

**9th PROGRESS REPORT  
to the  
INTERNATIONAL JOINT COMMISSION  
by the  
INTERNATIONAL LAKE ONTARIO – ST. LAWRENCE RIVER STUDY BOARD**

**Covering the period  
24 September 2004 through 24 March 2005**



**Buffalo, New York  
Ottawa, Ontario**

# INTERNATIONAL LAKE ONTARIO-ST. LAWRENCE RIVER STUDY BOARD

Buffalo, New York  
Ottawa, Ontario  
24 March 2005

Commissioners:

The International Lake Ontario-St. Lawrence River Study Board submits herein its ninth Semi-annual Progress Report, covering activities from 24 September 2004 to 24 March 2005.

## 1. SUMMARY

During the reporting period, significant activities were undertaken by the Study Team toward finalizing Performance Indicators, Criteria and options for regulation plans. The Plan Formulation and Evaluation Group (PFEG) and the Public Interest Advisory Group (PIAG) worked together to organize a series of "Circle C" meetings which targeted specific locations and individuals for in-depth discussions regarding plan development. The Board also continued its dialogue with the International St. Lawrence River Board of Control regarding transition and institutional issues.

The Technical Working Groups (TWG) finalized the Performance Indicators (PI) and worked with PFEG to address specific issues arising as their study results are incorporated into the Shared Vision Model (SVM).

The main Board and Study team initiatives and accomplishments that took place in the reporting period are summarized below, with more detail provided under Section 2:

- On October 19-20, a workshop was held in Ottawa, Ontario to review several plan techniques that could be considered.
- Between November 18 and January 13, five conference calls were conducted with Study Board members designated as "Captains" addressing specific Guidelines that will be used during plan evaluation, developing corresponding position papers.
- An institutional issues workshop was held in Amherst, New York on November 30 – December 1 with the International St. Lawrence River Board of Control to discuss related issues and transitional topics.
- Five "Circle C" meetings targeting specific geographic locations and individuals for in-depth discussions regarding plan development were arranged by PFEG and PIAG.
- A Study-wide workshop was held in Rochester on January 26-27 to practice the decision-making process of selecting plan options.
- Between February 10 and March 10, five conference calls were conducted with Study Board members designated once again as "Captains" addressing

specific issues regarding TWG products and evaluations. An additional call was conducted on March 17 regarding the final “Board Room” developed by PFEG.

- The PFEG also concentrated on formulating new alternative regulation plans and held a week-long plan formulation workshop in Burlington on February 28 through March 4 with selected Study participants.
- The Board assisted the Commission in initiating a limited independent review (Peer Review) of specific TWG models, investigations and results.
- A Board/ PFEG workshop was held in Montreal on March 23-24, to review and screen plan options and finalize the decision-making process.
- Work on the final Study Report was begun.

## 2. BOARD ACTIVITIES

During the reporting period, the Study made a successful transition from TWG data gathering and investigations to plan option development and evaluation. The “Board Room” was introduced by the PFEG as an internet-based location for all pertinent information regarding plan options and the material that could be used for their evaluation. The role of PFEG greatly expanded during the period. In preparation for providing the set of final options for the Board to consider in April, the group sponsored three workshops, in October, January and March, to prepare the Board for the decision-making process they will use in their evaluations. Also to prepare for this activity, the Board conducted a series of conference calls between workshops. The first set was used to clearly define the guidelines that the Board will use to assess plans. Position papers were prepared by Study Board “Captains” on each of the guidelines and related topics. The second set was to provide clarification regarding performance indicators and the tools, e.g., the Flood & Erosion Prediction System (FEPS) and Integrated Ecological Response Model (IERM), being used by the PFEG in the SVM.

In order to assure that public input helped guide the development of plan options, the Board met and shared ideas with individuals at PFEG/ PIAG sponsored “Circle C” workshops. The small workshops were held with those people having been most active in corresponding with the Board throughout the Study at locations suitable to their attendance. Many of the issues raised led to further investigations to eliminate perceived shortfalls of the Study. The plans considered were based on approaches discussed and/ or used previously such as modified 1998, modified Pre-project, and Interest Satisfaction, as well as, new techniques from Cornell University and others.

During the period, the Study Board held a workshop with the Control Board to discuss institutional and related issues, as well as, the transition of Study results and operational models to that Board. Much of the discussion during the workshop addressed issues raised in the January 2002 Report by Clinton Edmunds and Associates, Limited. A report regarding the discussion during the workshop has been provided to the Commission. Topics such as information

transfer, mitigation and adaptive management were also discussed and further discussion is warranted. Control Board members also attended the January PFEG workshop.

