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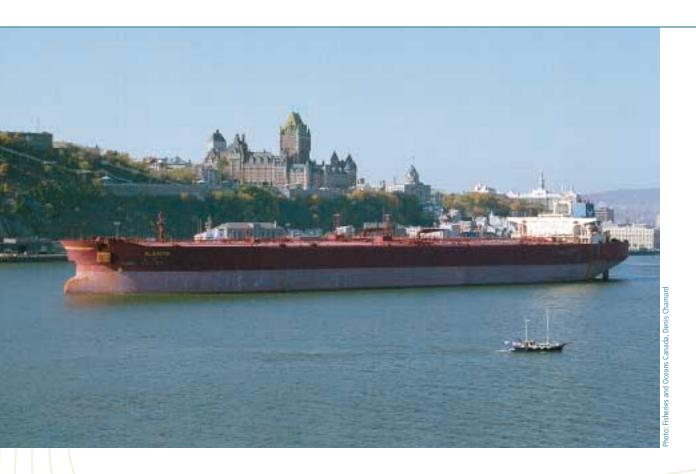
Having played a central role in Quebec's history and being at the heart of the province's heritage, the St. Lawrence River is a gateway to cultural learning and economic development. Over the years, the river has been the focus of major scientific research and social movements that have helped us better understand the state of the river's health and better take advantage of its attributes.

However, in the 1970s, the enthusiasm of scientists and policy makers was not shared by most Quebecers. Pollution in the St. Lawrence River resulted in the river being forsaken. In people's minds, the watercourse was dirty; you could no longer enjoy it, or fish or swim in it. This major ecosystem had become an anonymous waterway that was no longer the healthy, safe habitat in our own backyard it had once been. The river was being used less and less as a result of the pollution. Although pollution increased conflict among users, it fostered a greater consciousness as to users' mutual interests.

In 1988, the governments of Canada and Quebec established the St. Lawrence Action Plan (SLAP), which stemmed from the Canada—Quebec Agreement for Joint Action on the St. Lawrence. The objectives were to give the river back to Canadians and recover its former uses. To do this, the governments promoted major, neverbefore-seen community involvement, the establishment of a real St. Lawrence community, and the creation of a network of community, socio-economic, environmental, municipal and industrial stakeholders devoted to the clean-up and enhancement of the St. Lawrence River.



#### UNDER THE ST. LAWRENCE ACTION PLAN



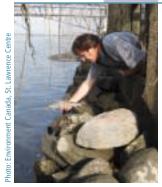


After nearly 15 years of SLAP initiatives, it is worthwhile to look back at the results of the convergence, and sometimes clash, of the visions and practices of various groups that have mobilized in favour of the St. Lawrence River. This overview of community action development under SLAP is intended to reflect the important role played by communities in the attainment of SLAP objectives, outlining the specific contributions of organizations that have served as the pillars of the above-mentioned St. Lawrence community, and looks to the future.

#### The overview is divided into three chapters:

- The 1970s and 1980s: Resolving Usual Conflicts. This chapter sets out the scientific and social initiatives focussing on the river that preceded SLAP. These projects helped lay the groundwork for SLAP, justifying the joint approach adopted by the federal and provincial governments in the late 1980s.
- The St. Lawrence Action Plan: Environmental Leap and Public Involvement. Chapter 2 gives a rundown of the characteristics of SLAP and the conditions that favoured community mobilization.
- 3. The Emergence of a St. Lawrence Community. This chapter outlines community action over the years, focussing on the experiences of the "pillars of the St. Lawrence community," namely the groups whose contribution was instrumental in getting communities involved in managing the river.

## HE 1970s AND 1980s: RESOLVING USUAL CONFLICTS



In the early 1970s, water quality in the St. Lawrence River became a central issue. Time and time again, limitations that resulted from bacterial and toxic pollution on the recovery of uses and on the overall management of river uses for economic, social and environmental purposes were noted. It was agreed that science alone could not solve all the problems; a major collective effort was needed by a partnership of social stakeholders, including environmental groups and the general public. All of the scientific and social initiatives in the 1970s and 1980s that focussed on the river left their mark and laid the groundwork for the

development of the St. Lawrence Action Plan, a measure combining government efforts and community mobilization.

Canada—Quebec St. Lawrence Working Group. In 1972, the Canada—Quebec St. Lawrence Working Group was mandated to do an assessment, recommend a provisional water management program, and establish long-term objectives and a foundation for the river's development. The working group found that recreational as well as wildlife and commercial uses were limited by water pollution. It recommended that further destruction and damage be prevented, that the volume of municipal and industrial waste be reduced, and that river banks be maintained and enhanced.

From that point on, a joint approach appeared necessary to solve the problems identified. The working group suggested that the most be made of all federal, provincial and municipal programs and that a wide range of stakeholders (i.e. municipalities, industry, local organizations, including the general public) co-operate and be consulted. Zoning would be based on functional characteristics: highly industrialized zones, zones with strong recreational and aesthetic potential, zones subject to economic expansion and zones with strong ecological potential.



