

Ripple Effects

Étude internationale sur le lac Ontario et le fleuve Saint-Laurent
International Lake Ontario - St. Lawrence River Study

Volume 11, June 2005

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Dear Friend of Lake Ontario and the St. Lawrence River,

You are invited to attend one of our meetings this summer! The schedule with our final locations, dates and times is on the next page.

After four years of actively gathering and evaluating information, incorporating your comments, and developing models, the Study is ready to release its draft results. Briefly described inside are some of the details from our candidate plans: Plan A: the balanced economics plan, Plan B: the balanced environmental plan and Plan D: our blended benefits plan. The candidate plans will be discussed in detail during the summer meetings.

We need to hear from you! If you would like to send us written comments about the plans, please send them to the communication representative in your country before August 5. We will continue to refine our draft recommendations over the summer so that your comments can be considered and incorporated into our final report to the International Joint Commission.

We hope to see you this summer! If you would like to receive a copy of the final PIAG or Study report when it is released in 2006, please fill out and mail back the request form on the back of this volume. If you would like to stay informed regarding the progress of the International Joint Commission as they enter their decision-making phase and as the International St. Lawrence River Board of Control implements that decision, please check that box as well.

Sincerely,



Dan Barletta, D.D.S.

U.S. Lead
Public Interest Advisory Group



Marcel Lussier

Canadian Lead
Public Interest Advisory Group

*The International Lake Ontario-St. Lawrence River Study was set in motion in December 2000 by the International Joint Commission to assess and evaluate the Commission's Order of Approval used to regulate outflows from Lake Ontario through the St. Lawrence River. The Study is evaluating the impacts of changing water levels on shoreline communities, domestic and industrial water uses, commercial navigation, hydropower production, the environment, and recreational boating and tourism. The Study will also take into account the forecasted effects of climate change. The Public Interest Advisory Group is a volunteer group appointed by the International Joint Commission to ensure effective communication between the public and the International Lake Ontario-St. Lawrence River Study Team. This newsletter is published by the Public Interest Advisory Group to help keep you informed about the Study.

Summer 2005 Meeting Schedule

Before the Study prepares its final report with its recommendations for candidate plans to regulate the outflows from Lake Ontario through the St. Lawrence River, we need to hear from you. Please mark the date of the meeting nearest you on your calendar and post this notice in your area! There will be an open house beginning at 6:30 p.m. before each meeting. Our presentation will begin at 7 p.m.; followed by a question and answer session.

UNITED STATES

Wednesday, June 22, 7 p.m.

CANADA

Quality Inn
10 West Orvis Street • Massena, NY • 13662

Beacon Harbourside Best Western
2793 Beacon Boulevard • Jordan, ON • LOR 1S0

Thursday, June 23, 7 p.m.

Bonnie Castle Year-Round Resort
31 Holland Street • Alexandria Bay, NY • 13607

Delta Toronto East Hotel
2035 Kennedy Road • Toronto, ON • M1T 3G2

Thursday, June 30, 7 p.m.

No Meeting for the US section

Kawehnoke Community Center
10 Community Center Road • Cornwall Island, ON • K6H 5R7

Wednesday, July 13, 7 p.m.

Sackets Harbor Central School
215 South Broad Street • Sackets Harbor, NY • 13686

City Hall
169 Front Street • Belleville, ON • K8N 2Y8

Thursday, July 14, 7 p.m.

Captain's Steak & Seafood Restaurant
27 East First Street • Oswego, NY • 13126

Emergency Hall • Sir Mackenzie Bowel Room (3rd Floor)
30 King Street East • Gananoque, ON • K7G 26T

Wednesday, July 20, 7 p.m.

Cutter's Restaurant
6483 Catchpole Shore Road • North Rose, NY • 14516

Cornwall Civic Center
100 Water Street • Cornwall, ON • K6H 6G4

Thursday, July 21, 7 p.m.

Greece Town Hall • Eastman Room
1 Vince Tofany Boulevard • Greece, NY • 14612

Hampton Inn and Suites
1900 Tran-Canada Highway • Dorval, PQ • H9P 2N4

Thursday, July 28, 7 p.m.

Olcott Fire Hall
1691 Lockport - Olcott Road • Olcott, NY • 14126

Auberge de la Rive Sud
165 Chemin Sainte-Anne • Sorel, PQ • J3P 6J7

Candidate regulation plans are complex – please attend!