With the collaboration of and input from the Study team, a limited independent Peer Review was initiated to be undertaken by the National Research Council and Royal Society of Canada under the auspices of the Commission. The review is of the procedures used during the Study to investigate species at risk and wetland impacts, covering both the Lake and the St. Lawrence River, and of the FEPS, IERM and SVM. The review is expected to be completed in July 2005 with a final report provided in September 2005.

Meetings with government and non-government agencies have begun with the goal of both providing information and also establishing a nexus for future partnerships for information sharing. Study Board members and associates presented Study results at the State of the Lakes Ecology Conference (SOLEC) on October 7 in Toronto. Future meetings are scheduled with NGOs and elective officials throughout May and June.

The Study General Managers continued to provide support and advice; to provide liaison with the Commission advisors and all Study team members; and to manage and monitor the Study budgets, and manage the day-to-day activities of the U.S. and Canadian Secretariats. Both the U.S. and Canadian budgets were managed according to Board plans and decisions and were kept within annual allocations from the Commission. Budgetary and notional work plans have been put in place for the final year (Year-5) of the Study.

Preparations have begun regarding the Study's final set of public meetings which will take place during June and July. A communications plan for the meetings has been finalized, with the Board presenting Study results at the PIAG-sponsored meetings. TWG experts will also be on hand to answer specific questions.

Work on the final Study report has begun with the first draft scheduled for completion in June 2005. The final will be provided to the Commission in October 2005.

### 3. PUBLIC INTEREST ADVISORY GROUP ACTIVITIES

During the reporting period the PIAG participated in the PFEG workshops held in October in Ottawa and in January in Rochester, New York. The PIAG Chairs participated in the Workshop held in Montreal in late March.

During this period, the PIAG met with the International St. Lawrence Board of Control's (ISLRBC) communication team to discuss the future and work towards

aiding that Board with its public communications processes. Meetings will continue to develop the transition from the Study to the Control Board.

The PIAG partnered with the PFEG to arrange stakeholder meetings in Montreal, Syracuse, Brockville, Akwesasne and Burlington to get feedback on plan formulation progress and to get their input into possible regulation plans prior to the March 2005 PFEG/Study Board Workshop. The stakeholders who were invited came from some of the organizations that attended the summer meetings.

The PIAG reviewed its communication plan for the final year of the Study. Based on the input received during last summer's public meetings, small revisions were made to the plan to improve it.

The PIAG arranged for an evening mini-conference in Greece, New York with the Coastal TWG to discuss the findings of this group in more detail with riparian associations. Tradeoffs that will be required were discussed at this conference. The year 5 U.S. budget allows for possible similar mini-conferences for the Environmental TWG and Recreational Boating TWG.

During this period, PIAG members continued to give presentations to interested small groups to broaden the knowledge of the Study.

Lastly, during this period the PIAG and its communication team met with representatives of the Commission's communication team to review the PIAG Year 5 communication plan with the thought that their experience might enlighten our proposed plan of action and add some improvements. After this meeting, the results were that the PIAG was doing as much as it could to accomplish the goal of ensuring effective communication between the Study and the affected publics.

#### 4. TECHNICAL WORK GROUP ACTIVITIES

The Technical Working Groups continued to provide the Study Board the support and advice relating to appropriate studies, research and findings. In turn, as in past years, the Board provided the TWGs the necessary outside support in the delivery of the actual studies and research. Outside support was provided either by consultants or experts from government agencies.

The TWGs worked closely with the Board, PIAG, and the PFEG in interpreting results and findings, in the integration of the findings into the development of proposed Criteria and Performance Indicators, and in addressing concerns stemming from their findings. They also verified results within the SVM.

Below are summaries of the activities of the TWGs, which took place during the reporting period.

#### 4.1 Coastal TWG

The Coastal TWG worked closely with PFEG to provide and verify input for the SVM. A simplified module of the flood and erosion prediction system (FEPS) for Lake Ontario and the upper part of the St. Lawrence River has been prepared for incorporation into the SVM. The PI for both the lake and the entire upper and lower river have been finalized, and incorporated into the SVM and verification of their performance is underway.

Summaries of all performance indicators and contextual narratives have been prepared and submitted. Revisions to these documents are now underway.

A public forum on the Lake Ontario flooding and erosion evaluation methods used by the TWG, and the preliminary results of the evaluation, was held in Greece, NY in January.