Federal–provincial St. Lawrence
River Study Committee. In 1978, a
second working committee, the federal–
provincial St. Lawrence River Study Committee,
filed its report. Six main sources of ecosystem
deterioration were identified, including the
dissemination of toxic substances, bacterial
contamination, encroachment on the territory
of biological resources and the destruction
of aesthetic value. The Committee recommended a number of response plans, with the
main ones focussing on guaranteed quality
drinking water, the clean-up of municipal
wastewater and regulation of industrial

The Committee insisted on the need to improve the river's image among users and promote the enhancement of uses that help maintain its quality. Environmental education was the preferred means by which to rally the public.

Integrated plan for the development of the St. Lawrence River. In May 1987, in the wake of the recommendations of the Brundtland Report, the Quebec Cabinet gave the provincial departments of Transport and the Environment a mandate to propose an integrated plan for the development of the St. Lawrence River that would make it possible to harmonize resource conservation and economic development. The goal was to make the St. Lawrence River a symbol of sustainable development linking the economy and the environment. The priorities of the action plan were clearly set out: avoid any pollution of the river, ultimately attaining zero toxic discharges; restore the quality of the water and environment, beginning with the most threatened areas and addressing toxic contaminants first; and set up a new mode of economic development that makes it possible to take environmental needs into account.

Unlike preceding initiatives that were more science-oriented, this Quebec government initiative involved extensive co-operation among municipal, industrial, agricultural, environmental, tourism and university stakeholders. The Committee recommended that governments demonstrate openness to partnership and join forces with the municipalities, businesses, groups and citizens concerned.<sup>2</sup>

The call for partnership that arose from the Committee's work hinted at a major shift in outlook. Following an exercise that had brought them together, social stakeholders agreed that action needed to be taken collectively within a participatory framework that included citizens.



GOVERNMENT OF CANADA AND GOVERNMENT OF QUEBEC. Study Program for the St. Lawrence River: Canada-Quebec Report of the St. Lawrence Working Group, July 1972, p. 1.

GOVERNMENT OF QUEBEC. Le défi du Saint-Laurent: projet de mise en valeur, Plan d'action, sommaire et recommandations, rapport du comité directeur, June 1989, p. 127.

## HE ST. LAWRENCE ACTION PLAN: ENVIRONMENTAL LEAP AND COMMUNITY MOBILIZATION

In 1988, the governments of Canada and Quebec decided to join forces on a broad scale, implementing the St. Lawrence Action Plan (SLAP). This action plan was developed in response to public and group demands for widespread change in how issues related to the St. Lawrence River were managed. The SLAP built on all previous considerations, and resulted in an environmental project that would ultimately allow for the recovery of the river's former uses and the reconciliation of the river's many social vocations.

The governments established an extensive restoration, protection and enhancement program consisting of five-year plans<sup>3</sup> and the tools needed to prevent further deterioration. The program supported and complemented Quebec's wastewater treatment program and wildlife and habitat conservation and restoration programs. The entire St. Lawrence system was taken into account

in an ecosystem approach that acknowledged the mutual relationships between the land, air, water, wildlife and human activity.

Phase I of SLAP focussed on industrial clean-up and comprised four components:

- Conservation
- Protection
- Restoration
- State of the environment

Canada: \$83M Quebec: \$30M4





Phase II took an ecosystem approach and included the following components:

- Agriculture
- Decision support
- Biodiversity
- Community involvement
- Protection
- Restoration
- Health

Canada: \$84M Quebec: \$87M

Phase III focussed on community involvement and consisted of the following components:

- Agriculture
- Biodiversity
- Community involvement
- Industrial and urban
- Navigation
- Human health

Canada: \$118M Quebec: \$185M

The goal was to refocus pertinent federal and provincial programs and introduce major changes to the approaches of social stakeholders. Even if the governments were clearly resolved to clean up and protect the St. Lawrence River, the shift required could not be brought about solely from the government stakeholders.

3. 1988–1993: St. Lawrence Action Plan (Phase I); 1993–1998: St. Lawrence Vision 2000 (Phase II); 1998–2003: St. Lawrence Vision 2000 (Phase III).

4. St. Lawrence Vision 2000: 1998-2003 Five-Year Report, p. 2.

The objective required that a different dynamic be introduced, namely that of communities of people who, in one shape or form, decide to take concrete action to bring a river back to life or become responsible for the environment in which they live.



#### **Stratégies Saint-Laurent**

In 1989, in the wake of the World Conservation Strategy, the Union québécoise pour la conservation de la nature (UQCN) launched Stratégies Saint-Laurent (SSL) with eight partners that were among the most active environmental groups at the time: the Association québécoise des techniques de l'eau; the Conseil régional de l'environnement de l'Est du Québec, the Conseil régional de l'environnement du Saguenay—Lac-Saint-Jean—Chibougamau, the Corporation de protection de l'environnement de Sept-Îles, the Corporation pour la mise en valeur du lac Saint-Pierre, the Société linnéenne du Québec, and the Société pour vaincre la pollution.

The ultimate goal of SSL was to incite Quebecers to help define concrete measures to manage, monitor and restore the St. Lawrence River at the local, regional and provincial levels. The UQCN proposed to take action on three fronts: it sought to present the issue as it concerned the St. Lawrence River, raise the awareness of and encourage co-operation among the main stakeholders, and continue to raise public awareness of the river's economic and ecological importance. This organized response by Quebec environmental stakeholders resulted in individuals, the groups concerned and riverside communities making a significant contribution over 15 years to help meet SLAP objectives and have a major impact on the direction of the five-year plans.

At the hub of all this activity, SLAP set out the characteristics that would ensure its success.

