St. Lawrence Action Plan Newsletter

Vol. 4, No. 2, March 1993

Phase I of SLAP yields excellent results

P hase I of SLAP has come to an end, and it's time to take stock. In this issue, we offer you a multi-level report.

The feature on pages 3 and 4 covers the cooperative effort by government, industry, research centres and environment groups. As you'll see, SLAP has generated a promising dynamic for the future.

You'll also read about SLAP's environmental successes, outlined here in terms of the Plan's five main objectives:

- liquid toxic waste at the 50 priority plants has been reduced by 74%; the 90% objective will be reached in 1995;
- action plans for the ports of Montréal and Québec City have

been finalized and submitted to local port authorities, as called for;

- the mission to protect 5,000 hectares of wildlife habitat and create a marine park at the mouth of the Saguenay has been accomplished;
- special plans to protect certain species of mammals, fish, birds and flora are now in effect and have achieved objectives to date;
- the first complete report on the status of the river environment will be published this fall, as planned.

SLAP's work has also had significant economic spinoffs, and it is time these were officially recognized. Our data comes from a study conducted for Environment Canada by Cogesult, a management consulting firm specializing in economic surveys.

The intersectorial model developed by the Québec statistics office was used in this case.

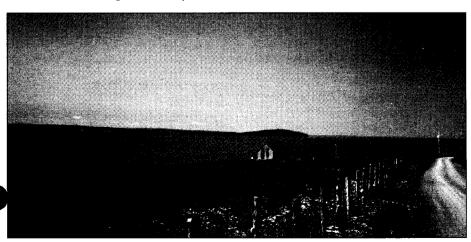
The federal government has injected \$110 million in SLAP. What kind of economic spinoffs are we actually seeing?

According to the study, private and public investment in SLAP over the last five years amounted to \$817.4 million (in 1992 dollars). The overall effect of these expenditures on manpower is calculated at 11,138 personyears. The before-tax salaries related to the expenditures are \$357.2 million. In the Greater Montréal region, the project has created 8,300 jobs, involving \$266 million in salaries.

The investment has also been profitable for the provincial and federal governments in terms of tax revenues, which were \$83.5 million and \$55.3 million, respectively.

Cogesult concludes its report as follows: "These figures clearly indicate that the private and public funds invested under SLAP are having a positive effect on the Québec economy, and the economy of Greater Montréal in particular. At the same time, both governments are deriving benefit from the program in the form of significant tax revenues."

Above and beyond the environmental benefits, SLAP seems to be one economic initiative that's paying off for both government and taxpayers.



View of the river by Danielle Gingras, St. Lawrence Centre, Environment Canada

The history of transport on the St. Lawrence at the Musée maritime Bernier

ome museums keep a low profile and get discovered during the course of one's travels. The Musée maritime Bernier is one of them. For the last 25 years, visitors to this little treasure in Islet-sur-Mer, about 100 km from Québec City along the south shore, have been learning all about the maritime history of Québec and the rest of Canada. The museum is now heading into its second quarter-century, and events are being carefully planned.

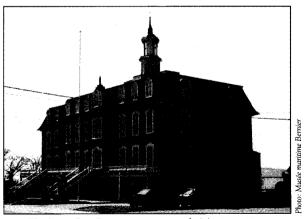
From May 1993 to October 1994, one highlight will be a special exhibit on maritime transport, featuring the involvement of the St. Lawrence Centre and the Environment Protection Branch of Environment Canada, among others. Since French colonial times, the St. Lawrence River has played an enormously important role in the development of our country. This exhibit will follow the movement of merchandise along the river in an attempt to retrace some of the major historical events in Eastern Canada.

Lumber and the fur trade, the great

explorers, general merchandise and hazardous materials will all be covered; Environment Canada is particularly involved in the last category. To fully illustrate the complexity of transporting hazardous materials, the exhibit will feature the history of an important oil spill: on May 8, 1988, the Liberian ship Czantoria crashed into the Ultramar pier at Saint-Romuald and spilled 2,800 barrels of North Sea crude into the river in just a few minutes. The accident and the emergency cleanup that followed will be illustrated on a series of panels.