#### 4.2 Environmental TWG

The focus of the group during the reporting period was to finalize model development and key PIs, to prepare final reports that synthesize and document the completed studies, and to disseminate the work through peer reviewed outlets. The only remaining fieldwork to be incorporated involves fish studies in the Akwesasne area.

All ETWG documentation is posted on its web page [www.eng.buffalo.edu/glp/IJC](http://www.eng.buffalo.edu/glp/IJC). This provides access to documents, maintains communication between ETWG members, and provides information on meetings. This site is designed primarily for internal use of the ETWG members but access can be provided to others through Joe Atkinson, the U.S. ETWG Co-Lead.

At an ETWG workshop on September 27 in Montreal, 32 PIs were aggregated (from over 200 different PI metrics in the Integrated Ecological Response Model (IERM)) to simplify the presentation of the relative impact of alternative plans on the ecosystem. The PIs selected included wetlands quantity and quality, fish, mammals, birds, and species at risk. Decisions were also made on how to develop PIs for the region just upstream of the Moses-Saunders dam, where no specific studies have been conducted.

Version 3.0 of the IERM was issued on January 10 and served as the basis for discussions at a joint Nature Conservancy/ ETWG meeting on January 18/19 in Rochester, NY to determine key PIs and describe their certainty, significance, and sensitivity with respect to water levels and flows. Since this meeting, in preparation for the final April 2005 Study Board decision workshop, the ETWG group has further refined the metrics for key PIs, has completed all the documentation of key PIs, has developed plan formulation criteria, has developed a guidance manual for interpreting the IERM in terms of the PI results,

and has assisted in evaluating existing regulation plans and in developing a plan that minimizes adverse environmental effects.

Much of the ETWG studies and findings have been peer reviewed. Overviews of some of the studies are being published in a special issue of the publication "Environmental Monitoring and Assessment". The Lower St. Lawrence researchers presented their results at the 5<sup>th</sup> International Symposium on Eco-hydraulics in Madrid in September 2004. These presentations will be published in Symposium proceedings. The group is also chairing a session at the International Association for Great Lakes Research (IAGLR) conference in May 2005, which will focus on the organization and results of the LOSL study as a whole.

The IERM can be downloaded by accessing the URL [www.limno.com/ierm/](http://www.limno.com/ierm/). Information for this download can be found on the ETWG web page.

#### 4.3 Recreational Boating/Tourism TWG

The TWG is preparing a final report that summarizes all of the work sponsored by the group over the study period. A draft of this report was sent to TWG members for their review. A meeting of the group in January 2005 focused on review of the document which will be finalized by the end of March.

The TWG worked with PFEG to revise its contextual narrative and description of performance indicators. The TWG is also expected to review and approve the use of its data in the SVM.

A survey of recreational boating impacts specific to the area below the Moses-Saunders Power Dam was implemented in the reporting period. Members of the St. Regis Mohawk Tribe were the primary recipients of the survey. A brief survey report has been prepared.

#### 4.4 Commercial Navigation TWG

The TWG had three major activities during the reporting period: reviewing and finalizing the contractor's report on the Economic Impact Model, letting a contract to modify the model to run 101 years of water levels simultaneously as well as developing cost curves that would be incorporated into the SVM, and taking part in various Board meetings, TWG meetings and technical workshops.

The TWG finalized the Economic Impact model from the contractor on the December 16<sup>th</sup>. The model calculated the effects of regulation plans on the cost of shipping using vessel traffic data from 1995 to 1999.



The TWG Final Report is nearing completion. It will include the vessel traffic database, voyage profiles, the logic of the simulation in calculating transit times, the economic components used to convert transit times to dollars, sample model outputs for any 5 year period by geographical area, by operational outputs, by costs, a sensitivity analysis and analysis of regulation plans in relation to planning objectives and performance metrics.

The operational and cost data developed when running various plans for 101 years of quarter-monthly data were identified as the basis for developing cost curves that would be plan independent and could be placed into the SVM. A contract with the consultant was made to develop this input, as well as to ensure consistency between the SVM and the Impact Evaluation Model for Commercial Navigation, and to provide information based on metrics and costs that can be used to rank various plans. A meeting with the TWG, the consultant and PFEG was held in Massena New York on November 18-19 to update the TWG on the progress of integrating the cost curves into the SVM.

Some preliminary work was also done to develop a methodology for the ranking of plans given the outputs from the various simulations.

#### 4.5 Hydroelectric Power Generation TWG

During the reporting period, the TWG continued to define measures for PI for input into the SVM. It also continued to refine the hydropower evaluation model developed by Ontario Power Generation for consideration by the PFEG. The TWG participated in several conference calls with PFEG and its economic advisors regarding the work by the consultant Synapse on development of the electricity price forecasts for the St. Lawrence generating facilities and contributed to discussions at PFEG workshops. The TWG contextual narratives were finalized.