Science conducive to action. Science was geared toward the acquisition of knowledge used by social stakeholders in decision-making. Thanks to the production and dissemination of regional analyses on the state of the river's health explained in layman's terms and the incorporation of popular knowledge into expert analyses, science was directly conducive to the development of local environmental action plans. It was a catalyst for community action.

Funding programs for community projects. Financial assistance is provided under SLAP to consolidate the commitment of citizens by giving them a real chance to take action. Thanks to the certain continuity of funding programs, SLAP creates opportunity and ensures continuance. Groups truly have a chance to organize their initiatives over a number of years and successfully carry out their projects. Because most initiatives have to fit in with environmental remedial action plans (ERAPs),<sup>5</sup> the projects also serve to address public concerns raised during the local consultations on which the ERAPs are based.

**New partnerships, new governance.** By promoting the pooling of knowledge and expertise acquired throughout the region, SLAP helps create a place where people can meet, give and receive training, share ideas and discuss issues related to the river and river habitat. Municipalities,

environmental groups, industry, agricultural and shipping stakeholders learn to work side by side. Together, they look for ways to restore the St. Lawrence River and use it in ways that will not lead to its deterioration. Everyone takes action and carries out projects.

Over the years, government officials and experts have established practices ensuring that, at the beginning of the new millennium, the five-year plans are at last based on community concerns. The teamwork of SSL and federal and provincial officials has helped establish a

network consisting of a large number of groups of various vocations whose objectives are related, namely clean up and protect river ecosystems, solve river use problems and help implement sustainable development across the St. Lawrence community.



Photo: Éric Labonté, Ministère de

These public plans include conservation, restoration, enhancement and awareness initiatives that were deemed to be a priority by residents in each area of prime concern.

## E EMERGENCE OF T. LAWRENCE COMMUNITY



Generally, the term "community action" refers to volunteer residents advocating the betterment of their communities. Volunteering might consist of supporting a cause, carrying out duties or work, or promoting ideas. Under SLAP, "community action" also refers to citizen action at the local or regional level and action taken by local businesses and organizations to implement SLAP objectives. "Community involvement" refers to the processes by which citizens and local stakeholders (e.g. agricultural, industrial, forestry and municipal stakeholders) become involved in analysis, consultations, decisionmaking and the implementation of initiatives related to various SLAP components.

Under Phase III of the five-year plan, a real community dedicated to co-operation and environmental action regarding issues pertaining specifically to the St. Lawrence ecosystem was born. It is made up of environmental and community groups involved in carrying out initiatives and ecological rehabilitation projects, ZIP (area of prime concern) committees comprising local stakeholders focussed on cooperation, action and problem-solving at the local level, and members of the Biosphère's Ecowatch Network.

This overview of community action development under SLAP is based on the review of the contributions of these three environmental and community groups selected for the significant gains generated by their involvement in the community network. This is not to say that they alone expressed interest in the river; nevertheless, the impact of their networking made it possible for communities to become truly involved in protecting river ecosystems and favoured the establishment of a new participatory design for the management of heritage resources in Quebec.

#### 3.1 ENVIRONMENTAL AND COMMUNITY GROUPS

Environmental and community groups played a leading role in meeting the objectives of the five-year action plans and in mobilizing the public in favour of the St. Lawrence River. They awakened the consciousness of the public, taking on the roles of lobbyists and stakeholders in the field. Who are they? Groups of citizens devoted to protecting natural areas and developing and enhancing access to the river, and conservation organizations advocating the protection of habitat or species. For many years, they worked to make their fellow citizens aware of environmental issues and looming threats, sometimes encouraging people to take concrete action by volunteering for specific activities, sometimes by serving as catalysts for establishing problem-solving structures.

Little by little, they managed to shape public opinion at the local, regional and even provincial level through initiatives covered by the media, whose interest they also had to raise. They took on the role of government lobbyists in an ongoing effort in support of scientific analyses and the implementation of anti-pollution programs. Environmental groups managed to provide both levels of government with the public support they needed to justify the major investments that followed; the groups' challenge had helped awaken the consciousness of the public and river users with respect to the environmental issues of the day and the river's limited use. They were responsible for implementing community involvement mechanisms by demanding that the public be informed of the state of the St. Lawrence River and its sources of bacterial and toxic pollution.

From the outset of the first five-year plan, environmental groups wanted public values to be taken into account in the decision-making process, as were the economic imperatives of very large users. Their demands and achievements over the course of the 15 years of SLAP fall into three categories:

- · the clean-up of river banks and habitat restoration and management;
- the application of integrated planning and collaborative approaches;
- the acquisition and management of natural areas.



#### Clean-up, restoration and management

Environmental groups initiated and stood behind a number of concrete projects for wildlife rehabilitation, habitat conservation and the acquisition and management of natural areas. A few examples are provided below.



### CLEAN-UPS – RESTORATION AND MANAGEMENT PROJECTS – INFORMATION CAMPAIGNS

Société d'animation de la promenade Bellerive

Public Clean-up of the Banks of Bellerive Promenade

Located at the eastern tip of the Port of Montreal, Bellerive Promenade is a long, narrow park that stretches more than two kilometres along the St. Lawrence River. Thanks to the Société d'animation de la promenade Bellerive, the progressively developed park today has unique observation points on the St. Lawrence River, a number of sites to access the water and learning activities. The Société also sponsors a popular springtime event to clean up its river banks.