Contact Us

If you are interested in sharing your concerns about water levels in Lake Ontario and the St. Lawrence River, would like to receive more information about the Study, or would like to participate in one of our meetings, please contact the communication representative in your country.

United States

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Visit the Study website at www.losl.org !

Vision, Goal, and Guidelines

The Vision, Goal, and Guidelines below were used by the Study Board to make their decisions regarding the candidate plans below.

According to the Commission's directive, the Board's mandate is to undertake studies required to provide the Commission with the information it needs to evaluate options for regulating water levels and flows in order to benefit affected interests and the Great Lakes - St. Lawrence River system as a whole in a manner that conforms to the requirements of the Boundary Waters Treaty. The Board is guided by this mandate in pursuing its studies. To meet this mandate, the Board has adopted a vision and goal and developed the following guidelines for its activities as the foundation for providing advice to the Commission.

Vision

To contribute to economic, environmental and social sustainability of the Lake Ontario and St. Lawrence River System.

Goal

To identify flow regulation and criteria that best serve the range of affected interests, are widely accepted by all interests, and address climatic conditions in the basin.

Guidelines

1. Criteria and Regulation Plans will contribute to the ecological integrity of the Lake Ontario - St. Lawrence River ecosystem.
2. Criteria and Regulation Plans will produce a net benefit to the Lake Ontario - St. Lawrence River System and its users and will not result in disproportionate loss to any particular interest or geographic area.
3. Criteria and Regulation Plans will be able to respond to unusual or unexpected conditions affecting the Lake Ontario - St. Lawrence River System.

4. Mitigation alternatives may be identified to limit damages when considered appropriate.
5. Regulation of the Lake Ontario - St. Lawrence River System will be adaptable to the extent possible, to accommodate the potential for changes in water supply as a result of climate change and variability.
6. Decision-making with respect to the development of the Lake Ontario - St. Lawrence River System Criteria and Plans will be transparent, involving and considering the full range of interests affected by any decisions with broad stakeholder and public input.
7. Criteria and Regulation Plans will incorporate current knowledge, state-of-the-art technology and the flexibility to adapt to future advances in knowledge, science and technology.

The Plan Formulation and Evaluation Group (PFEG) has been working hard to develop best options for the Board to consider. Although plans have been developed which provide optimal conditions for singular interests, namely the environment, shoreline properties and recreational boating, it was found that these result in disproportionate losses or would require substantial mitigation, and were not considered viable in view of the guidelines listed above.

The following paragraphs describe three options, which the Board considers promising and which will be presented in detail during the public meetings this summer. These three plans will continue to be refined and will incorporate comments received during those meetings:

Candidate Plans

Plan A: Balanced Economic Plan

- Designed to maximize overall economic benefits.
- Provides some improvement for the environment, especially on the Upper St. Lawrence River
- Has losses to shoreline interests on Lake Ontario and the River.
- Provides recreational boating benefits.

Plan B: Balanced Environmental Plan

- Designed to simulate more natural conditions and provide overall economic benefits.
- Improves the environment on the Lake and Upper River.
- Has losses to shoreline interests with significant flooding potential around Montréal.
- Has losses to recreational boating, especially on the Lake.

Plan D: Blended Benefits Plan

- Designed for balanced performance, with overall economic benefits and minimizes losses.
- Little change from 1958D with deviations (1958DD) for the environment.
- No overall losses for shoreline interests, but some flooding potential.
- Provides recreational boating benefits.

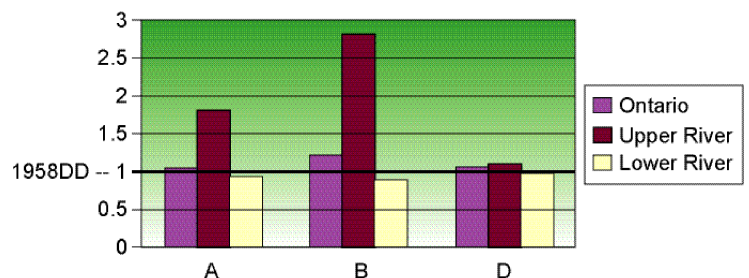
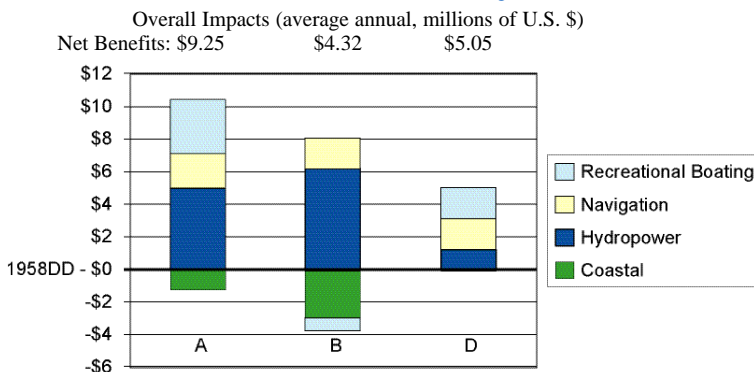
The figures below show the impact that each of the plans have in terms of economic factors related to interests and the environment compared to the current operational plan, Plan 1958D with deviations (Plan 1958DD).

