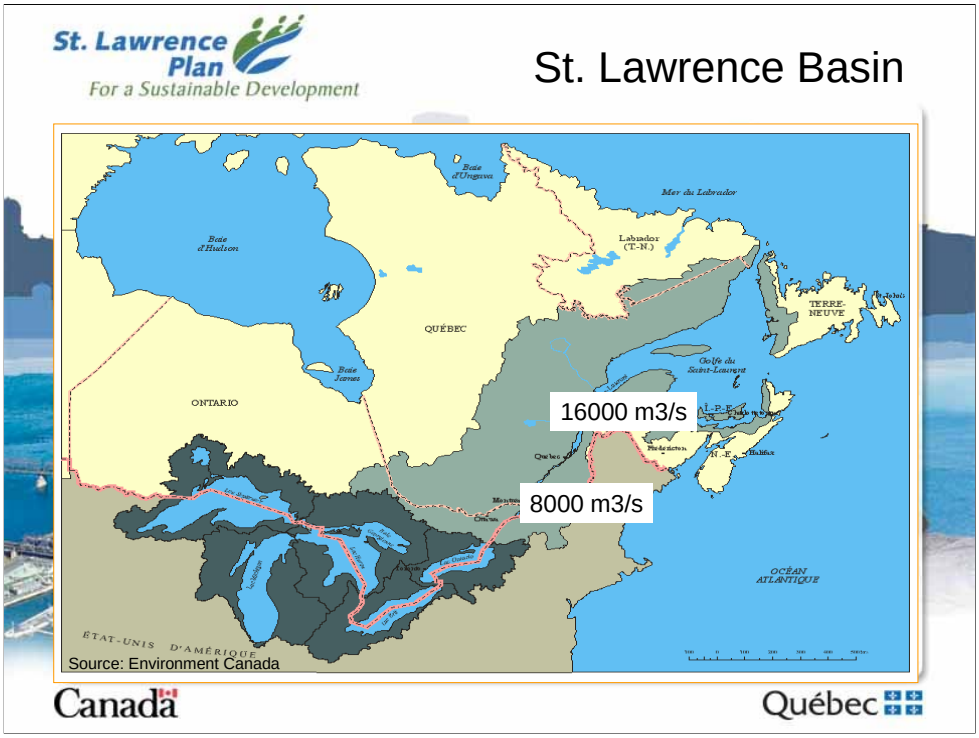
Good afternoon. My name is J.F. Bibeault, Ecosystem-based and public involvement programs for Environment Canada in the Quebec region. As a complement to Great Lakes responses, I will provide an overview on the St. Lawrence basin. The objective of the presentation is to show some examples of responses from policy to local and community action.




As shown on the map, the St. Lawrence river basin is about half the size of the province of Quebec and is as large as all the Great Lakes, although the flow is concentrated in a very limited area. Therefore, responses are adapted to the flow dynamic of this 1, 700 km long corridor.

Source: Environment Canada

St. Lawrence Plan for sustainable development 2005-2010 is a federal-provincial initiative and is the main framework used to develop priorities and action at the basin scale. This is the first level of response.

Related to previous action plans, one of the most important features is the 2004 navigation strategy addressing major related pressures on the River. This strategy was jointly developed by governments, private sector and NGOs.

Another highlight of previous action plans is the implementation in 2002 of a federal-provincial Monitoring program on the St. Lawrence River based on 21 components such as water and sediment quality, wetlands area, fish population and birds contamination. Endpoints have been established for most components.

Recently, biodiversity research program has focused on new invasive species. The most recent species is the Chinese Mitten Crab, first located in Great Lakes in the River in 2004, and found in the estuary in summer 2006. Invasive species expansion control is certainly a system-wide issue that needs to be coordinated between the Lakes and the River.