#### Fédération québécoise de la faune

Reintroduction of Striped Bass



The Fédération québécoise de la faune aimed to reintroduce striped bass, an endangered species in Quebec, into the St. Lawrence River. It launched an awareness campaign on favourable practices among riverside residents between Montmagny and Lake Saint-Pierre. The organization also conducted an in-depth study on the habitat of the striped bass in the river to maximize the chances of its successful reintroduction.

#### Jardin communautaire Ruisseau Bois-Joli

#### Development of the Sentier Mer-Vents

It took ten years for Sept Îles' Jardin communautaire Ruisseau Bois-Joli to clean up the stream, develop its banks, restore the rainbow smelt spawning ground and plant four gardens on a once-abandoned site. By involving youth, the project also proved to be an excellent tool against violence. A salt marsh can now be observed from a new trail, which runs through two spruce stands and two alder groves. In 2004, the community garden was honoured with a Phénix award for its efforts to restore the biodiversity of a natural habitat and the green development of an urban area.

## The application of integrated planning and collaborative approaches

Early on, environmental groups promoted the co-operation of social stakeholders and integrated resource management, particularly by linking the practices of sectors (whose interconnection helped resolve environmental issues) to the sustainable optimization of performances. Inclusive forest and wildlife management and the adoption of farming practices and measures favouring wildlife habitat in farming environments are prime examples of this.

From the outset of SLAP, environmental groups introduced approaches for integrated wildlife—forest and wildlife—farming planning, watershed management and the management of multiple, year-round uses. Their involvement went beyond habitat preservation: they addressed broader issues and sought a middle ground for various stakeholders using the same ecosystem, from a sustainable development perspective.

#### **MULTI-SECTOR PARTNERSHIPS**

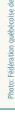
Société de conservation de Saint-Barthélemy

The Saint-Barthélemy and Saint-Joseph-de-Maskinongé Staging Areas

Since 1996, the Société de conservation de Saint-Barthélemy et de Saint-Joseph-de-Maskinongé has managed the Saint-Barthélemy staging areas, which stretch four kilometres and are a stone's throw from Lake Saint-Pierre.

The organization built a permanent observation structure in the staging areas, which were designed to attract waterfowl with particular plants and dikes to keep out floodwaters. A 100-metre footbridge was also built. From the flooded fields, visitors can better observe geese and ducks. The organization also cultivated abandoned farmland

to improve the wildlife habitat of some bird and fish species. The project raised farmers' awareness of sustainable farming practices in staging areas.





#### **Management of natural areas**

At both the local and regional levels, environmental groups agreed to serve as delegated managers. Government authorities recognized them as their agents, conferring on them some of their powers related to the management of natural areas. In this capacity or as part of their "awareness—action" mission, the groups built bridges and forged close ties with land owners, governments and industrial stakeholders for the acquisition and protection of habitat and the management of that habitat for conservation purposes or with a view to limiting public access. Such co-operation proved to be very beneficial to everyone, while serving to protect important natural areas.

For over a decade, the partnership between conservation groups and government officials served to protect and manage a large number of islands and shoreline habitats along the entire St. Lawrence River. Government departments often acquired the wetlands themselves, and then entrust their management to environmental organizations. The objectives of wildlife habitat protection set out in the five-year plans were exceeded either through the application of conservation servitudes with land owners or by government authorities giving areas "protected" status, or through the adoption of a stewardship approach or the development of response plans.

From 1988 to 1993 alone, close to 5,002 ha<sup>6</sup> of wildlife habitat were preserved; the initiatives were continued until the end of the five-year plans. For instance, five disturbed marine habitats in the Gaspé and Magdalen Islands were restored and enhanced during the second fiveyear plan, 7 and 120,000 ha of natural areas were acquired with the help of non-governmental organizations (NGOs).8 Land was also acquired to create protected area boundaries around wetlands, create staging areas for birds and prevent all development in exceptional areas. These operations were intended to set aside environmentally valuable land to provide the river ecosystem with the lungs it needs to fulfil its vital functions and preserve its health. The wetland conservation efforts in Missisquoi Bay, Baie du Febvre and Baie de Lavallière in Lake Saint-Pierre are among the most remarkable.

#### **ACQUISITION AND MANAGEMENT OF NATURAL AREAS**

Société pour la conservation de la tourbière de Lanoraie

#### Acquisition of the Lanoraie Peat Bog

The Société pour la conservation de la tourbière de Lanoraie acquired a large wetland to ensure the protection of a peat bog complex representative of the western part of the St. Lawrence Lowlands, which has been named an "ecological reserve." Today, as part of an educational program run by the Bande à Bonn'Eau de Lanoraie, the ecological reserve is open to the general public.

#### Attention Frag'Îles

#### Protecting the Natural Heritage of the Magdalen Islands

Attention Frag'Îles provided access to the Islands' dune environments through the development of a number of marked walking trails and footbridges and clearly identified parking spots. Furthermore, the installation of fences restricting traffic to specific areas helped create exclusion areas favourable to sand reed beds, which help stabilize dunes.