A "for the public only" version of DEVERSYS will also be on display. This decision support software program used in coastal clean-up projects was developed by the St. Lawrence Centre in cooperation with the Canadian Workplace Automation Research Centre. Visitors will be confronted with a problem, and DEVERSYS will "walk" them through the clean-up process step by step, providing pertinent information along the way to help them make the right decisions.

In the fall of 1994, the exhibit will go on the road for three years, stopping in maritime and science museums across Canada. When it comes to making people aware of the dangers of transporting hazardous materials, and promoting local expertise outside the province, this is one exhibit that's hard to beat!



The former Bon-Pasteur convent, now the Musée maritime Bernier, in Islet-sur-Mer.



PARTNERS

THE DEPARTMENT OF FISHERIES AND OCEANS OF CANADA

Canada's Department of Fisheries and Oceans (DFO) is an important partner of SLAP, particularly with regard to the beluga whale, whose plight is frequently discussed in this newsletter.

Generally speaking, the DFO is responsible for the conservation of aquatic species and their habitats, for fisheries management and the quality of fish and seafood destined for human consumption. But its role in maritime emergencies is what concerns us here.

The DFO works with the Équipe régionale d'intervention pour la protection de l'environnement (the regional environmental emergency team known by its French acronym, ÉRIPE), which includes various groups that take action during environmental emergencies. In the case of an oil spill, for example, one of the Department's jobs is to inform ÉRIPE about how an oil slick is likely to behave and what effect it will have on habitats and resources. To do this, DFO scientists have perfected a simulator that helps them predict how bodies of water will behave. The system proved its worth last November 29, when an oil slick was discovered on the St. Lawrence between Sainte-Flavie and Matane. Using the simulator, the DFO anticipated that part of the slick would end up on the north shore, with another portion gravitating towards the south shore, leaving the bulk of the oil in the middle of the river. This information was extremely helpful in coordinating the clean-up.

The DFO also helps on-site crews prioritize their activities by identifying endangered species. For example, in some cases, capelin or salmon spawning grounds may be unoccupied at the time of a spill, and therefore less of a priority than, say, a bed of mollusks right in the path of the slick.

The DFO increases its expertise with every spill; the first ones to benefit are its partners in ÉRIPE and the general public.

The St. Lawrence Action Plan: Partnership in action

SLAP is two governments, five departments, fifty companies and about a hundred research centres, universities and non-governmental organizations, all functioning together.

Amazingly enough, it's all working! But how?

B eyond objectives, results and money, the St. Lawrence Action Plan represents a gigantic human challenge: to bring together administrators, scientists and ecologists of all stripes and get them to work in harmony. In this kind of partnership, nothing is taken for granted; you just keep building it one day at a time.

To ensure success, SLAP takes an open, inclusive approach to management. Consensus, attention to excellence and a will to work together with industry and those concerned with the environment are among the keys to the process.

In search of consensus and excellence

The Canada-Québec Agreement was signed in June 1989. At the heart of SLAP's administrative structure is a four-person committee made up of two people from each government. This committee handles the general administration of the agreement,

meeting once or twice a month to see how projects are doing and to deal with various problems. It is supported in its work by four harmonization committees, also jointly chaired: their areas of responsibility are restoration, status of the environment, conservation and protection. During the first few months the agreement was in effect, most of the work involved compiling a complete review of all government activities in each area, and determining which committee would do what.

"As in every organization created through a merger, things were a little difficult at first," says Jean-Pierre Gauthier, Regional Director General for Environment Canada and co-chair of the management committee. "We all had our own internal rules, which led to misunderstandings and a number of failures. But tolerance and open-mindedness kept us together. Some people felt that seeking consensus was a waste of time; today, however, almost everyone acknowledges

that patience has resulted in more satisfactory results and created a stronger sense of common purpose."

André Marsan, Québec's Assistant Deputy Minister of the Environment, notes that the management process has improved over the years. "People have learned to talk to each other and take action together," he says. He'd even like to see the management committee be expanded to include the people chairing the four harmonization committees. "Information would circulate even more effectively," he explains. "And, more importantly, it would bring the people in charge closer to the lower-level administrators, who could then react more quickly and feel more supported."

