

LE FLEUVE

NEWSLETTER
ST. LAWRENCE VISION 2000

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IN TUNE

As soon as Phase III of the St. Lawrence Action Plan was officially kicked off, teams were being set up and projects were being fleshed out in meetings with managers and researchers and the representatives of the various milieus. This issue, drafted over the summer months, is the outcome of a series of interviews conducted with the co-chairs of the cooperation committees appointed to the six fields of intervention of the new Phase III: Community Involvement, Agriculture, Biodiversity, Urban and Industrial Works, Navigation, and Public Health. Even though we are poised at the very beginning of the five-year plan, the committees have already prepared a detailed path of the activities scheduled to take place over the next five years.

Le Fleuve on the Internet

Le Fleuve will continue to report on the progress achieved in the field, albeit in a different mode. As a matter of fact, this issue of the newsletter will be the *last issue* to be printed on paper and delivered by mail. *Le Fleuve* (in its English and French versions) will soon be available on the web site of St. Lawrence Vision 2000. Given the phenomenal popularity of the Internet with most of our readership, we believe that in this way we can reach all those who hold the health and future of the St. Lawrence River dear to their hearts. Future issues therefore will be available on a computer screen near you!

The Communications
Cooperation Committee

Official Kick-off of Phase III of the St. Lawrence Action Plan

The outcome of more than twelve months of preparation and planning by both managers and government and non-government representatives concerned by the future of the St. Lawrence ecosystem, the Agreement on Phase III of the St. Lawrence Action Plan (1998-2003) was officially signed last June 8th by Ms. Christine Stewart, the Canadian Environment Minister, and Mr. Paul Bégin, Minister of the Environment and Wildlife of Quebec. The press conference was a timely event to boast the accomplishments of the first ten years of the St. Lawrence Action Plan, and to underline both the new aspects and the ongoing activities of St. Lawrence Vision 2000, Phase III (SLV 2000). The six fields of priority intervention over the five-year duration of Phase III will be: Community Involvement, Agriculture, Biodiversity, Urban and Industrial Works, Navigation, and Public Health.

Importance of community involvement and prevention endeavours

For this third five-year plan, governments have placed emphasis on *cooperation* and *community involvement*, for experience has shown that, over the years, public participation has proven to be the best guarantee for effective and relevant actions being carried out in the St. Lawrence River Valley. "In fact, involvement on the part of riverside communities is both a major objective and one of the intervention sectors of Phase III," indicates Mr. Bégin, "for the St. Lawrence can recover from the ills plaguing it only if the general public becomes actively involved, particularly the communities who live along its shore and who have daily contact with the river."

The overall budget for the Community Involvement sector rings in at \$17.2 million. *Stratégies Saint-Laurent* will continue to coordinate the ZIP program (or Priority Intervention Zone Program, but known under its French acronym), by lending support to the creation of four new ZIP committees and by guiding their steps toward the accomplishment of 150 community projects, most of which were devised during Phase II as part of the ERAP Program (Ecological Remedial Action Plans).

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Last June 8th, at the press conference announcing the signature of the new Cooperative Agreement for the Implementation of Phase III of the St. Lawrence Action Plan.

From left to right: Jean-Pierre Gauthier, Co-chair of the Agreement for Canada; Christine S. Stewart, Canadian Environment Minister; Paul Bégin, Minister of the Environment and Wildlife of Quebec; Diane Gaudet, Deputy Minister of the Environment and Wildlife of Quebec; George Arsenault, Co-chair of the Agreement for Quebec.

Urban and Industrial Works: Prevention is the watchword

In the Urban and Industrial Works sector, Phase III will be continuing the actions of the previous two phases, but will place emphasis on *prevention* and *pollution*. The first two St. Lawrence Action Plans (SLAPs) mostly targeted clean-up activities, particularly the reduction of industrial waste effluents discharged by the 106 priority industries set up along the shoreline of the river, and the financing of technological development projects. In the second phase, partners perfected a more global, ecosystemic approach, adding new intervention sectors such as public health, and cultivated the participation of riverside communities through the setting up of the ZIP Program.

"We have reached a new stage," confirms Ms. Stewart. "Results obtained to date are encouraging but, if we want to continue along these lines, the time has come to devise more preventive solutions which call for an integration of the entire production process, not only clean-up measures. Restoration and conservation activities of the ecosystems will also remain on our list of priorities, if we want to bequeath a healthy river to future generations."

Issues raised by shipping and boating

Preparatory work for Phase III highlighted the fact that shipping and boating could no longer be ignored from a viewpoint of the river's sustainable development. Plans are on the table to deal with the issues of dredging, embankment erosion control, sediment control and contaminated site management.

Biodiversity

A key component of Phase III, Biodiversity will encompass several types of intervention with a view to protect 120,000 hectares of natural habitat and 35 precarious plant and animal species. Concerns by both experts and ordinary citizens as to the environmental impact of water level fluctuations have had this matter added to the list of priorities for the Biodiversity sector. Whether they are caused by diversion works or climate change, the fluctuations have an impact, especially in wetlands and intermediary zones, where the river is not as deep.

Farming is an environmental issue

The Agricultural Intervention sector is also one of the major thrusts of Phase III. The governments of Quebec and Canada have planned for several actions to promote the adoption, by farm producers, of sustainable farming techniques, in particular, integrated pest management and the implementation of agri-environmental management measures.

Safeguarding public health

As a natural continuation of the work accomplished in Phase II, activities planned for the Public Health sector aim to both gather more information and disseminate information we already have in a fair and relevant fashion so that people can act accordingly to reduce their exposure to contaminants.