#### 4.6 Water Uses TWG

At the request of the TWG, the city of Montreal provided new data concerning the head losses in their intake structures. Calculations were performed to refine the critical levels determined previously. Critical review of the report produced by CDM (GINNA) was also performed during this period.

The TWG participated in the elaboration of the strategies for presenting the information contained in the SVM to the board members, providing an external view of the decision making process.

Comments during the revision of the "Boardroom" interface, following recommendations from the PFEG verifications, were performed to data and in the integration into the SVM.



Support was given to PIAG by providing a participant from the TWG to most consultation sites.

Representatives of the TWG met with and gave a presentation to Montreal Metropolitan Community administrators, on the whole structure and mandates of the Study, and particularly on the content of the “Boardroom”.

#### 4.7 Hydrologic and Hydraulic (H&H) Modeling TWG

Activities for the H & H TWG were completed for most of the work plan. Projects initiated in the first three years of H & H were finalized. Most of the remaining planned work is targeted to finish by the end of March 2005 and some cleaning up of data files, writing Meta data and related activities into the next couple of months.

During this reporting period work was completed for the following projects:

Stochastic flow generation – This major component of generating net basin supplies was finalized earlier this year. In view of some inconsistencies in the data set specifically for the Ottawa River sub-section, a contract was made with Dr. Oli Sveinsson to revise some of the procedures he had implemented in his model. The Stochastic Analysis Modelling and Simulation (SAMS) suite of models were completed and a new series of data set made available to other TWGs.

Net Basin Supplies - Flow routing of the NBS was carried out in Environment Canada's Cornwall office. Data for 50,000 years of flow sequences were employed and information for the net total supplies from Lake Erie and net basin supplies into Lake Ontario were provided to PFEG.

Temperature Modeling - A contract with Dr. Robert Chu of Aqualinks and Ohio State University was completed for the work on temperature modelling of the selected sections of Lake Ontario. 50-years of temperature series in three dimensional aspects of the lake regime was generated and passed on to the Environmental TWG.

Hydrodynamic Temperature Modeling - The fisheries work group of the Environmental TWG requested temperature series for the Bay of Quinte region. A hydrodynamic-temperature linked model was completed by the Burlington office of Environment Canada. The data and temperature series were finalized and forwarded to Dr. K. Minns and Susan Doka of DFO. A subsequent request to simulate stochastic temperature series similar to the flow generation was made during this reporting period. This work is underway and likely to be completed over the next few months.

Local Inflow Forecasts - Work was completed on modelling of the local inflows using Sacramento Soil Moisture Accounting Model, the Snow-17 model, RES-J reservoir operations model and other relevant routing tools for the U.S. watersheds. The basins being studied are – Racquette, Oswegatchie, Grass, Salmon and Saint Regis.

#### 4.8 Information Management

The main focus of the Information Management TWG during the reporting period was to implement key components of the Study's integrated information management strategy. These components include design of a comprehensive information management system, development of bilingual metadata listings of study data and reports, initial development of web-based information discovery tools and improvement to Internet-based geographic information systems (GIS).

Information Management System - TWG has developed an integrated information management system that includes access to study documents, reference materials, metadata records, project results and other study information assets. A search functionality is provided to allow for quick and easy access to key documents by study participants and the public. This system will increasingly become more functional over the next three months as more metadata and information assets are loaded.

Database Management - The Great Lakes Commission, Environment Canada - Ontario Region, Ontario Ministry of Natural Resources, and Environment Canada – Quebec Region have been providing FTP support to facilitate data sharing within the study. The information that is being held on the FTP site will be migrated into the Information Management System to better catalogue study information holdings for discovery and retrieval.

Metadata Compilation and Posting - The IM TWG has developed bilingual input templates to compile metadata for study documents and other study information assets. Metadata are records of the characteristics of information resources, including their topic, originator, abstract, location, timeframe, quality, use limitations, distributor and many more essential factors. Minor improvements are expected over the coming months. Currently, document metadata is being compiled and entered into the application for discovery and retrieval. The metadata collected will be made available to the public in both French and English.

Distributed Web Mapping Application - A distributed web mapping application is currently being enhanced to integrate data from the Province of Ontario – Land Information Office (LIO), serving data for Ontario, and Environment Canada - Quebec Region, serving data for the Quebec and the Great Lakes Commission, serving data for New York State. The application is currently built on the

University of Minnesota's Mapserver. The Quebec node of the IM TWG has already developed a web mapping service.