St. Lawrence Plan
For a Sustainable Development

# 2. Planning level response

Canada

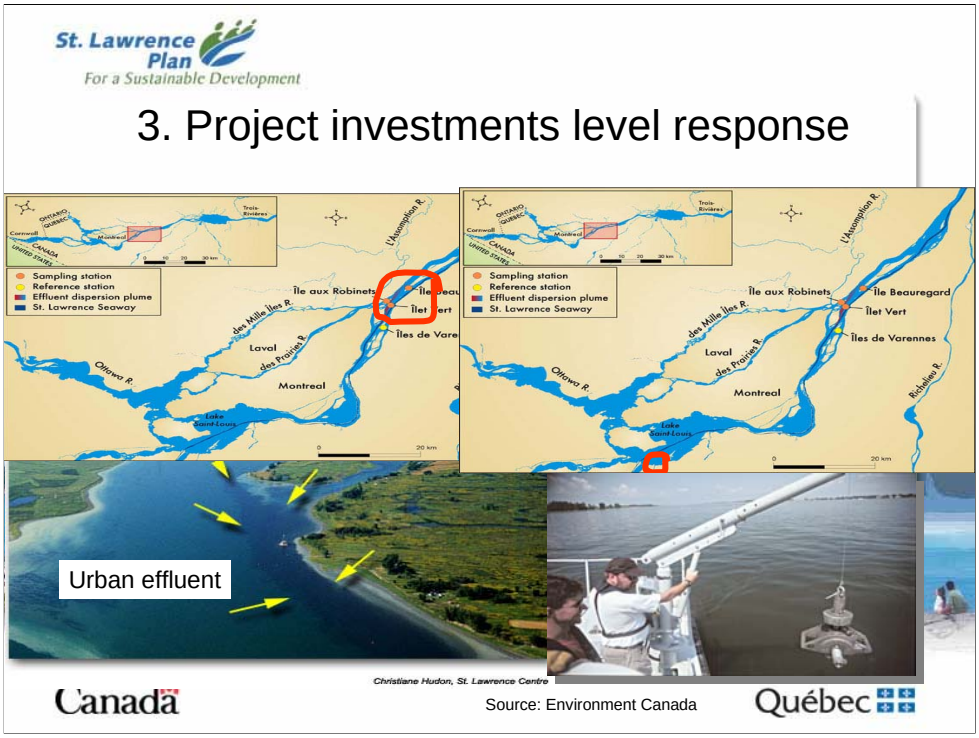
Source: Department of Fisheries and Oceans, Environment Canada

Québec

The second level of response is planning for improving environmental management. For biodiversity, the approach is to build on existing conservation areas, expanding them and ensuring the right level of protection. Then we will develop recovery plans for species at risk – many species being also at risk in the Lakes.

Reviewing sediment quality criteria in the context of an integrated dredging and disposal management plan by 2007, is another action that would help in establishing ecological endpoints for decontamination.

Developing best management plans for agriculture lands is also important from a biodiversity perspective. We expect to have preliminary environmental objectives in 2007-2008 that could be applied to some sub-basins of the St. Lawrence. Agriculture is still one of the major stressors of the basin.

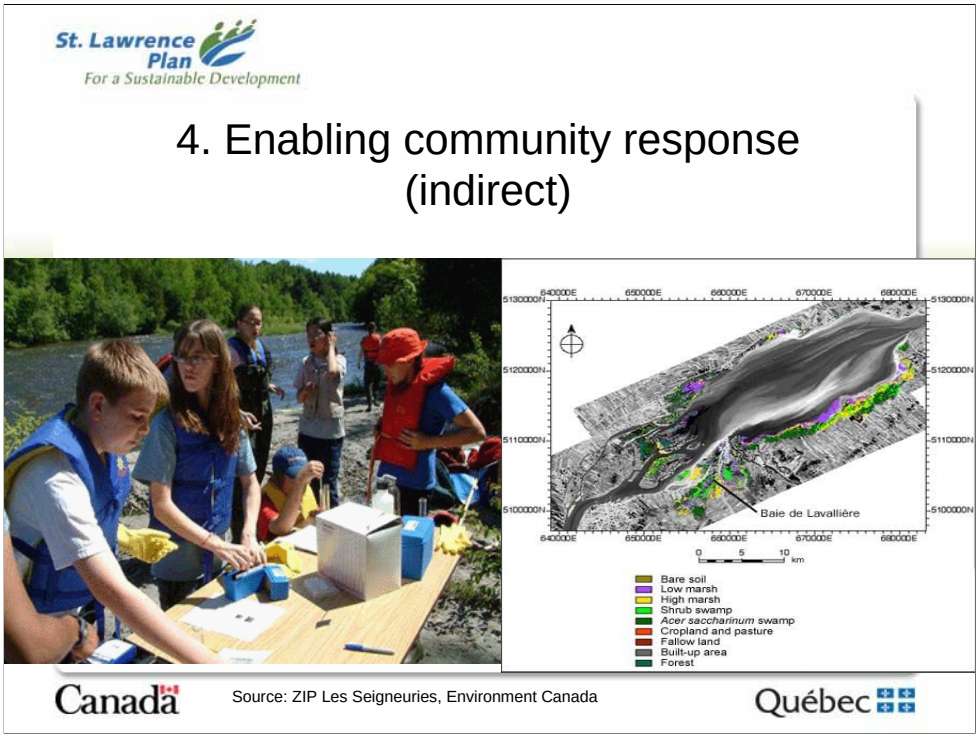


Source: Environment Canada

Major investments projects are another level of responses. One such response will be the improvement of Montreal island wastewater treatment plant based on ecological impacts. Using 2.5 million cubic meters/day, it is Quebec's most important municipal point-source of contaminants. Based on option analysis, investments will probably be done before 2010 by the city.

Other major investments are decontamination projects (as for AOC in the Great Lakes). There are three projects in Montreal area and one in Gaspe. There are all at different stages. One interesting case is the dock 103 area near the Port of Montreal, where the private sector will contribute to most of the $9.7 million costs.