In order to ensure clear communications with the public and the environmental milieu, SLAP activities must produce precise, measurable results, and administrators must give a public account of their projects and findings. To that end, a simple system was devised for measuring the achievement of objectives, and each group submits regular reports. Still, this kind of result-oriented management system cannot work without support from other measures designed to recognize excellence among SLAP personnel.

Mr. Gauthier explains. "We're talking about excellence as defined not only in terms of major achievements, but primarily as it relates to solid, professional work. Most often, success means the ability to do a series of small jobs well. Everyone is important in that process. Every time the management committee meets, we take time to acknowledge employees whose work has been



The SLAP management committee (left to right): Michel Lamontagne, Jean-Pierre Gauthier, André Marsan and George Arsenault.

brought to our attention. We also have an official employee recognition program and make full use of the merit programs already in place in the various government departments."

The two co-chairs of the management committee are quick to add that, even under the best of conditions, things do not always work out. André Marsan points out that one problem relates to the fact that MENVIO lacks both human and financial resources. "The federal government has people committed full-time to SLAP. Here, other major concerns vie for our attention, which leaves us less time and fewer resources to devote to SLAP. I'm thinking in particular about the Programme d'assainissement des eaux usées du Québec (PAEQ)."

Working with industry and environmental groups

The essence of inter-government cooperation can be seen in the SLAP Joint Action Team, whose members come from both federal and provincial Environment departments. As most readers know, the team's objective is to get 50 industrial companies - designated "top priority" - to reduce by 90% the amount of toxic liquid effluent they discharge into the river.

"Initially, about half of these companies operated under no restrictions whatever," says André Marsan."We've adopted a persuasive approach, taking their particular interests and problems into account. It may take more time, but the results will be longer lasting. Just see what's happened already: the vast majority have cooperated voluntarily and are putting considerable effort into reducing toxic waste."

The St. Lawrence Centre helps out by promoting the development, demonstration and application of new technologies, and about 20 of the 50 priority companies have already benefitted from its input. The Centre is guided by two main principles: partnership and delegation. Its scientists put the people promoting the technology in touch with the companies that can use it, encouraging them to work out a joint project. Development and demonstration work is thus done outside the Centre, whose role is to assume some of the financial costs and to supervise the various stages in the process.

"We count on the services of expert partners recruited from the university milieu, research centres, consulting engineering firms and government organizations," says Mr. Gauthier. "All this activity adds to the expertise of the research community while creating thousands of jobs."

SLAP also encourages everyone concerned about the environment to participate in preserving the river. This environmental partnership has begun taking shape through a local consultation process in the specially designated priority sites (known by the French acronym, ZIP). These meetings, organized by Stratégie Saint-Laurent, benefit from the support of SLAP and the Pollution Prevention Program (see box below).

Ultimately, ordinary citizens are the ones who benefit from this joint action, all of which is devoted to a single cause. After all, isn't that what rationalization is really about?

The Upper St. Lawrence ZIP Committee: An example of cooperation

Stratégie Saint-Laurent, a program headed by the Union québécoise pour la conservation de la nature (UQCN), is bringing together a number of NGOs (non-governmental organizations). It is behind the creation of priority site committees (known as ZIP committees) across Québec; their objective is to involve ordinary people in developing action plans and ecological rehabilitation programs for their particular section of the river.

In the Upper St. Lawrence region, for example, local communities have recently committed to cleaning up and preventing further contamination of the river around Valleyfield, Beauharnois and Châteauguay. Five environment groups got together to form the Upper St. Lawrence ZIP Committee: Société pour Vaincre la Pollution (SVP), Action pour la défense de la nature (ADN), Crivert, Héritage Saint-Laurent and Option Verte.

About one-fifth of SLAP's "top-priority" industrial plants are in this area and many residents are not only worried about the river, they're anxious to do something to

Maryse Manseau of SVP believes that a united front is essential:

"An effective strategy for eliminating the substances polluting the St. Lawrence will require long-term cooperation from the entire community. The people in the Upper St. Lawrence ZIP must be able to take part in making decisions that affect the river. And these decisions must be based on a partnership between all levels of government, industry, business, and other professional and community organizations."

Created last June, the ZIP Committee meets regularly to deal with a variety of environmental issues. "The goal is to unite all the local players," says Marie-Josée Auclair of Environment Canada's St. Lawrence Centre. "That means we participate actively on the committee and make sure government representatives attend every meeting."