Another objective of the natural heritage protection organization was to lay the foundation for consultations with local stakeholders to develop a plan for the conservation of the habitat of species at risk. The plan is based on the establishment of a geographic information system specific to the Islands. Data are used to organize information sessions to raise awareness among residents and visitors of the impact some activities may



have on the habitats of species at risk, such as the use of vehicles in piping plover nesting areas or in fragile areas where rare plants grow.

Environmental groups were at the forefront of community action, while ZIP committees were taking shape and establishing themselves across the province. Subsequently, they have continued to play a leading role in terms of the number and quality of projects they have carried out and the impact they have had in ZIP committees.



<sup>7.</sup> GOVERNMENT OF CANADA AND GOVERNMENT OF QUEBEC, 1993-1998 Five-Year Report, p. 14.



<sup>8.</sup> GOVERNMENT OF CANADA AND GOVERNMENT OF QUEBEC, 1998-2003 Five-Year Report, p. 16.

#### 3.2 ZIP COMMITTEES

In 1989, as mentioned above, the UQCN and its eight partners launched the SSL program. While the UQCN sought to bring together representatives of government, regional county municipalities, industry and environmental groups from six major riverside areas on the St. Lawrence River Committee, a small team at Environment Canada had been developing the concept of "area of prime concern" (known by the French acronym ZIP) since 1988. The concept of the environmental and social zoning of the St. Lawrence River's shoreline was paired with a partnership and consultation mechanism whose main purpose was to enable residents and social stakeholders to become involved in protecting and developing their sections of the river and, ultimately, taking charge of them. The merger of the two approaches and the close co-operation between environmental groups and government officials would allow for the implementation of an original community action model and the first St. Lawrence communities, named ZIP committees

Some ZIP committees were up and running during the first five-year plan, but most would be established during the second action plan.

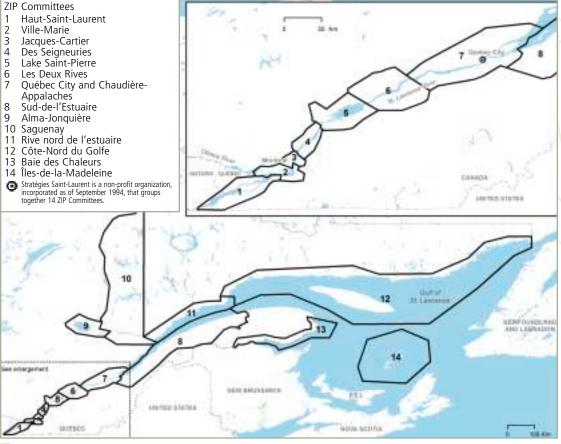
#### **Getting Quebecers involved**

As part of St. Lawrence Vision 2000 (SLV 2000 from 1993 to 1998, the second five-year plan), under the ZIP program people were provided with a structure and financial assistance for cooperation. The technical and financial support needed to take concrete action was provided under various government funding programs, including Community Interaction.

ZIP committees are local consultation organizations that also take action. Their mandate is to bring together the main users of the St. Lawrence River in their area and promote their co-operation in order to resolve local and regional issues related to river ecosystems and their uses. Thanks to the close co-operation of ZIP committees and governments' scientific experts, ZIP communities have become aware of the state of the river's health in their respective areas by means of regional environmental assessments. Public consultations, organized in each area, put communities at the heart of the process for defining the areas' priority issues. By later requiring ZIP committees to develop ERAPs, government officials gave communities the opportunity to adopt a public reference that would guide the initiatives.

Ten ZIP committees were created, 11 environmental report cards were published, 10 public consultations were held, and 11 ERAPs and an equal number of technical reports were filed during the second five-year plan (SLV 2000). The local community action model was firmly installed and was based on the balanced representation of various sectors concerned with river ecosystem issues and the reconciliation of objectives and means in anticipation of action. At the end of the third five-year plan (1998–2003), 14 committees were operational along the St. Lawrence River and 16 environmental assessments were published.

Since Phase II of the St. Lawrence Action Plan, Environment Canada has contributed most of the funding for the operations of the ZIP committees and SSL, totalling \$1.1 million per year.



QUEBEC'S ZIP COMMITTEES

Because they are recognized by the local community as a reference for carrying out the St. Lawrence Action Plan, ZIP committees attract municipalities, not-for-profit organizations and private sector stakeholders. The membership of ZIP committees varies from one region to another, with municipalities and environmental groups generally being well represented. Depending on the area and issues addressed, businesses also serve on ZIP committees. The representation of socioeconomic groups varies greatly from one ZIP to another. As government officials had hoped, local and regional stakeholders interact and co-operate on river issues in each area.

ZIP committee members take on the complex task of establishing convergence in anticipation of action, based on interests that are sometimes difficult to reconcile. They try to arrive at a consensus on the priority initiatives to be carried out in order to achieve the results sought by the ZIP community. Thanks to ZIP committees, for the first time ever, stakeholders that were unfamiliar with one another or that denounced each other publicly now find themselves sitting at the same table trying to build a common vision to rehabilitate and protect the St. Lawrence River and share information and expertise.

The co-operative approach of ZIP committees has given rise to debate on projects, whereas before, each party had dealt with decision-makers on their own. Henceforth, a new social resource would play the role of mediator, seeking co-operation, working toward consensuses and planning uses of the river. Their achievements fall into two categories:

- · knowledge, planning and action;
- joining forces to address complex issues.

