tremblay	Barrage SM-3: Hydro priée de continuer les visites
Le Soleil	12/12/2000	Steve Paradis	L'union fait la force – Baie-Comeau croit avoir trouvé une solution pour maximiser les retombées
Le Soleil	18/06/2001	Stéphane Tremblay	"L'exemple à suivre" Elie Saheb, vice-président chez Hydro-Québec, ne cache pas sa fierté pour SM-3
Le Soleil	18/06/2001	Stéphane Tremblay	Vie communautaire: Charlevoix-Côte-Nord
Le Soleil	24/09/2001	Stéphane Tremblay	La Côte-Nord crie à l'aide

7. Further Information

7.1 References

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