Budgets reaching \$239 million over the next 5 years

A total investment of \$239 million was announced for the activities slated for Phase III of the St. Lawrence Action Plan, as follows: \$123 million for the government of Canada and \$116 million for the government of Quebec. A portion of these amounts—\$184 million—comes from a pooling of existing resources, and a new budget of \$55 million is earmarked to support efforts to meet the expectations of the public in the improvement of the quality of the St. Lawrence River.

Normand Royette

● A Participatory Structure

A growing level of public participation and boosted cooperation among stakeholders are the inspiration behind the management plan devised for Phase III of the St. Lawrence Action Plan.

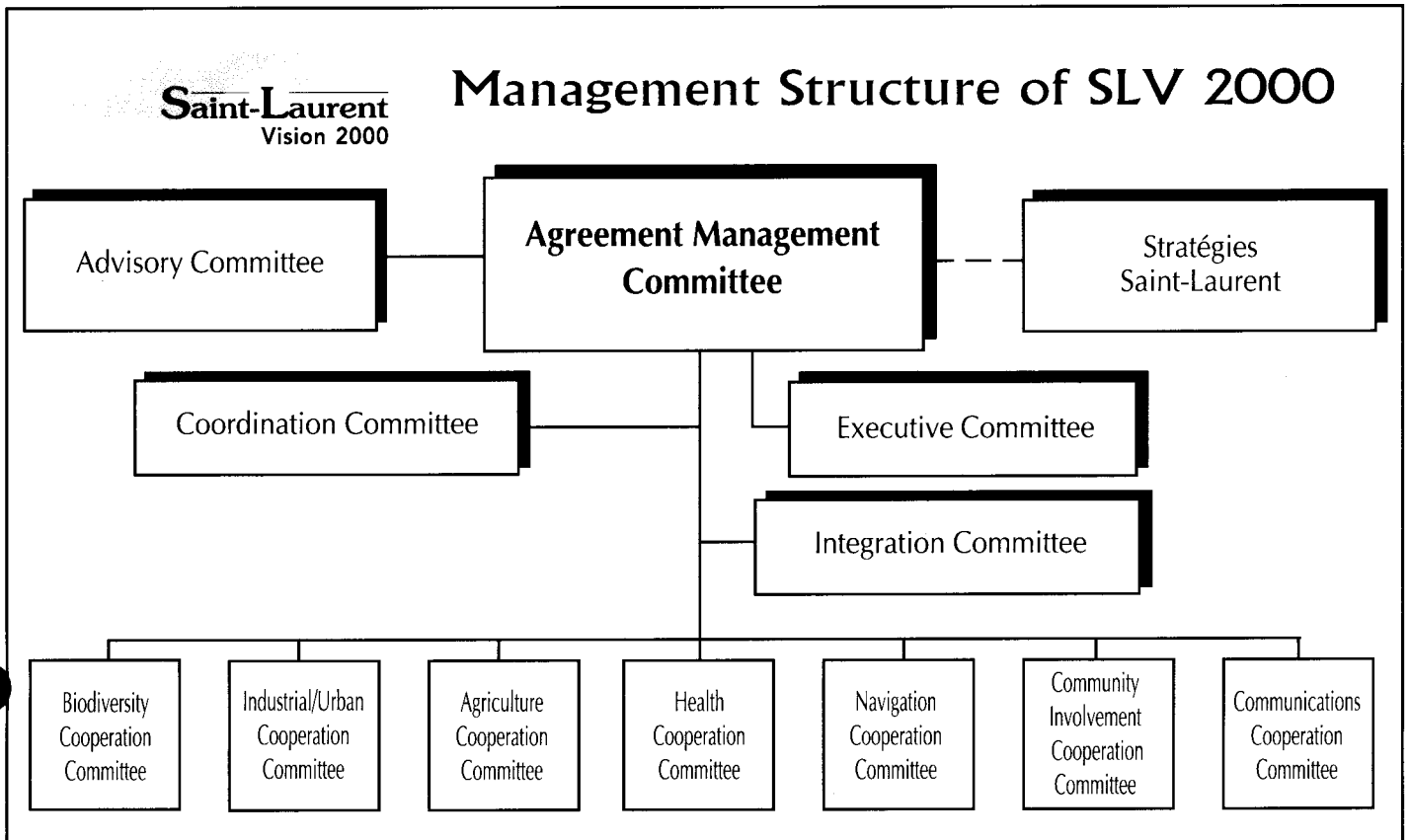
The track record of the first two phases of the St. Lawrence Action Plan and the advent of new partners in the form of government departments are the main reasons behind the decision of St. Lawrence Vision 2000 administrators to embrace a new vision based on participation from non-government partners. "We have retained several management mechanisms from the previous phases, for instance, the Agreement Management Committee (AMC) and the Advisory Committee, comments Jacinthe Leclerc, from the St. Lawrence Vision 2000 Coordination Office. "But," she adds, "we have modified some of them and added others, in order to more aptly reflect the concerted effort that can be found in the thrust of the action plan's key strategy."



Jean-Pierre Gauthier, Co-chair for Canada.



George Arsenault, Co-chair for Quebec.