The "Economic Impacts" figure shows average annual values for Recreational Boating, Navigation, Hydropower and Coastal as a total value for all regions. Note that for Plan D, the value for Coastal is positive, but small.

The "Environmental Impacts" figure shows impacts for the three regions. A value of 1 indicates no change. Values above 1 are an improvement over 1958DD conditions and below 1 are not as good as 1958DD.

Overall Regional Economic Impacts
For Plans (1958DD = \$0 = no change)

Overall Regional Environmental Impacts
For Plans (1958DD = 1 = no change)



Plan Evaluation

The information provided on these two pages is our attempt to display the factors considered of environmental and economic indicators. Keep in mind that if a new plan is not selected plan.

Environmental Performance Indicator Results (Ratios)

The tables below show the performance of each of the three plans in relation to environmental indicators as compared to Plan 1958DD. The numbers indicate whether a plan is better or worse than Plan 1958DD. For example, 1.43 means the candidate plan improves conditions by 43% and 0.86 means the candidate plan is 14% worse than 1958DD.

Lake Ontario			
Indicator	Plan A	Plan B	Plan D
Wetland meadow marsh community	1.14	1.43	1.17
Low vegetation - spawning habitat at 18°C (64°F)	0.89	0.95	0.92
High vegetation - spawning habitat at 24°C (75°F)	1.04	1.00	1.02
Low vegetation - spawning habitat at 24°C (75°F)	1.00	1.03	1.01
Northern Pike - young of year recruitment	1.01	1.00	1.04
Largemouth Bass - young of year recruitment	0.95	0.98	0.97
Least Bittern - reproductive index	0.91	1.07	0.95
Virginia Rail - reproductive index	0.96	1.11	0.95
Black Tern - reproductive index	0.99	1.12	0.97
Yellow Rail - preferred breeding habitat	0.97	1.01	0.98
King Rail - preferred breeding habitat	1.05	1.10	1.04
Upper St. Lawrence River			
Low vegetation - spawning habitat 18°C (64°F)	1.01	1.01	1.02
High vegetation - spawning habitat at 24°C (75°F)	1.02	1.01	1.03
Low vegetation - spawning habitat at 24°C (75°F)	1.01	1.01	1.02
Northern Pike - young of year recruitment	1.04	1.03	1.01
Largemouth Bass - young of year recruitment	1.00	1.00	1.01
Northern Pike - young of year net productivity	3.17	2.16	1.02
Virginia Rail - reproductive index	1.23	1.25	1.31
Muskrat - house density in drowned river mouth wetlands	2.52	5.22	1.04

Lower St. Lawrence River			
Indicator	Plan A	Plan B	Plan D
Golden Shiner - suitable feeding habitat area	1.03	1.03	1.00
Wetlands fish - abundance index	0.94	0.87	0.84
Migratory wildfowl - habitat area	1.03	1.00	0.94
Least Bittern - reproductive index	1.03	1.06	1.00
Virginia Rail - reproductive index	0.94	0.97	1.03
Migratory wildfowl - productivity	1.06	1.00	1.00
Black Tern - reproductive index	0.81	0.77	1.03
Northern Pike - reproductive area	0.94	0.97	0.90
Frog species - reproductive habitat surface area	0.77	0.90	1.06
Eastern Sand Darter - reproductive area	1.13	1.06	1.06
Spiny Softshell Turtle - reproductive habitat surface area	1.06	1.06	1.03
Bridle Shiner - reproductive habitat surface area	1.03	0.97	1.00
Muskrat - surviving houses	0.96	0.72	0.88
Overall Environmental Index			
Indicator	Plan A	Plan B	Plan D
Environmental Performance	1.15	1.41	1.03

Key

Light blue shading in these charts identifies a species at risk.

