

## **INTERNATIONAL LAKE SUPERIOR BOARD OF CONTROL**

### **Minutes of the March 4, 2003 meeting**

The International Lake Superior Board of Control met on March 4, 2003 in a conference room at the U.S. Army Corps of Engineers, Chicago, Illinois. COL Roncoli convened the meeting at 1:30 p.m. Those in attendance were:

#### United States

COL M. Roncoli

Mr. J. Kangas

Mr. D. Schweiger (Alt.)

Mr. C. Woodruff  
Mr. D. Sawruk  
Mr. G. Christie  
Ms. L. Bourget  
Dr. R. Manam

#### Board Members

#### Secretaries

#### Regulation Representatives

#### Associates

#### Canada

Mr. C. McLeod

Mr. D. Fay

Mr. D. Fay

Mr. A. McPhee  
Mr. R. Caldwell  
Mr. T. McAuley

### **Item 1. Approval of Agenda**

The draft agenda was adopted as issued (Enclosure 1).

### **Item 2. Update on Long Lac and Ogoki Diversions**

Mr. Fay reported that Ontario Power Generation provided the Board with an update on the operations of the Long Lac and Ogoki Diversions. Mr. Caldwell reported that the Ogoki Diversion into Lake Nipigon (which flows into Lake Superior) averaged 88 cms (3,100 cfs) during September 2002-February 2003. The Long Lac Diversion averaged 27 cms (950 cfs) for the same period. The total diversion was reported to be 83 % of average for the reporting period.

### **Item 3. Update on Current Conditions and Regulation Strategy**

Mr. Schweiger provided the Board with the following update on current conditions and outlook for Lakes Superior and Michigan-Huron and distributed graphics of basin precipitation, levels, net basin supplies, and forecasts.

- Precipitation over Lake Superior's basin was below average during the reporting period. Lake Superior water levels were 9 to 22 cm (4 and 9 inches) below their monthly averages during this reporting period. The lake levels were above chart datum for most of the navigation season, but declined below datum early in January. Currently, Lake Superior's level is 23 cm (9 in.) below average and 6 cm (2 in.) lower than last year.
- Precipitation over Lakes Michigan-Huron basin was well below average during the reporting period. Lakes Michigan-Huron water levels were 31 to 57 cm (12 to 35 in.) below their monthly averages during the reporting period. The lake levels remained above chart datum until mid-November. Currently, the level was about 60 cm (24 in.) below average and 26 cm (10 in.) lower than a year ago.
- Water supplies to Lake Superior were above average in September and October and below average from November through February.
- Water supplies to Lakes Michigan-Huron were below average from September through February
- The Regulation Representatives presented the Board a range of projected levels and flows for the next 6 months. With average supplies, Lakes Superior and Michigan-Huron levels are expected to be 21 cm (8 in.) and 55 cm (22 in.) below their averages respectively, by June. Though it is very likely that Lake Superior will reach chart datum this summer, Lakes Michigan-Huron would need to receive average or higher supplies to reach chart datum.
- Lake Superior outflows were as specified by Regulation Plan 1977-A except for August, September and October during the Compensating Works gate seal replacement. The Compensating Works gates were maintained at a setting equivalent to one one-half gate open for the main rapids, except for the gate seal replacement period when there was a one gate open setting.
- The Board agreed that outflows specified by the regulation plan be continued.

#### **Item 4. Hydropower Plant Status**

Mr. Sawruk reported that there have been problems this winter with frazil ice at the ESEC plant. The Reg Reps informed the Board that the automation of the U. S. Government hydropower plant was completed in February 2003. Automation of Unit 10 is expected to be completed by March 5. The work included the following:

- Replacement of analog meters with digital instrumentation for continuous recording of power generation and plant operating head, and replacement of the existing rotating exciters with solid-state exciters.
- When the new System Control and Data Acquisition (SCADA) system is in place, (expected in mid-March), flow measurements will be made from which new discharge tables will be developed that relate actual water flow with turbine gate openings, power generated and plant head. These measurements are to be performed by Acres Engineering, and confirmed by USACE crews. This work is scheduled for the spring and summer and is expected to resolve the problem of under-reporting of flows through this plant.
- Mr. Mc Phee reported that one of the three units at its Clergue plant had been out of service for 2 days in March. A unit is scheduled to be out of service for maintenance for 9 days in May.