Shared Vision Model Linkage - The IM TWG has been developing interfaces between the information management system and web mapping tools and the SVM. These linkages should provide easy on-line access to documentation and model results that are the basis of key study findings. These linkages are being designed in close coordination with the PFEG.

#### 4.9 Plan Formulation and Evaluation TWG

##### The Shared Vision Model

The Plan Formulation and Evaluation Group (PFEG) worked on updates and improvements to SVM in preparation for the Study-Wide Practice Decision Workshops held October 18-20 in Ottawa and January 26-27 in Rochester, NY and updated the model for the Study Board decision workshops on March 23-24 in Montreal and April 6-8 in Toronto.

All draft PI have been modelled in the SVM. A timeline was established with the TWGs to provide all final PIs by no later than March 1<sup>st</sup>. Successful links have been made between the Stella portion of the SVM and the FEPS and the Downstream Shore Protection Model from the Coastal TWG and with the Integrated Ecological Response Model (IERM) from the Environmental TWG such that all of these models are now linked as part of the SVM. Results of the SVM are reported in an excel file called "The Board Room". The Study Board is using the Board Room in its decision process. Each of the TWGs are now working toward "Stamps of Approval" of all of the performance indicators within the SVM. This means they must verify that the SVM is accurately representing the results of their individual TWG models and studies. Portions of the draft stochastic time series and the climate change time series have been added to the SVM. Plans can now be evaluated under the historic time series, four different stochastic time series, including a wet century, a dry century and two that are similar to the historic and under four climate change scenarios including a warm/wet, a warm/dry, a not so warm/wet and a not so warm/dry.

##### Plan Formulation

PFEG members are continuing the process of plan formulation. At the January workshop they presented 10 plans that were based on the four strategies including a quasi-optimization or benefits approach, tweaking plan 1998, modifying the pre-project plan, and the development of interest specific or fencepost plans. These various plans were further refined and worked-on at a week long plan formulation workshop Feb 28-March 4 in Burlington. This was the first opportunity that PFEG had to work with all of the performance indicators and revised criteria in plan formulation. New plans were evaluated in the SVM and

results reported in the Board Room allowing the Study Board the opportunity to review results and rank plans prior to the March workshop.

### Practice Decision Workshops

PFEG continues the iterative process of working through practice decisions with the Study Board. On January 26-27, PFEG hosted the third and final Study-Wide practice decision workshop in Rochester, NY. This was the most “real” of the practice workshops to date and was the last opportunity for study participants to have input to the Study Board’s decision process. This two-day workshop made it apparent just how tight the timelines are and helped to clearly identify the path forward and ensured that everyone understood the ramifications of any slippage, which basically would mean that any missing information or data would not be considered in the decision process.

The next steps in the study process were the Study Board workshop on March 23-24 in Montreal and the April 6-7 in Toronto to choose a set of options to take to the public in a series of public meetings in the summer of 2005. In preparation for these workshops, Study Board members carried out two homework assignments. The first was to articulate as clearly as possible the decision factors they will use in the evaluation process. The second assignment was to work through their own ranking process prior to the workshop. For this to happen, PFEG committed to having new plans developed and evaluated within the SVM and an updated Board Room available by March 17<sup>th</sup>. The Board presented the results of their ranking at the start of the March workshop. These results will be provided to the Commission in April.

### Economics Advisory Committee

The economic experts completed a final report on a number of outstanding issues in the study and provided their advice on how to deal with these issues. PFEG is in the process of preparing a response to these findings to inform the Study Board of how each issue is being addressed within the Study.

### Contextual Narratives

Each of the TWGs have prepared initial draft contextual narratives. These have been reviewed by the Economics Advisory Committee and comments have been provided back to the TWGs for improvements. Based on recommendations from the Economics Advisory Committee, the scope of the contextual narratives has been broadened to include information on the assumptions and limitations of the performance indicators and the degree to which they are fungible, a qualitative assessment of secondary impacts, implications of adaptive behaviours by the interest, an assessment and reporting of required sensitivity analyses and a description of the review process.

## Other Activities

**Guideline Conference Calls** - PFEG worked with the Study Board in addressing each of their Study Guidelines and providing clarification on the meaning of each guideline and how the Study Board will use them in their decision making process. Study Board members were assigned as “Captains” of each guideline and asked to prepare a discussion paper prior to a series of biweekly Study Board conference calls. A final set of guidelines was adopted by the Study Board at their January 25<sup>th</sup> Board meeting.