Blue numbers (>1) are better than 1958DD
Blue numbers are the best

Yellow shaded areas are essentially the same as 1958DD

Red numbers (<1) are worse than Plan 1958DD

Study Board when evaluating these three plan options. Selecting a plan is extremely complex and requires consideration of a large number of operational plan, Plan 1958D with deviations (Plan 1958DD) will remain in place. The numbers in these tables are compared to that

Net Economic Benefits

The tables below indicate the net economic benefits or losses of each plan for the interests as compared to 1958DD. The numbers are the average annual benefits or losses in millions of dollars over a time series of historic water levels.

Coastal Processes (Shoreline Interests)			
Indicator	Plan A	Plan B	Plan D
Lake Ontario	-\$0.59	-\$0.71	\$0.18
Shore protection maintenance	-\$0.30	-\$0.66	\$0.20
Erosion to unprotected developed parcels	-\$0.04	-\$0.04	\$0.00
Flooding	-\$0.25	-\$0.01	-\$0.02
Upper St. Lawrence River	-\$0.25	-\$0.18	-\$0.11
Shore protection maintenance	\$0.00	\$0.00	\$0.00
Erosion to unprotected developed parcels	\$0.00	\$0.00	\$0.00
Flooding	-\$0.25	-\$0.18	-\$0.11
Lower St. Lawrence River	-\$0.26	-\$1.99	\$0.07
Flooding	-\$0.20	-\$2.05	-\$0.03
Shore protection maintenance	-\$0.06	\$0.05	\$0.10
Coastal Processes Overall	-\$1.10	-\$2.88	\$0.13
Commercial Navigation			
Indicator	Plan A	Plan B	Plan D
Lake Ontario	-\$0.03	-\$0.02	-\$0.01
St. Lawrence Seaway	\$2.27	\$2.05	\$1.93
Montreal down	-\$0.05	-\$0.07	\$0.03
Commercial Navigation Overall	\$2.19	\$1.96	\$1.95
Water Uses			
Indicator	Plan A	Plan B	Plan D
St. Lawrence River - One time infrastructure costs	\$0.00	\$0.00	\$0.00
Lake St. Lawrence - Water quality investments	\$0.00	\$0.00	\$0.00
Water Uses Overall	\$0.00	\$0.00	\$0.00

Hydroelectric Power			
Indicator	Plan A	Plan B	Plan D
New York Power Authority - Ontario Power Generation	\$4.18	\$4.79	\$1.07
Hydro Quebec	\$0.79	\$1.32	-\$0.04
Hydroelectric Power Overall	\$4.97	\$6.11	\$1.02
Recreational Boating and Tourism			
Indicator	Plan A	Plan B	Plan D
Above the Moses-Saunders Dam	\$1.07	-\$0.87	\$0.36
Lake Ontario	\$0.60	-\$0.77	\$0.13
Ogdensburg	-\$0.26	-\$0.10	-\$0.17
Alexandria Bay	\$0.73	\$0.00	\$0.40
Below the Moses-Saunders Dam	\$2.11	\$0.00	\$1.59
Lake St. Louis	\$1.14	\$0.17	\$0.81
Montreal	\$0.73	-\$0.06	\$0.60
Lake St. Pierre	\$0.24	-\$0.11	\$0.18
Recreational Boating and Tourism Overall	\$3.18	-\$0.87	\$1.95
Net Economic Benefits			
Indicator	Plan A	Plan B	Plan D
Net Economic Benefits	\$9.25	\$4.32	\$5.05

Key

All numbers are average annual benefits or losses in millions of dollars

Blue numbers signify a gain in economic benefits compared to 1958DD

Red numbers signify a loss in economic benefits versus 1958DD

\$0.00 indicates no benefit or loss.

PIAG Speakers Bureau

The Public Interest Advisory Group membership would like to meet with you. A representative in your area can give a presentation about the Study to your group, no matter the size. Please contact the communications staff listed at the end of this newsletter to request a presentation.