"Right now, the ZIP Committee is hard at work organizing a public information meeting for local residents. SLAP partners (Environment Canada, MENVIQ and MLCP) will present their report on the state of the environment in this particular priority site. Ultimately, we hope the process will result in concrete action and prevention plans."

ZIP committees have already been set up in the Lake Saint-Pierre, Québec City, La Baie and Baie-Comeau regions.

Québec policy on threatened and vulnerable species PROGRESS MEANS HOPE

he first part of the *Politique québécoise* sur les espèces menacées ou vulnérables was adopted in July 1992; the process of identifying threatened species of vascular plants and vertebrate animals is now well under way and significant progress has been made

Initially, the Ministère de l'Environnement du Québec (MENVIQ) and the Ministère du Loisir, de la Chasse et de la Pêche du Québec (MLCP) each analysed, respectively, the situation of vascular plants and vertebrates. "Then four main criteria were established for isolating species that have some kind of a problem," explains Michel Huot of MLCP. "These are: reduced distribution of the species in Québec, low numbers, an obvious and continued decline in population and recognition of its precarious status by other organizations, such as the Committee on the Status of Endangered Wildlife in Canada and the Canadian Museum of Nature. Of the 638 species of vertebrates in Québec, 76 were finally identified as being in trouble."

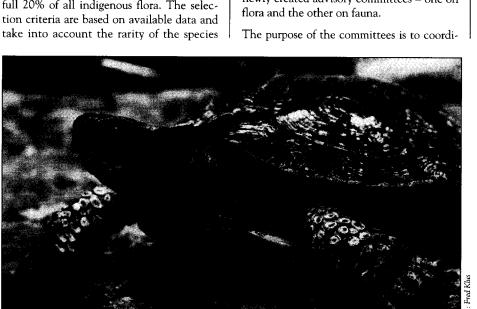
MENVIQ did the same thing with vascular plants. No fewer than 374 species are likely to be designated threatened or vulnerable, a full 20% of all indigenous flora. The selection criteria are based on available data and take into account the rarity of the species

across Canada, population fragility, current and potential threats, demographic trends and taxonomical recognition of the species.

What is the purpose of distributing lists of species only likely to be designated threatened or vulnerable? "The law specifically provides preventive measures for such species," explains Francis Boudreau of MENVIQ. "There are survival programs, for example, as well as measures to protect and restore habitats. The legal designation plan can thus be limited to 'umbrella' species as well as those requiring more serious protection."

The lists, which were made public in December 1992, are valuable work tools for everyone involved in animal and plant conservation. Their distribution in itself contributes to the survival of a number of species. The lists are being used in impact studies and are very helpful in making people aware of species in trouble in their areas.

Compiled for the first time, information of this type and various lists will be used to set priorities. As soon as they are published in the *Gazette officielle du Québec*, they will be official documents and can be used by two newly created advisory committees – one on flora and the other on fauna.



The wood turtle (Clemmys insculpta) is being studied to determine whether it should be classified as threatened or vulnerable.



Ariseama dracontium, a plant species found on the lowland islands in the St. Lawrence between Montréal and Lake Saint-Pierre.

nate the activities of all parties involved. Their specific mandate is to support the ministries when it comes to the scientific aspect of species status designation. They will also have recourse to experts in the field, which will keep them on the cutting edge of conservation science.

A balanced approach will be ensured by the committee make-up: one representative from either MENVIQ or MLCP, three representatives from the scientific community and three representatives from conservation groups.

And what is the real goal?

The committees will submit their recommendations to the MENVIQ-MLCP interdepartmental steering committee, which, in turn, may recommend that the ministries place certain species under the legal protection of a specific regulation. This will guarantee that priority species will be front row centre whenever environmental assessments are made.

This kind of concrete action means real hope for the future!

Taking concrete action to protect the invaluable resources of Lake Saint-Pierre



ere's a little quiz.
Where would you find:

- the St. Lawrence River's largest flood-plain?
- a migratory stop for more than 150,000 snow geese, ducks and Canada geese?
- 78 of Québec's freshwater fish species?
- 20% of all the freshwater marshes on the St. Lawrence?