**Circle of Influence Workshops** - PFEG worked with the Public Interest Advisory Group to hold a series of workshops with targeted individuals who have demonstrated a particular interest in the study and who are viewed as trusted representatives of their constituency. Meetings were held in Syracuse, Montreal, Brockville, and Burlington. These meetings provided an effective means for an open dialogue between the interests and study personnel. Participants were encouraged to articulate as precisely as possible the basis upon which they would support plans. PFEG has used this dialogue to provide improvements to the Board Room to address the specific requests of various regions and interests. PFEG and PIAG will continue the dialogue with these individuals.

**The Nature Conservancy Workshop** - PFEG worked with David Klein and Brian Richter of The Nature Conservancy to design and run a two-day plan ranking workshop in Rochester, NY in January. The workshop brought members of the Environmental TWG together with biologists from The Nature Conservancy. Together, they challenged both the research results and the IERM as the basis for decision making. That led to increased confidence in the IERM because the model was proven to address the concerns raised, and it led to the elimination of some PI because they did not meet the Study Board’s “sensitive, certain and significant” benchmarks. Workshop participants then ranked three plans that had achieved good, but not dominate scores in nearly three dozen environmental PI. The factors they used were summarized and will be used to help the Board make tradeoffs among non-fungible environmental outcomes when ranking plans.

**Akwesasne Workshop** - PFEG met with members of the Akwesasne including Henry Lickers and Jim Snyder who are members of the Study Board. This meeting allowed the Akwesasne to learn more about the study process and provide information to the PFEG on their specific concerns.

**Peer Review** - PFEG is participating in a study-wide peer review being led through the IJC. In support of this initiative PFEG has shared written documentation on the development of the SVM.

## 5. COMMUNICATIONS

The communications team:

- Summarized the questions and action items from the summer 2004 PIAG meetings,
- Assisted the PIAG in developing a communications strategy and budget for the final year of the Study,
- Assisted the PIAG in coordinating a coastal mini-conference,
- Organized a series of five PFEG Workshops with key stakeholders and experts in Canada, the U.S. and the Mohawk Territory,
- Updated the U.S. Study database to reflect changes in elected officials,
- Began to contact key elected and some departmental officials in Canada to discuss briefing arrangements related to the Study's recommendations,
- Performed an audit of outreach effectiveness and needs among Study participants and stakeholder groups.

A review of the statistics for the Study website indicated:

- More than 38,000 unique visitors to the site from February 2003 until February 2005,
- More than 50 unique visitors on average every day with as many as 150 visitors on some days,
- Among the most popular pages were the main page and the page for information about technical work groups with 40,000 and 3,600 visitors respectively in that time period.

In the U.S., Study brochures were distributed to the libraries and Chamber of Commerce offices in counties along the shoreline of Lake Ontario and the St. Lawrence River and through partnership with the U. S. Coast Guard Auxiliary Study brochures were distributed again this year at boat shows throughout New York State.

## 6. BUDGETS

The U.S. and Canadian year-five budgets were approved on January 25 in Rochester, New York. For each, the largest amounts are for PFEG and PIAG in preparation of the final plan options and presenting these plans during the summer to the public. The Board-Secretariat budget will cover Board travel and participation in the PFEG and PIAG-sponsored activities and development of the final report. TWG amounts are expected to be small and provided on an "as requested" basis to finalize their reports, assist the Board and PFEG, and participate at the summer public meetings as required.

The tables below show the approved year-5 amounts for the U.S. and Canada.

### U.S. Year 5 Funding

	<b>Approved</b> (25 Jan 2005)	<b>Committed</b>	<b>Spent</b> (as of 24 March 2005)
Commission	50,000	50,000	25,000 <sup>(1)</sup>
Study – Secretariat	250,000 <sup>(2)</sup>	142,000	126,258
PIAG	210,000 <sup>(3)</sup>	53,883	18,110
Environment	82,000 <sup>(4&amp;5)</sup>	11,689	639
Coastal		23,885	11,150
Rec. Boating		39,772	27,663
Hydrologic & Hydraulic		0	0
Commercial Navigation		20,771	9,031
Water Uses		0	0
Power		0	0
Info. Management	39,000	0	0
Plan Form. & Evaluation	400,000	223,000	24,118 <sup>(1)</sup>
Others, reserve, unexpected	60,000 <sup>(6)</sup>	0	0
<b>Grand Total Budget</b>	<b>1,091,000</b>	<b>565,000</b>	<b>241,969</b>