The administration of the St. Lawrence Action Plan is still handled by an Agreement Management Committee (AMC), presided over by the same co-chairs: Jean-Pierre Gauthier, General Manager of Environment Canada, Québec City Region, and George Arsenault, Assistant Deputy Minister of the wildlife and natural heritage branch at the ministère de l'Environnement et de la Faune du Québec (MEFQ). In addition, the AMC is comprised of one representative from each of the partner departments of the Canadian and Quebec governments. An executive committee was set up to ensuring a smoother decision-making process.

The Advisory Committee, comprised of thirty or so members with various backgrounds reflecting the various issues at stake in the St. Lawrence, has been kept intact. Harvey Mead still heads the committee whose first-year priority will be to draw up an assessment report of the goals accomplished during Phase II and submit recommendations on the committee's mandate and its future composition throughout Phase III.

Cooperation committees will be replacing the harmonization committees as they were known under Phase II. What is different now is the fact that these committees, in addition to the departmental representatives, will be allowed to include non-government

members from the milieu concerned by the component's activities. "These people will, owing to their interest and expertise in the field, contribute to the activities aimed at improving the quality of the St. Lawrence", explains Jacinthe Leclerc. As you will recall, the primary mandate of each committee is to make sure that the expected results are delivered for each sector within the time period allotted.

Each committee is led by two co-chairs, with the exception of the Community Involvement Committee, which is the responsibility of an executive committee comprised of three people: one from Environment Canada, one from the ministère de l'Environnement et de la Faune du Québec, and a third from a grassroots organization called *Stratégies Saint-Laurent*. The co-chairs of the Cooperation Committee and the Executive Committee of the Community Involvement Committee were appointed by the co-chairs of the Agreement.

Finally, one new committee was created. It is the Cooperation Committee, whose job will be facilitating the integration of certain activities between the various sectors, and attempting to harmonize the joint interventions carried out by a multitude of partners. That committee, which brings together the two co-chairs from all seven activity sec-

tors, will ensure a greater level of cooperation between the partners and the fields of action.

Participation and follow-up

As soon as Phase III got under way, new management tools were being developed in order to come to the aid of all partners, current and former ones, in understanding the guidelines and management principles underlying the St. Lawrence Action Plan. A managerial framework will be produced that will contain all the information necessary for a smooth management of the activities held under the Action Plan.

A performance grid is also being devised to help managers assess the ongoing results over the five-year period during which Phase III will be in effect. This will be a useful tool, particularly when the time comes to compile an exhaustive review of the activities midway through Phase III, in 2001. "The review," notes Jacinthe Leclerc, "will allow for adjustments along the way if necessary, rather than waiting for the very end of the five-year period of the plan. The experience of the previous two plans has shown that this is indeed a necessary step halfway through the plan."

Notice To Our Readership

You are currently reading the last issue of the newsletter *Le Fleuve* to be printed on paper. After this issue, you may retrieve the newsletter only at the St. Lawrence Vision 2000 Web site: www.slv2000.qc.ec.gc.ca

If you do not have access to the Internet, however, you may keep on receiving and enjoying *Le Fleuve*. A printed copy (based on the electronic version) could be sent to you through the regular mail service, by fax upon request.

If however, you have an e-mail address and wish to be kept informed of new articles published to our Web site, we would be pleased to put you on our list.

If either of the above options interests you, please submit your name and address (and mode of dispatch) to Mr. Alain Petit by phone, at (800) 463-4311, by fax, at (514) 496-5513, or by e-mail, to the following address: alain.petit@ec.gc.ca

Supporting Community Action

The driving force behind Phase III, community involvement is increasingly taking the shape of concrete projects that are the fruit of studies and discussions carried out in Phase II.

"The experience we have gleaned over the past few years has taught us that community involvement cannot always be defined in the same way, depending on the social and economic context," suggests Marc Hudon, President of *Stratégies Saint-Laurent* and an executive committee member of the Community Involvement Cooperation Committee. "The values and feelings of belonging that are shared by citizens, the way in which territories are administered, the type of issues we are grappling with—these are all factors that have a significant impact on what can be accomplished within a given region."

With funding to the tune of \$17.2 million, the Community Involvement sector is the one that benefits most from the new monies allotted by government under Phase III. Two major objectives have been chosen: the creation of four new ZIPs and the completion of 150 on-site community projects. "The choice of the four new ZIPs basically hinges on the will of the people in the milieu," indicates Jean-Yves Roy, in charge of the coordination branch at the ministère de l'Environnement et de la Faune du Québec and an executive committee member of the Cooperation Committee. *Stratégies Saint-Laurent* is still the main organization which is in a position to assess the capacity of certain regions to set up a ZIP. The criteria being used to select the new ZIPs are: the will of the citizens to group together; their ability to produce an Ecological Remedial Action Plan (ERAP); and the likelihood of seeing the projects through to a successful conclusion.

"ZIPs are very important, as they are our direct link with the public," says Lynn Cleary, Manager of the St. Lawrence Centre at Environment Canada and executive committee member. "Our responsibility lies in supporting the grouping of community members, but stopping short of getting involved in the decision-making process, which is left up to the communities in question."

Seeing projects through

Meetings with citizens, like the preparation of ERAPs, have underscored the communities' desire to act. Citizens believe that we now have a good idea of the condition of the river and that it is time to implement concrete projects. "That is the stage we are at now: setting up teams that are poised to act," affirms Marc Hudon. "People are now more aware of what they can accomplish, and appreciate the need for an active partnership with the municipalities, the private sector and other organizations present in the region. The place that ZIPs occupy on the board of directors of *Stratégies Saint-Laurent* aptly reflects this trend: ZIPs have only a one-seat majority on the board now, compared to a five or six-seat majority a few years back; they can see the benefits of cooperation, and insist on other players being seated at the table alongside them."