One answer fits all: the Lake Saint-Pierre region.

More than half of all the wetlands in North America have been lost over the last 40 years, mostly due to agricultural, residential and industrial expansion. Along the St. Lawrence, the figure is greater than 70%.

But in the Lake Saint-Pierre region, only 5% of the wetlands have been lost, despite the conflict between wildlife and agriculture over use of the land, mostly involving plans to dam the floodplain.

What's the secret of Lake Saint-Pierre's success?

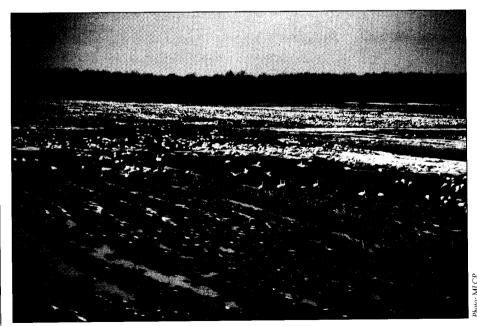
"From 1982 to 1988, concrete action was taken to protect and promote wildlife habitats within this ecosystem," explains Jean-Claude Bourgeois, a biologist with the

Ministère du Loisir, de la Chasse et de la Pêche du Québec (MLCP). "The Plan de conservation et de mise en valeur de la faune et des habitats de la région du lac Saint-Pierre and the resulting plan of action have been particularly important aspects in fulfilling our mandate in the area."

A number of projects were undertaken by two groups of partners. One group is the Eastern Habitat Joint Venture (EHJV), which includes the MLCP, the Office de planification et de développement du Québec, the Fondation de la faune du Québec, Wildlife Habitat Canada, Ducks Unlimited (Canada) and Environment Canada's Canadian Wildlife Service. Ten local non-governmental agencies also helped carry out the projects.

The other group is made up of partners in the St. Lawrence Action Plan, who were actively involved during last year's public consultation meetings organized by Stratégie Saint-Laurent with regard to their priority sites (ZIPs) program.

More than \$5 million will be spent on EHJV projects to protect more than 3,000 hectares of wetlands. "These projects are specifically designed to protect, plan and promote the value of the waterfowl migratory stop and the fish habitat," says MLCP biologist Claude Grondin.



Snow geese make a migratory stop on the Baie-du-Febvre floodplain.



BELUGA UPDATE

Good news on the beluga front! The fourth annual report of the Interdepartmental Action Plan to Favour the Survival of the St. Lawrence Beluga indicates that considerable progress has been made.

The Plan covers four main areas: the growing body of knowledge about the mammal and its habits; controlling disturbances caused by navigation; reducing toxic pollutants in the beluga habitat; and disseminating information to make the public more aware of the issue.

The report shows that the number of belugas in the St. Lawrence remains stable at about 500 whales, with young whales making up about 30% of the population.

While much remains to be done, especially with regard to decontaminating the waters of the river, the fact that population and intoxication levels have stabilized is very encouraging.

SLAP ANNUAL REPORT

The 1991-92 annual report of the St. Lawrence Action Plan is now available. It presents concrete, encouraging results achieved by SLAP over the last four years. For example, 3,860 hectares (of the total goal of 5,000) of priority wildlife habitat have been placed under government protection; plans to revitalise endangered wildlife species are under way; several practical tools of analysis have been perfected, such as Chimiotox and PEEP (Potential Ecotoxic Effect Probe); and notable progress has been made in reducing the amounts of toxic waste discharged into the river.

SLAP has played an important role in gathering information; it has also been instrumental in developing state-of-the-art tools for scientific use, and clean-up and restoration technologies for industry.

For more information, please contact:

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Ministère de l'Environnement du Québec Sous-ministériat au milieu industriel 3900 Marly Street, 6th floor Sainte-Foy, Québec G1X 4E4 Tel: (418) 643-7860 "Wetland planning primarily means reconciling the preservation of wildlife habitats with the maintenance of local agriculture."

Take the Baie-du-Febvre/Nicolet-Sud project, for example. In 1987, several farmers in the area, fearing a serious loss of income, asked the Société d'aménagement récréatif pour la conservation de l'environnement du lac Saint-Pierre (SARCEL) to help them solve their spring and fall flooding problems.