Finally, there will be 5 new public access projects and improvement on public infrastructure for recreational boating, thus contributing to human beneficial uses.




On the ground level, yet equally important, is the response that is based on enhancing public involvement. Many conservation actions done in the past will be complemented by financing 150 new projects for the next 5 years. It is expected that these projects by communities will contribute to clean the river, control erosion and restore shorelines. New informational tools are in place to support these actions such as Wetlands interactive mapping (in 2005) and hydro-modelling (in 2004-2005) (with the example of Lake St. Pierre shown on the slide).

Considering that each initiative has different action scope, strength and weakness, the challenge is to assess their global efficiency based on common endpoints.

Source: Environment Canada

Governmental action has also stimulated autonomous action. For example, there is involvement of NGOs in the early warning of invasive plant in Lake St. Pierre, which is recognized as the Ramsar site. Another example is the involvement of Quebec NGOs in water level discussion and study review (since 2000). This involved collaboration with Lake Ontario communities to develop a common understanding of the ecological conditions and needs related to water levels and flow.

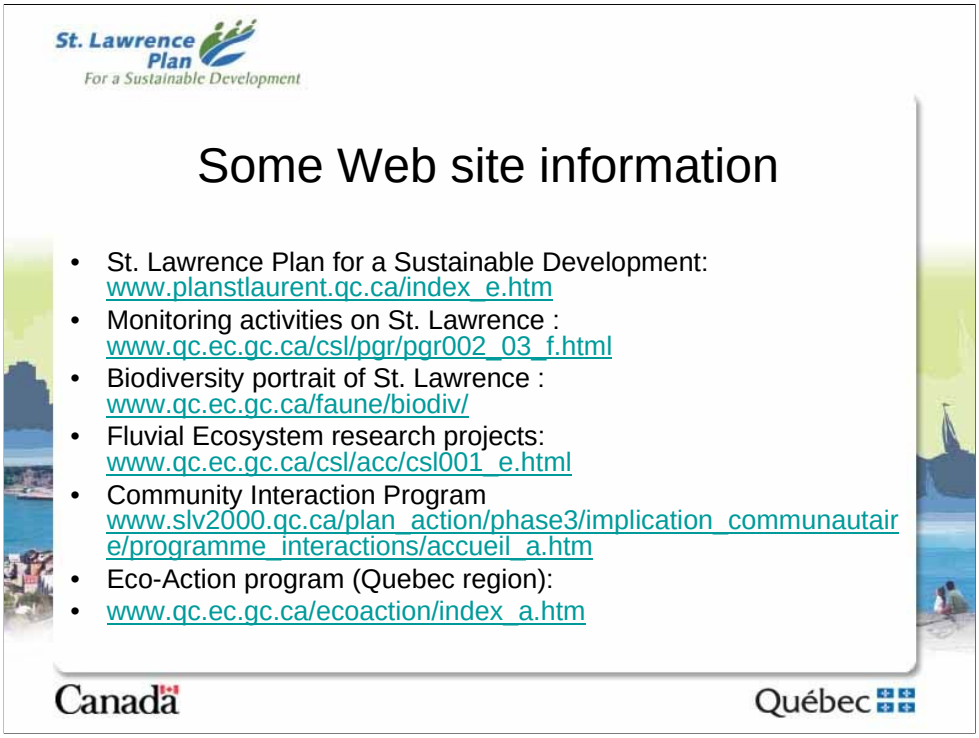
There is also a voluntary measure from shipping companies to reduce speed of ships in most ecological sensitive areas to erosion. There is a nearly 90% compliance for ships and a reduction of the erosion rate by 15% to 25 %.

Source: EMAN, Environment Canada

There are many levels and type of responses. But same questions are raised: are they efficient? Are they sufficient?

Most of the time, response indicators are developed in context of programs objectives and the link with ecological targets is often missing. Furthermore, multiple responses have synergistic effects on ecosystems, making difficult to assess any specific responses' efficiency.

One future challenge would be to develop some common approach to environmental management cumulative responses evaluation. This may be an issue that will be arise in out breakout sessions over the course of the conference.




For more information on St. Lawrence issues, the following websites can be consulted:

St. Lawrence Plan for a Sustainable Development: www.planstlaurent.qc.ca/index_e.htm

Monitoring activities on St. Lawrence : www.qc.ec.gc.ca/csl/pgr/pgr002_03_f.html

Biodiversity portrait of St. Lawrence : www.qc.ec.gc.ca/faune/biodiv/

Fluvial Ecosystem research projects: www.qc.ec.gc.ca/csl/acc/csl001_e.html

Community Interaction Program www.slv2000.qc.ca/plan_action/phase3/implication_communautaire/programme_interactions/accueil_a.htm

Eco-Action program (Quebec region):

www.qc.ec.gc.ca/ecoaction/index_a.htm