



What other initiatives are we undertaking?

We are examining the following sources that will help better understand the Lake Ontario-St. Lawrence River system:

- Hydrologic scenarios: water supply inputs in the Great Lakes, Ottawa River and other key tributaries to the St. Lawrence River;
- Recorded historical water supply and ice conditions;
- Simulated sequences of water supply conditions that reflect climate variability; and
- Climate change scenarios from Global Climate Models.

As well as examining the sequences of:

- Basin supplies to each Great Lake;
- Outflows from the Ottawa River and other key downstream tributaries;
- Hydraulic effects of ice and vegetation; and
- Existing diversions.

1 Why was the Hydrologic and Hydraulic Modeling Technical Work Group created?

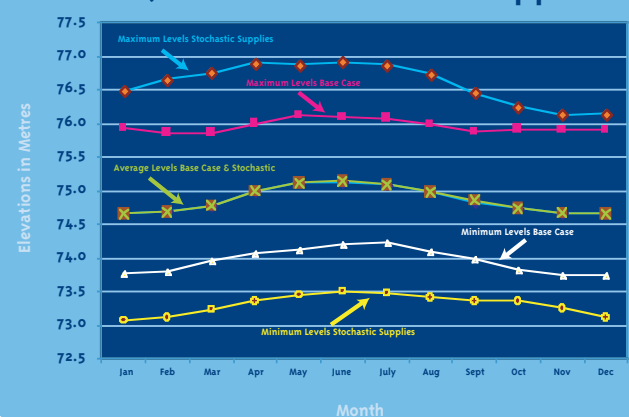
- To develop a comprehensive water supply and routing model to provide information to evaluate Lake Ontario regulation plans;
- To assist in evaluating the viability of current, improved or new regulation plan criteria; and
- To assess the hydrologic impacts on the interests identified by this Study.

2 Where is the assessment being done?

The water levels and flows assessed will include the entire Great Lakes-St. Lawrence River system through to Trois-Rivières, Quebec, including the influence of the Ottawa River.



Pre-Project Base Case & 10,000 Years Stochastic Supplies



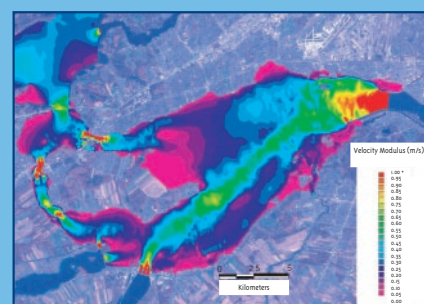
Expected Range of Lake Ontario Water Levels

3 What are our goals for the Study?

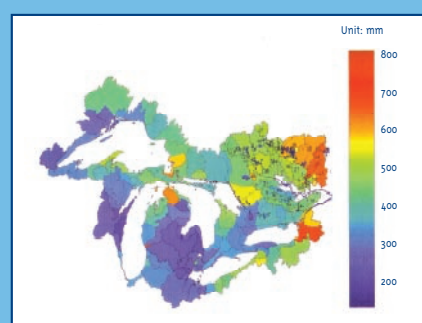
- To provide hydrologic and hydraulic modeling information that will allow other Technical Work Groups (TWGs) to develop and evaluate regulation plans;
- To simulate water levels and flows from Lake Ontario and in the St. Lawrence River to Trois-Rivières, Quebec under various regulation plans and water supply scenarios including the influence of climate variability and climate change;
- To provide weekly average water level and flow sequences and estimate within any given week the potential variability in levels and flows;
- To assist in the modeling of detailed hydraulic information, for example flow velocities and levels, water temperature, etc. as requested by other TWGs.



Simulated velocities for hydrological scenario 4P-Spring



Influence of aquatic macrophytes on velocity pattern



Mean Annual Runoff from the Great Lakes & Ottawa River system for the Base Case

Simulated velocities and direction vectors at the outlet of Beauharnois Power dam for high-discharge event