#### **Knowledge, planning and action**

At first, ZIP committees focussed their efforts on gathering data on their environment and developing strategic thinking. Feasibility studies, habitat characterization, inventories, and the development of response plans and strategies for specific issues took up most of their time. This was also the era of major shoreline clean-ups, the restoration and development of valued sites for wildlife purposes, and the development of projects for community purposes.

The initiatives of all these community groups working to clean up the St. Lawrence River generated major gains. Thanks to the Community Interaction financial assistance program, 1,630 km of shoreline have been stabilized and revegetated, 82 ha of habitat have been restored or developed, and 1.828 t of waste have been collected. From 1993 to 1998, 89 projects were funded; from 1998 to 2003, 150 were funded.

New networks are being created by local stakeholders and government officials. The goal is to facilitate information sharing and set common objectives. Because of their knowledge of the area and local and regional stakeholders, ZIP committees have become key players when it comes to projects concerning the St. Lawrence River.

#### KNOWLEDGE, CLEAN-UP, RESTORATION

#### **Haut Saint-Laurent ZIP**

Sediment in the Saint-Louis River



The restoration of the Saint-Louis River took 10 years of sustained efforts to achieve concrete results. After determining the quality of the contaminated sediment in the river, the ZIP committee organized and facilitated a consultation committee, which set the following objective: the elimination of contaminants posing a health risk to residents and limiting sportfishing in that part of Lake Saint-Louis.

An initial characterization study was conducted in 1999 and determined that the river harboured close to 300 m<sup>3</sup> of contaminated sediment. In 2000, PPG Canada and Alcan Beauharnois agreed to be the proponents of the decontamination project in that section of the river and to cover the costs.

#### Rive Nord de l'Estuaire ZIP

#### Response Guide for Species at Risk and their Habitat

The North Shore is characterized by its strong marine and coastal biodiversity. It is special in that it harbours a remarkable variety of wildlife, including whales and other marine mammals. However, the estuary is also a major hub of human marine activity. The humaninduced pressure caused by the growth of ecotourism disturbs the wildlife habitat of numerous threatened subsistence species.

The purpose of the response guide is to compile and locate all direct and indirect threats to the survival of cetaceans along the northern

Institut des sciences de la mer de Rimousk

<sup>9.</sup> GOVERNMENT OF CANADA AND GOVERNMENT OF QUEBEC, 1998-2003 Five-Year Report, p. 21.





shore of the lower estuary. The area covered by the project includes the North Shore's lower estuary, from Tadoussac to Pointe-des-Monts. The impact of protective area boundaries for cetaceans will be maximized with the gradual implementation of a water trail. Awareness campaigns will be organized for the duration of the program.

#### Côte-Nord du Golfe ZIP

#### Integral Clean-Up of North Shore River Banks

The clean-up of the river banks of the North Shore of the Gulf of St. Lawrence has required a sustained effort by the ZIP committee in recent years. In such an extensive and vast area, significant financial resources are needed to meet objectives.

Since 1997, the clean-up initiative has gone through many phases during which scrap metal discarded along the coast and inland that is damaging to the soil, water and landscape has been collected. At least 6,000 t of scrap metal have been found piled at nine different sites. Scrapped cars, household appliances and other types of scrap metal have been transported on a barge to a treatment centre to be recycled.

#### Joining forces to address complex issues

Community action became one of the main components of the third five-year plan, SLV 2000 (1998–2003). ZIP committees had acquired expertise in the state of the St. Lawrence River in their respective areas, the needs and constraints of the various stakeholders, and rehabilitation and enhancement opportunities. While ERAPs were in the process of being carried out, initiatives became more complex in many areas and access to the river became a priority for communities. The complex projects involved numerous partnerships and networks mainly with municipalities, but also with industry and agricultural stakeholders. Working with governments remained a major advantage. The ZIP committees set themselves apart by their co-ordination efforts.

#### **MORE COMPLEX PROJECTS**

#### Ville-Marie ZIP and Jacques-Cartier ZIP

#### Treatment of Montreal Wastewater

Rainfall overflow from the collecting sewers of Greater Montreal municipalities is a major source of contamination of the St. Lawrence River, directly hindering the recovery of uses by residents. The presence of cross connections in some parts of the area is also a pollution problem.

The scope of the problem led to concerted action between two ZIP committees active in the Greater Montreal area. Six years of hard work, primarily intended to raise the awareness of elected officials and residents, brought about major investments to solve the problem at the source. It is now possible to foresee the opening of a few new swimming areas, on a trial basis, beginning in the summer of 2005. This wastewater project is proof that the recovery of uses by and for residents is a realistic objective.

#### Jacques-Cartier ZIP

#### Sector 103 of the Port of Montreal

In 1999, the ZIP Committee created an advisory panel bringing together parties interested in an area in the Port of Montreal long known for its hydrocarbon and heavy metal contamination. The goal

was to protect the river ecosystem and the health of riverside residents. The advisory panel was made up of representatives of three large corporations (Shell, Esso and Noranda), the Port of Montreal, the federal, provincial and municipal governments, and socio-economic and environmental groups. Upon the project's completion, more than 40,000 t of contaminated sediment had been removed from Sector 103.



#### Alma-Jonquière ZIP

#### The Restoration of Rivers in Farming Areas

The restoration of the Bédard River was launched in 1996. The river's watershed is located in an agricultural plain. It was very polluted as a result of shoreline erosion, deforestation of the river banks, farming and local municipal and industrial wastewater discharges.