The 150 projects that are to be carried out in the field over the next five years do not necessarily have had to be planned in an ERAP, but their objectives must work toward achieving the expected results by the end of Phase III. "Let us not forget that an ecological remedial action plan is the expression of a community's will," adds Jean-Yves Roy, "which is why these plans are relevant and important in the financing process of the projects."

The scientific and technical support that the government managers can offer the ZIPs becomes even more essential when the time comes to carry out the projects. "Our next step, incidentally, is appropriately identifying the responsibilities of the various partner departments of Phase III," states Lynn Cleary, "to ensure the best possible concerted action. We are also very much aware of the need to come up with mechanisms to measure the results of the ERAPs, given the substantial investments in this aspect of the action plan over the past few years. This will be one of our major priorities in the coming months."

Making good use of the Biosphere's Ecowatch Network

The Ecowatch Network of the Biosphere is increasingly called upon to become an information and awareness tool used by the ZIPs. "*Stratégies Saint-Laurent* as well as certain ZIPs are taking part in its activities already," explains Marc Hudon. "We are aware that it can increase the profile of ERAPs among the public, in addition to getting feedback from people on the ones which affect them personally. An important plus is the fact that the Ecowatch Network is on the Internet and thus gives us a window onto the world."

The Ecowatch Network, which now boasts 72 active members, has become an additional and high-tech means for conveying information and reaching people who wish to find out more on the condition of the St. Lawrence River.

A More Global, Preventative Approach

A more global, preventative approach with three industrial sectors—chemicals, metallurgy, and metal processing—is the continuation of efforts to reduce the levels of toxic waste being discharged into the environment, efforts that have been ongoing since the early stages of the St. Lawrence Action Plan.

The Industrial sector

"The three chemicals, metallurgy and metal processing sectors, due to the nature of their activities and procedures, can be responsible for discharging one or more of the ten most worrisome substances for the St. Lawrence ecosystems. The main thrust of the work to be carried out in close collaboration with our partners over the next five years concerns these three sectors," points out Serge Goulet, engineering head of the water purification department at the MEFQ's industrial sector policy branch and co-chair of the Urban and Industrial Works Cooperation Committee.

The seven metals—arsenic, cadmium, chrome, copper, mercury, lead and zinc—, PCBs, dioxins and furans, and PAHs which make up these ten toxic substances are not only found in liquid effluents, but can also be found in the atmosphere, in refuse and in the ground. "Thanks to the studies carried out and the findings obtained during the first two phases, we are now promoting an integrated water/air/soil/refuse approach, as all these vectors have an impact on the health of the river," comments Breda Nadon, Interim Manager of the Environmental Protection Branch at Environment Canada, and co-chair of the Cooperation Committee.

Supporting the adoption of environmental measures by SMBs

While the corrective measures implemented during Phases I and II basically addressed the issue of toxic effluents being discharged by 106 priority industrial plants, Phase III aims to be an ally of SMBs in their effort to acquire management tools with which they will be able to improve their track record not only environmentally but also economically. "Major industries," as pointed out by Serge Goulet, "are often better positioned to commission a review of its procedures to obtain

an ISO 14,000 certification than small and medium-sized businesses, which have more limited means. We hope to convince SMBs that more ecologically sound procedures can not only be beneficial to the environment, but can also allow them to cash in on major savings with regard to recycling or a reuse of manufacturing refuse, for example."

The accomplishment of 60 specific prevention projects in 20 businesses, to be carried out in each of the three target industrial sectors, is expected to have an interesting leverage effect on all industries in operation in those areas. "The approach we are taking is a voluntary one," says Breda Nadon. "First of all, we offer a support service to the industries, with the goal of implementing pollution control measures, and lead them to pursue these measure within their businesses." The findings obtained by the firms will be widely publicized, in order to stimulate similar firms into adapting the measures to their situation.

The Urban sector

In 1999, close to 98% of the Québec population living in municipalities where toxic waste is discharged into a public sewage system will see the waste treated before it is released into the environment. "Wastewater treatment plants, however, are not designed to treat all the toxins that can be found in the substances discharged," comments Serge Goulet. "Fifteen or so wastewater treatment plants were studied between September 1996 and March 1997. Of these plants, a dozen will be selected for sample-taking: those in the three major urban communities (Montreal, Quebec City and the Outaouais), along with nine other typical municipalities, to try and assess the scope of the problem. A property analysis was carried out in the summer of 1998 in five of these treatment plants, and seven others will be examined next year.

We should have a more accurate picture of the situation by that time."

An environmental award program

A few firms targeted by Phases I and II have not yet completed their toxic waste reduction programs. Phase III calls for the completion of such work. "The priority industrial plants have invested a great deal of money and energy since the outset of the St. Lawrence Action Plans, and their efforts have led to a significant drop in the level of liquid toxic waste," points out Mr. Goulet.

An award program designed to highlight this effort is in the works for the new Phase III. It is still too early to describe the program in detail, but it should help the industries desirous of showcasing their contribution to the environment for their clients and specific interest groups.

Therefore, St. Lawrence Vision 2000, throughout Phase III, will be granting recognition to the important actions performed by these firms through an official award program. It will allow the industries to demonstrate to the general public their involvement and contribution to the protection of the St. Lawrence ecosystem.