**Notes:**

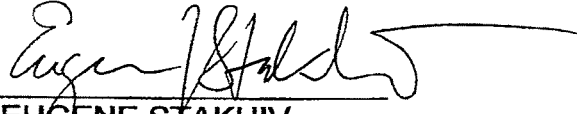
1. The spent amounts for the Commission and PFEG are estimates.
2. The approved amount includes the cost of Board travel and expenses and development of the final Study Report. The Study office is scheduled to close in Dec. 2005.
3. The approved amount includes expenses for the summer meetings, communications plan and development of a final report. The Public Affairs Specialist and Assistant positions are scheduled to terminate in Dec. 2005.
4. The H&H budget is included in the PFEG budget.
5. The amount approved for TWGs is committed on an as required basis.
6. The amount approved for "Other" is reserved for independent review and other unexpected activities.



## Canadian Year 5 Funding

	<b>Approved</b> (Jan 25 2005)	<b>Comments</b> (From Jan 25, 2005)
Environment	120,000	\$49 K allowance to include work/support by Jean Morin
Recreational Boating		
Coastal Processes		
Commercial Navigation		The group requested (and it was agreed) to do the essential consultant work (\$12K) in Y-4; only travel allowance of \$5K in Y-5
Hydroelectric Power		
Water Uses		
Hydrology & Hydraulic		The cost of Y-5 work by Yin Fan is being covered under the PFEG budget; therefore the total for H&H will be limited to \$45K
Public Involvement	415,000	The detailed budget will be prepared and submitted to the Board (to be initiated by Greg)
Plan Formulation & Evaluation	260,000	Board approved \$260K
Information Management	116,000	Approved \$116K
Study Management (IJC)	197,000	
Secretariat	320,000	Board approved \$320K
Others, reserve, unexpected	0	
Independent Review	50,000	Board approved \$50K from Canadian Y-5 budget; remainder of work to be covered from US budget Y-5
Y-6 IJC Transitional Support (2006-2007) : -Commission Report, printing, translation, publicity; - Public consultations/hearings	120,000	
<b>Grand Total</b>	<b>1,598,000</b>	
<b>Total Available from TB</b>	<b>1,489,000</b>	Note: Year- 5 over budgeted by \$108,000
<b>Notes:</b> 1. The ComNav group requested subsequently to proceed with essential work in the current year (Y-4) and limit the total consultant activity to \$12K for the remainder of the Study; Max of \$5K will be retained in Y-5 for travel expenses of tech support during the period leading to and including the 2005 Public meetings. 2. Actual Y-5 \$ amounts for the remaining TWGs will be considered/decided at a later date		

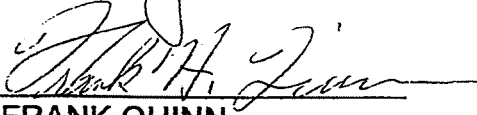
Respectfully submitted,



EUGENE STAKHIV  
U.S. Co-Director



DOUGLAS CUTHBERT  
Canadian Co-Director



FRANK QUINN



ANDRE CARPENTIER



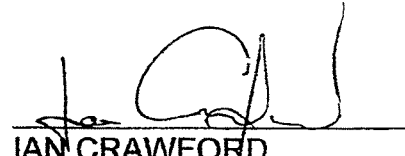
PETE LOUCKS



LYNN CLEARY



FRANK SCIREMAMMANO



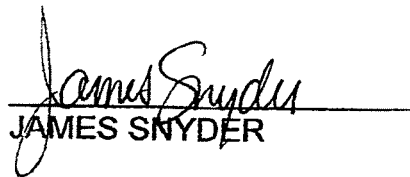
IAN CRAWFORD



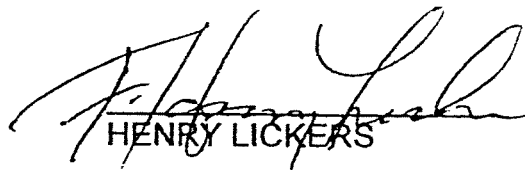
SANDRA LeBARRON



STEVEN RENZETTI



JAMES SNYDER



HENRY LICKERS



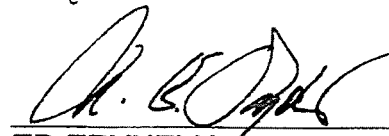
DANIEL BARLETTA



MARCEL LUSSIER



ANTHONY EBERHARDT  
U.S. General Manager



ED ERYUZLU  
Canadian General Manager

## APPENDIX #1

### Attendance at Board meetings and Conference Calls

19-20 October 2004 – Ottawa, Ontario

Eugene Stakhiv  
Frank Quinn  
Sandra LeBarron  
Dan Barletta  
Frank Sciremammano  
Jim Snyder  
Pete Loucks  
Tony Eberhardt