The project sparked a great deal of interest in the region and was marked by strong community participation and a large variety of partners who lent a hand to make the project a success. The project led to the clean-up, stabilization and revegetation of the shoreline, the prevention of livestock access to the river, and the conservation of a three-metre protective riparian strip. Members of the community were brought into the picture through information sessions, the production of a training manual and the launch of a publicly accessible Web site. In all, 35 km of shoreline were restored, no fewer than 92,000 trees and shrubs were planted, and some 250 t of waste were removed. Furthermore, the project led to the creation of 27 partnerships and 9,200 hours of donated time. Restoration of the Bédard River was completed in 2003.

More importantly, following the Bédard River project, similar restoration projects were carried out for the Mistouk, Harts, Chicots and La Petite Décharge rivers.

Baie des Chaleurs ZIP

#### Hortus Project: a Coastal Marine Garden

As part of this project, the Baie des Chaleurs ZIP Committee built artificial reefs and installed seaweed attachment structures off New Richmond to increase productivity in Cascapedia Bay. It also set up a multipartite coastal zone management committee and adopted a philosophy based on conservation and sustainable development principles to ensure the Bay's protection. The idea for the initiative came from locals, who were committed to the enhancement and restoration of Cascapedia Bay, which once overflowed with resources, but had become a virtual underwater desert over the years.

The Hortus Project is an all around success story: from a scientific perspective, because the Bay came back to life almost immediately, according to divers' observations', and from a community perspective, since most Bay area residents lent a hand. All Bay users were consulted: commercial and sport fishers, boaters, Aboriginal people, scientists, shellfish harvesters, ornithologists, industry stakeholders, etc. Once stakeholders' needs and wants were known, the project gradually took shape and was carried out. The project was closely monitored and might one day inspire future marine revitalization projects in other parts of Canada and around the world.



The networks created by ZIPs at the local and regional level among St. Lawrence River users, as well as the links forged between environmental groups, municipalities, industry and socio-economic groups consolidate the actions of St. Lawrence riverside communities and greatly facilitate the attainment of SLAP objectives.

SSL, the ZIP umbrella organization, contributes greatly to maintaining links among organizations, at the national level.

#### **Stratégies Saint-Laurent**

SSL came into being as a result of the will to encourage riverside communities to work together to define concrete measures for and become actively involved in protecting and enhancing the river. SSL was also founded because of governments' commitment to properly co-ordinate ZIP committee initiatives. In 2002, SSL changed its mission to focus on inter-regional and national consultation. ZIP committees confirmed their need for an umbrella organization that would also promote the involvement of riverside communities in the development and implementation of the integrated management of the St. Lawrence River from a sustainable development perspective. For nearly 15 years, SSL has served as a powerful catalyst for ZIP committees, inspiring their growth and promoting links between them and outside groups. SSL has helped communities along the St. Lawrence become aware of major issues and form ties with major national and North American networks.

Over the course of the five-year plans, SSL affirmed its leadership as an organization able to support the initiatives of ZIP committees, promote the sharing of information on the St. Lawrence River and analyse issues affecting the river. The organization has gained visibility during major societal debates and at roundtables on the issues. In recent years, SSL has been fine-tuning its institutional mechanisms. It has established two commissions to promote synergy between ZIP committees: the Commission de la zone d'eau douce [freshwater zone commission] and the Commission de la zone marine [marine zone commission]. <sup>10</sup> It also established an environmental council. <sup>11</sup>

Over time, SSL has confirmed its partnership with the federal and Quebec governments. Its influence has grown. Every day and as part of major societal debates (such as the one on water management in Quebec), the organization represents thousands of persons arguing for and defending the St. Lawrence River to public and private sector decision-makers. SSL is also at the forefront in dealing with organizations such as the International Joint Commission in addressing the sensitive issue of water sharing between the Great Lakes and the St. Lawrence River.

<sup>10.</sup> The ZIP commissions are made up of two representatives of each ZIP committee, i.e. one administrator and the co-ordinator. They promote the sharing of expertise and discussion on issues and ensure the transfer of knowledge related to the St. Lawrence River.

<sup>11.</sup> The environmental council is made up of environmental organizations and is mandated to advise SSL on national issues and different global issues related to ERAPs.

#### 3.3 THE BIOSPHÈRE'S ECOWATCH NETWORK

Unlike ZIP committees, which take collective action, the third pillar of the St. Lawrence community is concerned with individual citizens. In 1995, the Biosphère established the Ecowatch Network (later known as the Observ Action Network) to mobilize individuals and encourage them to take action to protect the St. Lawrence River. To take action, individuals need to have pertinent information that has been reviewed and validated, a context that promotes the congruence of values and an environment conducive to taking action. The network's approach favours the democratization of knowledge through the development of popular knowledge and interaction between scientists and the general public<sup>12</sup>.