● The Concept of Sustainable Shipping and Boating Practices

Shipping and Boating is an entirely new intervention sector of Phase III of the St. Lawrence Action Plan. The current agenda calls for bringing together, around the same table, the many parties who are active in this field in order to explore solutions that will lead to a convergence of economic development and health concerns as related to the St. Lawrence ecosystems.

■ The many issues at stake involving commercial shipping and pleasure boating along the St. Lawrence are not new. Matters such as contaminated sediment, dredging and shoreline erosion, for instance, have already been brought to the attention of the authorities and have led to studies and activities being carried out in the previous stages. "This is the first time, however, that we have integrated these issues under one sole intervention sector and are dealing with them in a concerted fashion."

● "The dynamics of our approach have changed considerably since the first St. Lawrence Action Plan (SLAP) was launched in 1988," affirms Gervais Bouchard, Interim Manager of engineering services with the Canadian Coast Guard and co-chair of the Shipping and Boating sector. "The involvement of riverside communities has made people more aware than ever before that the St. Lawrence is an important waterway used by maritime and river transportation; now they are wondering about its use as such by the transportation industry and want to voice their opinions."

A concerted effort to arrive at a sustainable navigation strategy

A growing number of stakeholders—riverside communities, recreational and tourist industries, environmental groups, and the general public—are becoming more concerned about commercial shipping and pleasure boating. Consequently, maritime shipping industries and harbours must address increasingly complex environmental issues. In this perspective, a sizeable number of non-governmental representatives, representing the various users of the river, will be sitting on the Navigation Committee. "Our objective is to make this cooperation committee a locus for credible and effective collaboration through the participation and trust of all interested parties," states Jérôme Faivre from the shipping service

of the ministère des Transports du Québec, who is also the committee's acting co-chair. "As a new partner of SLV 2000, we have a great deal of coordination and planning ahead of us, in particular because the committee is a new component of the agreement, and also owing to the diverse background of the members on the committee."

Priority number one of the committee is the preparation of an exhaustive survey of the various aspects related to current shipping and boating practices, and it will look for solutions likely to improve the situation. The survey's results will then be submitted to a broad public consultation, whereupon people will be able to voice their opinions on the issues involved. Preparatory work for the carrying out of this assessment of the industry is starting this fall.

Safer boating practices

Even though the St. Lawrence is considered to be a very safe waterway, tools are being devised to improve risk management for ship captains and recreational boaters. The St. Lawrence Observatory, for example, is a virtual tool which will provide boaters with more accurate data on the prediction of water levels that will allow them to travel more safely along the river. The project is well under way, and will be in operation soon.

Dredging, shoreline erosion and contaminated sediment

Shipping and boating, shoreline erosion, contaminated sediment and dredging in the river are inextricably linked. Here again, the committee wishes to be able to address all of these issues. "We must absolutely adopt an approach to these problems that is both integrated and transparent," comments Gervais Bouchard. "To date, these issues have been raised many a time, but solutions have yet to be proposed and studied."

Shoreline erosion, for instance, is relatively well known by the experts who have looked into the matter, but what are the more effective means to control it? The type of ship, the speed, the time of year, cargos and natural factors are all important parts of the equation. The best solutions will be those that will allow for all parties concerned to take part in the decisions.

How to manage contaminated sediment is the subject of many guides published in recent years by Environment Canada, together with the ministère de l'Environnement et de la Faune du Québec (MEFQ). An updating of these management plans is on the agenda for Phase III. Moreover, the committee will be studying an integrated management approach to dredging the St. Lawrence River, a major challenge indeed.

A concept needing to be fleshed out...

"The first two action plans dealt more with pollution sources of land origin," recalls Jérôme Faivre, "but issues related to sea travel (what happens on the surface) have not been studied as much; not many useful reports have been drafted that shed light on the questions that are on the mind of all river users today. The Shipping and Boating sector is here to put into perspective the relation that exists between transportation, the environment and the condition of the St. Lawrence River."

All parties are agreed on the need to ensure the economic development of the seaway without hampering any actions taken from an environmental perspective. "We hope to set up a locus of concerted action that is sufficiently representative and strong, so that it may continue operating even beyond the year 2003," comments Gervais Bouchard. "In my opinion, that is the best way to make concrete headway in the approach to sustainable shipping and boating practices along the St. Lawrence."

Continuity and Innovation

A two-pronged challenge for the Biodiversity Intervention sector: managers and researchers must continue and step up their efforts to protect species and safeguard habitats as begun in the first two phases, all the while placing more emphasis on studies in the fields of water level management and ecosystemic monitoring.

In the past decade, the work carried out under the species and habitat conservation has led to encouraging results: 12,000 hectares of wildlife and plant habitats have been protected. We now know much more about the biological diversity that characterizes the ecosystems of the St. Lawrence River and basin, and several species at risk have benefitted from recovery plans, to cite only a few examples. The activities planned throughout Phase III are in keeping with the projects undertaken in previous years.

"Biodiversity encompasses several aspects of a given ecosystem," points out Luc Berthiaume, from the Ministère de l'Environnement et de la Faune du Québec (MEFQ), and co-chair of the Biodiversity Integration Committee. "It immediately refers us to the concept of sustainable development which is at the heart of the St. Lawrence Action Plan. That is surely why people are so keen about the objectives and the results we hope to bring about under the agreement."

Species and habitats

"We have a preliminary list of wildlife and plant species that have been designated endangered or at risk; this constitutes our starting point for the planning of activities that will take place over the next five years," explains Isabelle Ringuet, Regional Manager at the Environmental Conservation Branch of Environment Canada and co-chair of the committee. In the opinion of Luc Berthiaume, our aim is to protect 35 different plant and animal species that are at risk, but this figure could well rise, depending the findings obtained as time goes on.