Initially, it seemed as though wildlife and farming needs were irreconcilable. But SARCEL got to work, with the result that Ducks Unlimited and the MLCP came up with a plan for the low floodlands that protected wildlife habitats while taking farming concerns into consideration. The Baie-du-Febvre/Nicolet-Sud project calls for SARCEL to purchase 500 hectares, and for Ducks Unlimited to create a permanent migratory stop and marsh on part of the land.

The project is designated top priority by the EHJV and involves a \$1.7-million investment. As owner and manager of the land, SARCEL must ensure the preservation of wildlife species and their habitats; as part of the plan to promote the area and increase public awareness, as series of paths and observation points will also be built.

Already every spring, 30,000 people come to see the wildfowl as they stop on their migration north. SARCEL is working with a number of local organizations to open a new interpretation centre in Baie-du-Febvre and many visitors are expected this year.



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THE UPPER ST. LAWRENCE ZIP COMMITTEE: AN EXAMPLE OF COOPERATION

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HOT OFF THE PRESS

UPDATE ON WATER QUALITY IN THE ST. LAWRENCE

Environment Canada's St. Lawrence Centre has just published a report on the quality of water in the river, as pertains to direct human consumption. The purpose of the report is to provide readers with basic information for evaluating and monitoring changes in water quality, and it's designed for anyone interested in environmental issues regarding the river.

The St. Lawrence is fed by water from various tributaries. The waters from these different sources often flow alongside each other over long distances before mixing together. The report's analysis takes this specific feature of the river into account.

Physical, chemical and bacteriological data are graphically represented. Results are discussed generally, then in detail, by tributary. With regard to bacteria, the quality of all the water flowing into the river is poor. Given that the St. Lawrence supplies

drinking water to more than half the population of Québec, purification is always necessary to make the water fit for human consumption.

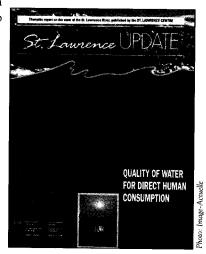
For a free copy of the report, please contact:

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Tel.: (514) 283-7000

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INTERNATIONAL GREAT LAKES AND ST. LAWRENCE MAYORS' CONFERENCE

Château Champlain Hotel, May 12, 13 and 14, 1993, in Montréal. For more information, please call the following numbers: (418) 523-7720 in Québec City; (514) 872-7537 in Montréal.

ENTEC 1993

Montréal Convention Centre, September 27-29, 1993.

For more information: MESAGO (418) 692-4880

THE MUNICIPALITIES SHOW AND THE 72nd CONGRESS OF THE UNION DES MUNICIPALITÉS DU QUÉBEC

April 1-3, 1993, at the Montréal Convention Centre (including workshops on the environment)

For information: Ginette Gauthier (514) 527-9221

IN BRIEF

SCIENTIFIC CONFERENCE ON THE ST. LAWRENCE ACTION PLAN

Every year, the Association canadienne-française pour l'avancement des sciences, known by its acronym ACFAS, features a series of scientific presentations at its annual congress. At the 61st congress, to be held from May 17-21 in Rimouski, ACFAS will welcome a large number of SLAP researchers who will present their work under the topic "The St. Lawrence Action Plan: Research Results."

Organized by Environment Canada's St. Lawrence Centre and the Department of Fisheries and Oceans of Canada, this "conference within a conference" will review the scientific research conducted under SLAP. The primary purpose of that research is to increase our understanding of the causes and effets of chemical contamination in the St. Lawrence River. Researchers from the St. Lawrence Centre, the DFO and others who have worked under the joint program set up by the St. Lawrence Centre and the Natural Sciences and Engineering Research Council (NSERC) will discuss their latest results.

The scientific conference will take place on May 18, 19 and 20, after which the highlights will be announced at a press conference. The conference is significant because it provides a unique context for reviewing the research results of Phase I of SLAP. We can expect the discussions and conclusions to be most useful to SLAP researchers and administrators as they embark on Phase II.

For more information, please contact: Hélène Perrault St. Lawrence Centre Environment Canada (514) 283-7289



St. Lawrence Action Plan Newsletter

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