United States

Dan Barletta, D.D.S. - Rochester, NY
Thomas McAuslan - Oswego, NY
Tony McKenna - West Amherst, NY
Jon Montan - Canton, NY
Carol Simpson - Massena, NY
Henry Stewart - Rochester, NY
Max Streibel - Rochester, NY
Paul Thiebeau - Clayton, NY
Scott Tripoli - Mannsville, NY
Stephanie Weiss - Clayton, NY

Canada

Marcel Lussier - Montréal, PQ
Larry Field - Toronto, ON
Michel Gagné - Montréal, PQ
John Hall - Burlington, ON
Marc Hudon - Trois-Rivières, PQ
Elaine Kennedy - Cornwall, ON
Captain Ivan Lantz - Montréal, PQ
Sandra Lawn - Prescott, ON
Paul Webb - Brockville, ON
Al Will - Hamilton, ON

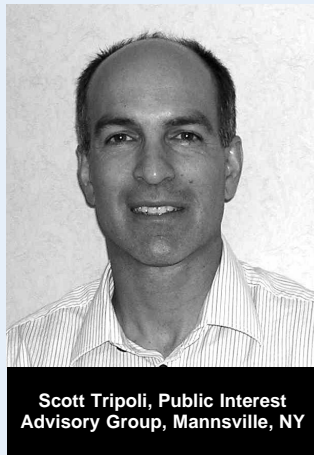


Photo - Arleen Kreusch

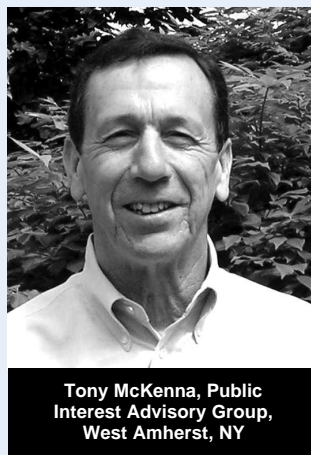


Photo - Arleen Kreusch

Featured in our Next Issue

Synopsis of the Study's final report to the International Joint Commission.

Study Board Members

United States

Dr. Gene Stakhiv (Co-director) - Alexandria, VA
Dr. Daniel Barletta (PIAG Co-Lead) - Rochester, NY
Dr. Tony Eberhardt (General Manager) - Buffalo, NY
Sandra L. LeBarron - Watertown, NY
Dr. Pete Loucks - Ithaca, NY
Dr. Frank Quinn - Tecumseh, MI
Dr. Frank Sciremammano - Rochester, NY
James Snyder - Hogansburg, NY

Canada

Doug Cuthbert (Co-director) - Burlington, ON
André Carpentier - Quebec, PQ
Lynn Cleary - Quebec, PQ
Ian Crawford - Peterborough, ON
Ed Eryuzlu (General Manager) - Ottawa, Ontario
Henry Lickers - Cornwall, ON
Marcel Lussier (PIAG Co-Lead) - Brossard, PQ
Dr. Steven Renzetti - St. Catharines, ON

HELLO,

- I would like a copy of the PIAG's Final Report (available in 2006). Printed CD
- I would like a copy of the Study's Final Report (available in 2006). Printed CD
- The final edition of Ripple Effects will be released in December 2005. I would like to be added to the International St. Lawrence River Board of Control mailing list to be kept informed of progress regarding decision and implementation once the Study is finished.

My name and corrections, if any, to my mailing label are below.

Name: _____

Organization: _____

Address: _____



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If the International Joint Commission does not accept any of the Study's candidate plans, Plan 1958D with deviations (1958DD) will continue to be used for the regulation of outflows from Lake Ontario through the St. Lawrence River.

Please let us know how you rank the candidate plans:

Which plan do you rank first in overall performance: Plan A Plan B Plan D

Which plan do you rank second in overall performance: Plan A Plan B Plan D

Which plan do you rank third in overall performance: Plan A Plan B Plan D

Mark any plan which is totally unacceptable to you under any circumstances: Plan A Plan B Plan D

Mark any plan that has any unacceptable losses: : Plan A Category: _____ Area _____
Plan B Category: _____ Area _____
Plan D Category: _____ Area _____

Are any of these plans more acceptable to you than the status quo (1958DD): Plan A Plan B Plan D

It would be helpful for us to know which geographic area you represent: Upper River Lower River Lake Ontario

Which interest do you represent? Environmental Shoreline Interest Recreational Boater Hydroelectric
Commercial Navigation Water Uses Other _____

Additional Comments: _____

International Joint Commission
U.S. Secretariat Study Office
1776 Niagara Street
Buffalo, NY 14207

1st fold here

Please
affix
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St. Lawrence River Study Office
1776 Niagara Street
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Tape closed here