The control of invasive, exotic species mainly targets the Zebra mussel, now found in all the fresh water of the St. Lawrence River/Great Lake basin and, to a lesser degree, purple *Salicaria* which has colonized up to 20% of the wetlands in the St. Lawrence Valley.



Francis Bélanger

Concerted action as to the impact of the Snow goose on wetlands and farmland is a project that will continue as well.

The objective to protect 120,000 hectares of natural habitats will be reached mostly through the change in status of the territories designated for conservation. "We would like to create three natural reserves, seven wildlife sanctuaries and three provincial parks during the course of Phase III," explains Luc Berthiaume. "We will also be completing a review of the master plans for a national park and the Saguenay-St. Lawrence Marine Park."

The restoration of structures and sites with a potentially ecological impact should be carried out with the participation of riverside residents. "The challenge is to foster a relationship with the people in each community to be able to raise their awareness to the issues and make it easier for them to become involved in the changes being made to their area," comments Mr. Berthiaume.

Problematic fluctuations in water levels

The study of the impact of fluctuating water levels is a new challenge set before the researchers involved in the current phase.

Spearheaded by the Atmospheric Environment Directorate of the St. Lawrence Centre of Environment Canada, the project will consist in designing a model which will forecast the impact of the varying water levels on the ecosystems of the St. Lawrence. "This initiative is in keeping both with the public's concerns and the desire of the International Joint Commission to review the standards for regularizing water levels," points out Isabelle Ringuet. Based on criteria which should bring about a consensus, researchers could develop a model to allow experts to choose the most appropriate action to take in accordance with environmental and economic constraints.

Monitoring the ecosystem

Finally, the matter of monitoring the ecosystem carries with it its share of difficulties. Although much has been accomplished on this subject in the previous two phases, a model still needs to be designed which will integrate ecosystems as different as the lower estuary and the fluvial section of the river. What criteria and indicators should be used to analyse the St. Lawrence ecosystem in a more global fashion? It is not solely a matter of integration of the various milieus, but also one of simplification, aimed at guiding managers on the type of action to take in the future.

● Reduction in Pesticide Use, Green Clubs and Manure Storage

The objective of Phase III is to enhance the efforts undertaken since 1992 by the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ), through its Stratégie phytosanitaire (pest management strategy) and the Programme d'aide d'investissement en agroenvironnement (agri-environment investment assistance program) (PAIA), and by the Ministère de l'Environnement et de la Faune du Québec (MEFQ), under its agricultural clean-up program and the legislation introduced in the eighties.

● Studies conducted by the MEFQ over the past several years and, more recently, under Phase II of the St. Lawrence Action Plan, revealed the presence of farm pesticides and significant concentrations of phosphorus from agricultural sources in the St. Lawrence and in a number of its tributaries. In shedding light on the impact of intensive production methods, these studies contributed to the farming community's awareness of the need to institute more environment-friendly cultivating practices. The public's growing concern and desire for farm producers to adopt more sustainable practices are acknowledged by the activities planned in the Agricultural Intervention sector of Phase III and their respective budgets.

Reduce pesticide use

Alain Verreault, Manager of the farm and natural lands sector policy branch of the MEFQ and co-chair of the Agricultural Advisory Committee believes that "while the five-year objective of reducing pesticide use by 50% and increasing the percentage of farmland under integrated pest management by 70% may appear somewhat ambitious to some, we should be able to attain these levels through the training, support and the transfer of technology we provide to Québec farm producers." Current MAPAQ estimates indicate that 15% of farmland is under integrated pest control management.

● During Phase III, MAPAQ and MEF priority will be given to activities carried out in the drainage basin. Most field crop farm enterprises are found in these areas, that is, west of the Assomption and Yamaska rivers. Activities will be directed toward apple and potato producers as well. It is felt that con-

sultation with farm producers is the best way to institute the practice of integrated pest management.

Promote closer collaboration between farm producers and agricultural specialists

"For each type of production, strategic teams made up of producers, scientists and agricultural representatives are brought together to identify the major problems affecting har-

vests," explains Denis Sanfaçon, Manager of MAPAQ's environment and sustainable development branch. "They also recommend the level of priority to be assigned to any given action. Once priorities have been established, we advise the partners of them so that they may submit projects to us for presentation to the Agricultural Advisory Committee. An example of one of our objectives would be to fine-tune agri-environmental management models or bioclimatic models.

INTEGRATED PEST MANAGEMENT

Integrated pest management is an agri-environmental approach based on experimentation and observation, that allows farm producers to manage and harvest profitable crops by treating the environment as an ally. The six steps are:

1. Identify allies and pests

It is important to first identify, and be familiar with, the different species inhabiting the farm ecosystems.

2. Investigate and evaluate the situation

The environmental conditions, the quantity of harmful organisms and the general condition of the crops all need to be assessed. In short, a good understanding of the farmland is required.

3. Use intervention thresholds

It is a matter of using the proper control tools at the right time with maximum effectiveness.

4. Adapt the ecosystem

Many farm pests live along the perimeter of the crops. Among the steps that are apt to create an ecosystem favourable to useful organisms, but inhospitable to others, are the disinfection of farm equipment, a change in seeding density and dates, and the choice of cultivars.

5. Integrate pest control methods

Integrating various control methods generally ensures a more lasting and effective reduction in the pest population while helping to reduce the risks associated with using only chemical pesticides.