#### **Item 5. Compensating Works Status**

Mr. Schweiger reported that the replacement of the bottom gate seals on the U.S. Compensating Works gates was completed during August-October 2002. One gate at a time was raised to a full-open position to facilitate repairs. Replacement of the bottom gate seals has substantially reduced the leakage under these gates. The side seals were not replaced at this time since it was considered to be cost-prohibitive.

The next major work is not expected until after the next full inspection in 2005, which will include inspections above and below water line, plus a complete survey of the structure.

#### **Item 6. Flow Measurements**

The Reg Reps reported the following schedule for the flow measurements:

- Flow measurements for the summer of 2003 in the Edison Sault Electric Company (ESEC) power canal to verify the accuracy of the flow calculation method implemented by ESEC in the summer of 2001.

- Flow measurements to verify or update the stage-discharge rating relationships at the Compensating Works are planned for the summer of 2003. Mr. Fay noted that this work should be done in the last week of July or in the first two weeks of August to minimize potential impacts to the fisheries.

**Item 7. Peaking and Ponding: (a) Discuss Feedback from Interests, (b) Status of 2-D Hydraulic Model Development, (c) Peaking and Ponding Report**

The Regulation Representatives updated the Board on peaking and ponding operations. as outlined below:

- Subsequent to the Board's Peaking and Ponding report in February 2002, and the Commission's extension of peaking and ponding authority until March 2003, the Reg Reps had only several months of operating experience this year, but the present guidelines governing peaking and ponding operations and the mechanism of disseminating information to the public appear to be working very well. There has been no report of ship delay since the guidelines were put into effect.
- Mr. McPhee and Mr. Sawruk reviewed recommendations submitted to the IJC in a February 19, 2003 joint submission from the hydropower entities. The entities requested extension of the authority for peaking and ponding for multi-year periods. Further, they asked for the elimination of restrictions on ponding
- During the reporting period, ponding operations were suspended for the weekends of December 7-8 and 14-15 while ocean-going vessels were still in the St. Marys River system. This was done as U.S. Slip Gauge levels were expected to be below chart datum in December. All ocean-going vessels had cleared the St. Marys system as of December 18, 2002 and weekend and holiday ponding operations were then permitted again for the remainder of December.
- The Corps distributed monthly notices on expected Lake Superior outflows, and a schedule of flow variations at the hydropower plants including instructions for mariners on who to contact to obtain additional information related to water levels and flows.
- The Board submitted a follow-up report on December 13, 2002 and recommended that the Commission extend the authority for peaking and ponding operations for another year through the winter of 2003-2004.
- The Board will continue to collect data and continue development of a St. Marys River flow model. The Corps committed to completion of the model this year.

- The IJC issued a public notice on January 23, 2003 inviting comment on its proposal to extend the authority for peaking and ponding operations in the St. Marys River until March 20, 2004. It was noted that only Great Lakes Power and Edison Sault Electric had commented (to date) on the proposal.
- Mr. Sawruk requested that the Board review conditions weekly or bi-weekly instead of monthly. The Board agreed to monitor the conditions and also the forecast levels and review its decision on ponding restrictions at mid-month. The Reg Reps will continue to use the current guidelines for ponding impacts on U.S. Slip levels as a decision tool.

### **Item 8. Sea Lamprey Control Presentation and Discussion**

At the request of the Board, Mr. Gavin Christie of Great Lakes Fisheries Commission (GLFC) provided a detailed presentation at this meeting. The presentation included detailed model results, field observations and critical control points for sea lamprey control on the Great Lakes.

The Board noted that in June 2002 the GLFC requested the Board's assistance in carrying out a sea lamprey trapping experiment immediately below the ice spillway at the Great Lakes Power Limited (GLPL) hydropower plant. The experiment was to take place during July and August that would have incurred additional flow in the power canal. But, the experiment did not take place due to GLPL's operational considerations. Mr. Christie noted that GLFC may make a request in the future for potential attractant water for traps, but that pumps may prove adequate for this purpose. He added that the GLPL tailrace is a good spot for trapping due to the relatively high outflows usually present there. They are not likely to ask for controlled flows for lampricide application.

### **Item 9. Communications with the Public and June 2003 Public Meeting**

The Board agreed to conduct its 2003 annual meeting in Sault Ste. Marie, Ontario on Wednesday evening June 25, 2003. The Board continues to issue each month, news releases about Lake Superior regulation, up-to-date level conditions and, changes in gate settings at the Compensating Works. The Board also maintains its home page on the Internet that has links to the IJC home page and other U.S. and Canadian agencies' pages.