The Ecowatch Network was born out of the idea to establish a forum for people who want to make a personal or collective contribution for the betterment of the environment and who want to share their enthusiasm and projects with others. In the early 1990s, the concepts of environmental education and environmental citizenship were the subject of much discussion and hope. The concept of environmental citizenship in this case is based on two principles,

namely the responsibility each citizen has to become familiar with and protect his or her environment and the solidarity needed in joint action, where each individual action is added to other individual actions with a view to attaining a common goal. 13

The Ecowatch Network's initial clientele was large and inclusive. Members of the business, education and museum communities, and environmental organizations came together to discuss environmental education. Schoolchildren came in large numbers. The sharing of information, data and solutions, experiments and the sharing of experiences was encouraged through the Biosphère's Web site and at the museum itself. At the peak of its activity, the Ecowatch Network produced a number of high school networks, the most well known of

- the Freshwater Fish Ecowatch Network;
- the Adopt A River Network;
- the Great Lakes-St. Lawrence Water Quality Network;
- the Marine Mammal Ecowatch Network.

#### **ACHIEVEMENTS**

#### The Freshwater Fish Ecowatch Network

The Freshwater Fish Ecowatch Network is made up of hundreds of young people, mostly high school students, who observe and learn about fish health, notably the phenomena of blindness, parasitism and external abnormalities. Their annual catches and the results of their research, carried out as part of various science courses, serve as useful indicators that are increasingly being followed up by the scientific community.

Because they are in touch with Biosphère researchers, the students base their work methods on scientific protocol. They are encouraged to disclose the findings of their research to their classmates, as well as to local decision-makers, whose actions could bring about solutions to problems or consolidate the improvements noted.

#### The H<sub>2</sub>O Project

Since 1998, the City of Montreal, through its wastewater treatment facility, has supported projects intended to raise young people's awareness of the importance of water conservation and preservation. Interested teachers can take a one-day workshop on the city's water cycle. Together with their students, they can then choose to focus on one or more of the themes suggested: water filtration, water use or water purification. Students are encouraged to look into the city's watercourses and post their findings on the Biosphère's Web site.

#### The "Adopt A River" Project

The Comité de valorisation de la rivière Beauport, in association with the Ecowatch Network, invites young people to characterize their rivers by gathering data on the physico-chemical indicators of water, the primary indicators of a river's health. Students are also encouraged to suggest improvements or take action in their communities or among decision-makers.

Ecowatch Network activities give young people the opportunity to familiarize themselves with their natural environment, which is often limited to that found in urban centres. In a context of fostering an ongoing interest in science, young people are made aware of the importance of protecting and conserving parts of the rivers or habitats they adopt for a given period. The emphasis is on the need for them to take action in their communities and on the development of personal

environmental responsibility with respect to heritage resources. A strong team of committed teachers oversees and contributes to the experiments.



<sup>12.</sup> Thérèse BARIBEAU, Biosphère, EC, February 2003.

<sup>13.</sup> Louise ROY, Analyse et évaluation stratégique du Réseau d'observation active, November 2001, p. 17.



At the time of the second five-year plan (1993—1998), the Ecowatch Network also included environmental organizations and municipalities that shared their findings and knowledge via the Web or through the Biosphère's network. For instance, nine municipalities came together in the Great Lakes—St. Lawrence Water Quality Network to disseminate operational data on the urban water cycle. Although the network no longer exists, some municipal departments still organize large-scale awareness campaigns geared mainly toward young people. Public officials thereby act as concerned citizens, agreeing to devote time to environmental education related to the drinking water supply and wastewater treatment in urban environments.

In 2003, Ecowatch Network officials decided to focus their environmental education efforts on youth. From elementary school to university, young people are introduced to science by learning about the different facets of the water issue in their immediate surroundings.

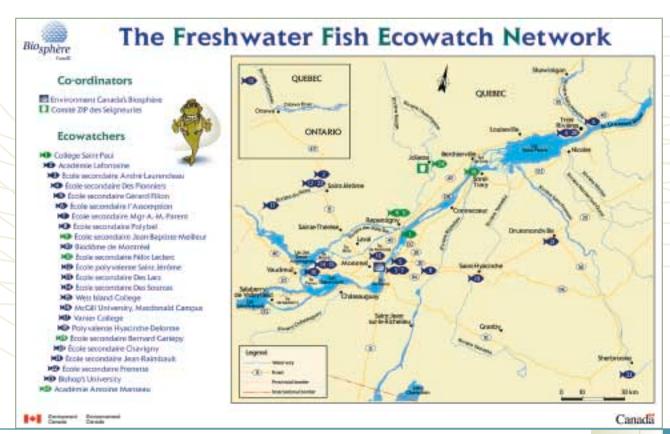
Over the course of the third five-year plan, the Ecowatch Network and ZIP committees were encouraged to work together to give young people the opportunity to become involved in their communities and to optimize awareness and environmental education initiatives in ZIP communities.

This overview of the development of community action under SLAP presents the response and achievements generated as a result of great openness to citizen involvement. In recent decades, the task of managing, which had been exclusively done by elected



officials and government partners, has taken the shape of governance that calls for more direct public involvement. In the 1970s, we asked whether it was reasonable to involve citizens. Today, we ask how citizens can be involved and to what extent they should be involved.

The community action that has marked SLAP has been a source of inspiration for other participatory management initiatives, be it the structures and networks it helped create or the approaches for environmental ownership it helped develop. Here, we are referring to the networks or approaches stemming from pressure put on decision-makers or polluting industries, as well as the joint action of social stakeholders, now partners. All of these forms of community involvement are the outcome of 15 years of concerted action. They have generated social knowledge that could be particularly useful in the future in the application of integrated management of the St. Lawrence River.







Développement durable, Environnement et Parcs