6. Evaluate the impact and effectiveness of the steps taken

Every decision leads to results. The decision to use control plots and to monitor crop yield and quality helps everyone concerned gradually improve their farming methods.

Information taken from the MAPAQ brochure entitled Integrated Pest Management - Everyone Wins!

Second Edition of the Program

Thanks to the Community Interaction Program, riverside community organizations will be able to carry out their regional projects with a view to promoting the accessibility and reappropriating traditional uses of the St. Lawrence River.

We also hope to boost our knowledge of optimum pesticide doses for the various conditions producers encounter and of non-chemical measures for controlling crop pests, among other topics."

In an effort to speed up the technology transfer, technical support groups have been formed to ensure that the information is made available to all of their members. We also turn to associations such as the Union des producteurs agricoles (UPA - Québec's farm producers' union) to convey this information.

Boyer River 'green clubs'

Also slated as activities over the next five years is the establishment of five 'green clubs' for the Boyer River for the purpose of improving agri-environmental management of its drainage basin and to spur the return of smelt to the river. "One green club has already been set up," explains Mr. Verreault, "and one coordinator is already laying the groundwork for the creation of four other clubs, at a rate of one per year." In placing priority on improving the waterway, the clubs, which bring together some forty producers, should suggest actions they can take on their farms that are likely to help improve the quality of the river water.

Falling in line: farm businesses and the application of the Regulation respecting the reduction of pollution from agricultural sources in the tributaries of the St. Lawrence River

The agricultural community is already well aware of the issues of adequate livestock waste storage and rational crop fertilization. Sixty million dollars have been earmarked for the PAIA for the drainage basins in western Québec alone to assist producers in doing what is needed to comply with the legislation by the year 2003. "We provide the farmers with financial backing so they may adjust their operations in accordance with the new legislation," Denis Sanfaçon concludes.

Started up within days of the launching of Phase III, the Community Interaction Program is to be a natural follow-up to the planning and studies carried out under the Ecological Remedial Action Plans (ERAPs) prepared by the Priority Intervention Zone committees (known by their French acronym, ZIPs) under SLV 2000. The program must give priority support—but not exclusively—to the accomplishment of projects emanating from the ERAPs. "Projects that are in keeping with the global objectives of Phase III will qualify," points out Lynn Cleary, Manager of the St. Lawrence Centre at Environment Canada and co-chair of the Community Involvement Intervention Sector. "In fact, we are aiming at new initiatives that safeguard the health of ecosystems of the St. Lawrence or public health, or that promote accessibility to and the resumption of prior uses of the St. Lawrence."

Forging ties with regional partners

Designed solely for non-profit NGOs, this program is open to a wide variety of projects: clean-up actions, shoreline stabilization or replanting, the restoration of wetlands or fragile zones, public awareness and educational campaigns regarding the environment and leading to action, the building of access infrastructures that are environmentally friendly... and so on. These projects, which could take place along the stretch of the St. Lawrence River between the Québec/Ontario border to the west, continuing along the north shore until Blanc-Sablon (Magdalen Islands) to the east, and south to New Brunswick, will be designed to help protect the St. Lawrence, its tributaries, the shoreline and the wetland or fragile areas related to them.

"We intend on forging ties and deploying concerted efforts with different players of a given region," adds Lynn Cleary. "Incidentally, the program finances up to 50% of a project's allowable expenses (up to a maximum of \$100,000) and up to 70% for studies (maximum of \$30,000). The rest of the

backing must come from other sources in the area or other government programs.

The support being offered is both technical and financial. Project officers designated for the program and a pool of federal-provincial experts are on hand to guide the non-government organizations in carrying out their projects. It is also possible to consult with the ZIP committees of the various regions in order to harmonize a project's objectives with the guidelines presented in the regional ERAP and win over its support.

The total budget of the Community Interaction Program amounts to \$7 million, which is twice the amount made available during Phase II of SLAP (\$3.5 million).

Working together for a better environment

Being one of the key aspects of the Community Involvement sector, this program aims to promote public participation in efforts designed to improve the environment. The aspect will also be one of the evaluation criteria for projects, just like their consistency with the set regional priorities or the action plans.

The first deadline for the filing of project financing applications has been set for October 1, 1998. "The date may appear early, but we wanted to implement initiatives right from the first year," emphasises Jean-Yves Roy, Coordinator of the MEFQ's operational coordination branch and co-chair of the Community Involvement Intervention sector. "In addition, last June we were able to meet with all the ZIP committee heads and many community organizations. All those persons were updated several months ago as to the various aspects of the program and were in a position to convey the information to their respective communities."

The first projects selected will be announced in December 1998. To find out more, you may contact the program project officers at the following address:

St. Lawrence Vision 2000 Community Interaction

141, route de l'Église, C.P. 10100, 6th Floor
Sainte-Foy (Québec) G1V 4H5
Phone: (418) 648-3537 or 1 800 463-4311
Fax: (418) 649-6674

● Prioritizing a Better Analysis of Health Risks

During the last five years, many public health interventions have helped arrive at an assessment of the exposure to contaminants faced by riverside residents and users in their dealings with the St. Lawrence River. The activities planned for Phase III under the Health Intervention sector will allow health experts to compile more accurate statistics on specific groups of users and set up effective mechanisms to inform the public of the risks linked to the use of the river's resources.