### **Item 10. Review of Semi-annual Progress Report**

The Board reviewed and made some changes to the draft Semi-Annual Progress Report. Mr. Kangas will incorporate the changes, update the data and distribute advance copies to the IJC.

### **Item 11. Other Business: (a) Status of Upper Great Lakes Study, (b) Status of Great Lakes-St. Lawrence Seaway Review, (c) Status of Dredging**

(a) The Board provided the IJC with a POS report for the Upper Great Lakes Study in January 2002 and the IJC forwarded it to the Governments. The Board noted that governments have not yet allocated any funding to initiate the Upper Great Lakes study. Mr. McAuley noted that there was a question on the Canadian side as to whether there were enough technical personnel to handle another study, given the International Lake Ontario – St. Lawrence Study and the Great Lakes – St. Lawrence Seaway Review.

(b) Mr. Schweiger reported on the status of Great Lakes-St Lawrence Seaway Review. This was authorized by section 343 of the Water Resources Development Act of 2000. The Corps was authorized by the U.S. Congress to look at possible improvements to the navigation system from Duluth to the lower St. Lawrence River. The Corps completed a Recon Study and submitted it to their Headquarters (HQ) last summer. Though the reconnaissance report was officially approved by HQ on February 13, 2003, HQ has asked for a supplemental report that requires a more extensive baseline environmental, engineering features and economic analysis and public review and comment prior to the start of a feasibility study. This supplemental report is expected to take 2 to 3 years. The Corps has had preliminary discussions with Canada on their partnering with the Corps on any future feasibility study. Transport Canada is currently assessing several strategies to assess future infrastructure requirements.

Mr. Schweiger also reported that the lock replacement project had taken a step backward. The report requires rewriting to address an economics/cost analysis. This new report is called a Limited Evaluation Report.

(c) Mr. Schweiger reported on the completion of 500-foot section of the Vidal Shoals dredging in the St. Marys River. The work was started in June 2001 following approval from the U.S. State Department and coordination with the Canada's Department of Foreign Affairs and International Trade. This dredging project consists of deepening and modifying widths in existing channels in the Upper St. Marys River between Pointe Louise Turn and the South Canal to the navigation locks, upstream of Sault Ste. Marie, Michigan and Ontario. Dredging of a 300-foot wide northern channel area portion was

delayed due to contractor claims. This portion is expected to be completed by summer this year. The project is currently 85% completed.

The Board was also informed of the proposed dredging in the Lower St. Marys River extending from the southern approach of the Soo Locks to the northern end of the Rock Cut on the west side of Neebish Island. The U.S. State Department and Canadian Department of Foreign Affairs and International Trade indicated that they have no objection to the project provided it does not cause any transboundary impact on water levels and flows.

The U.S. environmental assessment process was completed with the signing of a "Finding of No Significant Impact" on September 30, 2002. Proposals for doing this dredging contract were opened January 28, 2003 and the contract was awarded on February 26, 2003. Work is expected to start in July and be completed by early Fall.

The Board was informed of concerns from Environment Canada about the uncertain impacts of the dredging on trans-boundary water levels and the flow distribution around Sugar Island. A 2-dimensional model of the St. Marys River is being developed by the Corps to study this question. Completion of the model analysis is expected by July 2003.

It was noted that there is currently no money allotted for mitigating works.

#### **Item 11. Next meeting and IJC appearance**

The Board agreed to hold its Fall meeting in September 2003. There being no other business, the meeting adjourned at 4:30 p.m.

# **INTERNATIONAL LAKE SUPERIOR BOARD OF CONTROL**

## **BOARD MEETING**

**March 4, 2003, 1330-1600 hours**

**U.S. Army Corps of Engineers, 111 North Canal St., Chicago, Illinois**

### **Agenda**

1. Approval of Agenda
2. Update on Long Lac and Ogoki diversions
3. Update on current conditions and regulation strategy
4. Hydropower plant status
5. Compensating Works status
6. Flow measurements
7. Peaking and Ponding: (a) Discuss feedback from interests, (b) Status of 2-D hydraulic model development, (c) Peaking and Ponding Report
8. Sea Lamprey control presentation and discussion
9. Communications with the public and June 2003 public meeting
10. Review semi-annual progress report
11. Other business: (a) Status of Upper Great Lakes Study,  
(b) Status of Great Lakes-St. Lawrence Seaway Review, (c) Status of dredging
12. Next meeting and IJC appearance

Enclosure 1