Doug Cuthbert  
Steven Renzetti  
Andre Carpentier  
Marcel Lussier  
Lynn Cleary  
Ian Crawford  
Ed Eryuzlu

#### Guideline Conference Calls

18 November 2004

Eugene Stakhiv, Captain  
Frank Quinn  
Sandra LeBarron  
Dan Barletta  
Frank Sciremammano  
Jim Snyder  
Tony Eberhardt

Steven Renzetti, Captain  
Ian Crawford, Captain  
Andre Carpentier  
Marcel Lussier  
Lynn Cleary  
Doug Cuthbert  
Ed Eryuzlu

2 December 2004

Sandra LeBarron, Captain  
Dan Barletta, Captain  
Frank Sciremammano  
Frank Quinn  
Tony Eberhardt

Doug Cuthbert, Captain  
Ian Crawford  
Andre Carpentier  
Steven Renzetti  
Elaine Kennedy (for Marcel Lussier)  
Ed Eryuzlu

16 December 2004

Frank Sciremammano, Captain  
Frank Quinn, Captain  
Eugene Stakhiv  
Dan Barletta  
Jim Snyder  
Tony Eberhardt

Lynn Cleary, Captain  
Doug Cuthbert  
Andre Carpentier  
Steven Renzetti  
Elaine Kennedy (for Marcel Lussier)  
Ed Eryuzlu

5 January 2005

Eugene Stakhiv  
Frank Quinn  
Sandra LeBarron  
Dan Barletta  
Frank Sciremammano  
Pete Loucks  
Tony Eberhardt

Lynn Cleary, Captain  
Doug Cuthbert, Captain  
Andre Carpentier  
Ian Crawford  
Steven Renzetti  
Ed Eryuzlu

13 January 2005

Eugene Stakhiv  
Frank Quinn  
Sandra LeBarron  
Dan Barletta  
Pete Loucks  
Tony Eberhardt

Doug Cuthbert  
Lynn Cleary  
Andre Carpentier  
Ian Crawford  
Elaine Kennedy (for Marcel Lussier)  
Ed Eryuzlu

25 January 2005 – Rochester, New York

Eugene Stakhiv  
Frank Quinn  
Sandra LeBarron  
Dan Barletta  
Frank Sciremammano  
Pete Loucks  
Tony Eberhardt

Doug Cuthbert  
Steven Renzetti  
Andre Carpentier  
Henry Lickers  
Lynn Cleary  
Ian Crawford  
Elaine Kennedy (for Marcel Lussier)  
Ed Eryuzlu

Issues Conference Calls

10 February 2005

Frank Sciremammano, Captain  
Eugene Stakhiv  
Frank Quinn  
Al Schiavone (for Sandra LeBarron)  
Dan Barletta  
Tony Eberhardt

Steven Renzetti, Captain  
Doug Cuthbert  
Ian Crawford  
Andre Carpentier  
Lynn Cleary  
Elaine Kennedy (for Marcel Lussier)  
Henry Lickers  
Ed Eryuzlu

17 February 2005

Eugene Stakhiv, Captain  
Sandra LeBarron  
Dan Barletta  
Frank Sciremammano  
Tony Eberhardt

Ian Crawford, Captain  
Lynn Cleary  
Andre Carpentier  
Steven Renzetti  
Ed Eryuzlu

23 February 2005

Eugene Stakhiv  
Al Schiavone (for Sandra LeBarron)  
Tony Eberhardt

Steven Renzetti  
Elaine Kennedy (for Marcel Lussier)  
Ed Eryuzlu

3 March 2005

Sandra LeBarron, Captain  
Dan Barletta, Captain  
Eugene Stakhiv  
Frank Quinn  
Jim Snyder  
Tony Eberhardt

Steven Renzetti  
Elaine Kennedy (for Marcel Lussier)  
Ian Crawford  
Andre Carpentier  
Lynn Cleary  
Ed Eryuzlu

10 March 2005

Sandra LeBarron  
Dan Barletta  
Pete Loucks  
Tony Eberhardt

Steven Renzetti, Captain  
Lynn Cleary, Captain  
Elaine Kennedy (for Marcel Lussier)  
Ian Crawford  
Andre Carpentier  
Ed Eryuzlu

17 March 2005

Dan Barletta  
Frank Quinn

Doug Cuthbert  
Lynn Cleary  
Andre Carpentier  
Ian Crawford  
Elaine Kennedy (for Marcel Lussier)  
Ed Eryuzlu