To date, much data has been gathered on topics as varied as drinking water, recreational activities, sport fishing and fish consumption. Researchers have also been able to identify the users of the river's resources, their lifestyles, the different uses of the river and the potential risks for the public's health associated with these uses.

"SLV 2000 was the first opportunity for our participation in the St. Lawrence Action Plan," comments Sophie De Villers, of Health Canada, co-chair of the Health Cooperation Committee. "Generally speaking, our activities led us to identify and quantify the exposure that broad segments of the public risk vis-à-vis the river's contaminants. We now know so much more, which allows us to intervene in a more efficient way."

Three major objectives related to various uses of the river's resources will serve as an inspiration to the Health Intervention Program throughout Phase III.

Sports and swimming

We know today that approximately 6% of swimmers develop health problems after swimming in the St. Lawrence River. However, that figure is not very accurate, since water-related afflictions are not diseases that need to be medically declared. "We would like to make sure that people swim in the appropriate locations, since there are many such locations all along the river," points out Michèle Bélanger, from the ministère de la Santé et des Services sociaux du Québec, co-chair of the Health Cooperation Committee. "In fact, without minimizing or exaggerating the problem, we would like for people to have a clear idea of the risks related to the practice of recreational activities in the river."



These concerns can be seen in the type of projects that are slated to be carried out during Phase III. On the agenda: checking the validity of indicators used to predict the occurrence of human pathogens; health monitoring of swimming-related illnesses; a study on changing recreational habits; and a better use of information vectors to communicate health risks to the public.

Drinking water

Some persistent contaminants remain after water treatment procedures and can be found in trace levels in our water facets. This concern, although not very worrisome - since risks associated with this are minimal -, has led to a few activities being included in the projects. "We can be better acquainted with, and help reduce the risks of, the physico-chemical contamination of drinking water," comments Michèle Bélanger. "In particular, analyses will be carried out on the risks linked to the use of domestic cleaning and maintenance products and the byproducts used in the water treatment process."

Eating your daily catch

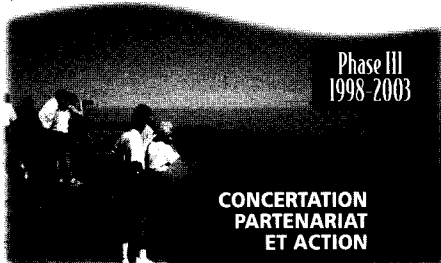
Several studies, including a portrait of the eating habits of sportfishers, were completed during Phase II of the St. Lawrence Action

Plan. The activities slated for Phase III will be aimed at identifying more specific consequences of risks to which certain groups are exposed, including sportfishers, certain cultural communities and children living on the lower north shore (15% of the latter have blood level readings of PCBs which exceed the norms set by Health Canada).

"We also want to explore the more positive side of using the resources found in the St. Lawrence, by making a survey of those used for medical purposes, for instance, or by studying the role of nutrients present in aquatic products (i.e., fish, shells and plants) on people's health," underlines Sophie De Villers. There again, the public's perception of health risks, as compared to the actual risks linked to consuming products originating from the river seem to be more negative than it should be. Endeavours to better communicate accurate information should make for a more normal situation and promote a clearer and more realistic understanding of the risks involved.

EXPLORE THE ST. LAWRENCE VISION 2000 WEB SITE

<http://www.slv2000.qc.ec.gc.ca>



THE SLV 2000 WEB SITE:

THE BEST WAY TO KEEP UP TO DATE

The St. Lawrence Vision 2000 Web Site is unquestionably the most complete and up-to-date information tool available to you on Phase III of the Action Plan and all the intervention fields.

As it now stands, five broad sections are summarized on the home page: *Action Plan*, *Partners*, *Library*, *News* and *ZIP* (Priority Intervention Zones).

The "**Action Plan**" provides information about the objectives, guidelines and various areas of activity of Phase III.

The "**Partners**" section presents the list of organizations involved in Phase III, and links allow you to surf the web sites of all the partners.

The "**Library**" provides a bibliography of publications produced under SLV 2000, including the newsletter *Le Fleuve*. Some paper publications of SLV 2000 can also be found in their entirety in their e-version under the "More Online Publications" section.

The "**News**" section contains press releases and lists current and upcoming events that concern the St. Lawrence Vision 2000 Action Plan.

The "**ZIP**" section provides a progress report on activities related to community involvement and those carried out in Priority Intervention Zones. The links will easily take you to the other sites of the ZIP committees and *Stratégies Saint-Laurent*.

October 1998

SLV 2000 Web Site

► The Web site of St. Lawrence Vision 2000 Action Plan (SLV 2000) is the main information vector relating Phase III activities taking place under the Action Plan.

Developed during Phase II, the Web site will be playing a major role throughout Phase III.

November 1998

Le Fleuve Newsletter

► Beginning in November, the newsletter *Le Fleuve* will be available only in electronic format, on the SLV 2000 Web site. However, it remains the essential link with the public and continues to reflect the efforts of all the players and partners of SLV 2000.

October 1998

Science and Research

► A directory of the major science projects and research conducted in the various activity fields of Phase III of SLV 2000 is currently being developed.

This section will briefly describe the status of ongoing or future research and projects, and lets you contact the researchers involved. Findings may also be posted at a future stage.

LE FLEUVE

NEWSLETTER St. Lawrence Vision 2000

Le Fleuve is published as a result of a group effort involving all the St. Lawrence Vision 2000 partners. It is distributed to individuals, companies and organizations concerned by the protection, conservation and restoration of the St. Lawrence River.

Communications Cooperation Committee

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