

# INTERNATIONAL LAKE SUPERIOR BOARD OF CONTROL

## Minutes of the March 22, 2012 meeting

The International Lake Superior Board of Control met on March 22, 2012 in a meeting room of the Ramada Hotel in Watertown, New York. Colonel Drolet convened the meeting at 8:40 a.m. The attendees were:

### United States

COL J. Drolet, Alt. Member

Mr. J. Kangas

LTC M. Derosier  
Mr. J. Allis, Alt.

Mr. P. Hrodey  
Mr. E. Tauriainen  
Mr. B. Belleau  
Mr. K. Kompoltowicz  
Ms. D. Glance, IJC  
Dr. M. Colosimo, IJC

### Board Members

### Secretaries

### Regulation Representatives

### Associates

### Canada

Mr. D. Fay

Mr. R. Caldwell

Mr. R. Caldwell

Mr. R. Stefano  
Mr. T. McAuley, IJC  
Mr. A. Thompson \*

\* joined for item 9

#### Item 1. Approval of Agenda

The agenda was approved as issued (encl 1).

#### Item 2. Update on Hydrologic Conditions and Regulation

LTC Derosier updated the Board on hydrologic conditions for Lakes Superior, Michigan-Huron, and Erie, and provided slides of recent net basin water supplies, levels (observed and forecasted), and Lakes Superior/Michigan-Huron water balance parameters.

- Water supplies to the Lake Superior basin in the past 6 months were well below average. Evaporation from Lake Superior is estimated to have been about 78% of average the past six months. Lake Superior's surface temperature is above average. Water supplies to the Lakes Michigan-Huron basin in the past six months were near average but displayed considerable variation above and below average. Evaporation from Lakes Michigan-Huron is estimated to be about 66% of average the past six months.
- Lakes Superior and Michigan-Huron levels are well below average, with Lake Superior continuing in its longest period of below-average levels (since April 1998) and Michigan-Huron also continuing its longest period of below-average

levels (since January 1999). Both lake systems are at higher levels than they were a year ago. Lakes Superior and Michigan-Huron were 32 and 29 cm (13 and 11 in.) lower than average, respectively, on March 19.

- Lake Superior outflows were below average from September through March; outflows in March were limited by Criterion (c). Outflows during the reporting period were as specified by Regulation Plan 1977-A, and the gate setting at the Compensating Works remained equivalent to ½ gate open.
- The Board was presented a range of projected levels for the next 6 months, along with slides showing how levels compare to the previous two years. With average supplies, Lakes Superior and Michigan-Huron levels are expected to remain well below average. Lakes Superior is expected to rise above chart datum in early summer; Michigan-Huron levels reached datum in mid-March and are expected to stay above chart datum.
- The 1900-1986 “standardized departure” data as used in Plan 1977-A show that Lake Superior is more than one standard deviation lower than Lakes Michigan-Huron. Plan 1977-A is specifying very low outflows through June.
- Lake Superior’s ice cover was less extensive than average.
- Recent airborne measurements of the Lake Superior basin showed snow water equivalents at about 90% of average on the Canadian portion of the basin and much less than average on the U.S. portion. Most of the snow cover on the Michigan-Huron basin has melted in the recent very warm weather.

### Item 3. Update on Long Lac and Ogoki Diversions

Mr. Caldwell reported that Ontario Power Generation (OPG) provided the Board with an update on the discharges of the Long Lac and Ogoki Diversions. The Ogoki Diversion into Lake Nipigon (which flows into Lake Superior) averaged 23 m<sup>3</sup>/s (800 cfs) during September 2011 - February 2012. The Long Lac Diversion averaged 55 m<sup>3</sup>/s (1,950 cfs) for the same period. The total diversion was reported to be 56% of average for September to February.

Since 1999 a continuous flow of at least 2 m<sup>3</sup>/s (70 cfs) has been maintained during the summer (Victoria Day weekend through Labor Day weekend) from the north outlet of Long Lake (Kenogami Dam). This agreement (i.e., the Aguabason Water Management Plan) between OPG and the local First Nations provides water for environmental enhancement of the Kenogami River, and reduces the amount diverted to Lake Superior. The Ontario Ministry of Natural Resources requires a minimum flow of 0.55 m<sup>3</sup>/s (19 cfs) during the rest of the year and has extended the 2 m<sup>3</sup>/s minimum requirement from Labor Day weekend to the end of October (i.e., Saturday of Victoria Day weekend through Halloween). An average of 0.8 m<sup>3</sup>/s (30 cfs) was spilled from September through February.

#### Item 4. Flow Measurements

Flow measurements were taken in 2010 at each of the hydropower plants. The next set of flow measurements will be in 2015. Flow measurements are planned for the Compensating Works in July 2012.

#### Item 5. Hydropower Plant Maintenance

Cloverland: No significant maintenance items were reported for the reporting period. CNN Rail will be doing repair work to their piers in the Cloverland Canal later this year. There will be no canal lining work by Cloverland this year. A new turbine will be installed later this year on a test basis. If successful, the remaining turbines would be replaced.

US Government: During the past 6 months, units at the Government Plant were taken off-line at various times for about 100 hours to finish timber crib repairs from September through November. Unit 1 was off-line for 13 days to change a draft seal. Cloverland utilized the allocation that the government plant was unable to use during these and other outages.

Brookfield: Routine maintenance was performed during the reporting period at the Brookfield Renewable Power plant. Several short outages were reported for mechanical and transmission issues. Mr. Stefano reported that Brookfield Renewable Power's 3 units would be taken out of service for maintenance, one at a time, during the period from April 30 to the middle of October. This is not expected to affect their ability to pass their monthly water allocation since they still have sufficient capacity..

#### Item 6. Compensating Works

a) Inspections. During the reporting period, routine inspections were conducted with no major items found. The next 5-year detailed inspection of the Compensating Works will take place in 2015.

b) Maintenance activities. Brookfield Renewable Power completed the refurbishment of Gate 1 last summer. Inspection of the completed work was carried out in November. Routine maintenance was carried out during the reporting period in both the U.S. and Canada.

#### Item 7. Peaking and Ponding Update

The Board noted that the levels below the Locks were high enough from the fall to the close of the navigation season in late January such that ponding was not restricted. No vessel delays were reported due to water levels. Lakes Michigan-Huron are at chart datum and expected to rise; therefore, it is not expected that ponding will be restricted during the next six months.

#### Item 8. 2011 Meeting With the Public

The Board discussed plans for its next meeting with the public, which will take place in Sault Ste. Marie, Ontario. It agreed to continue to offer a telephone call-in option for public participation. The Board briefing will be posted to the web page to allow those calling in to follow the presentation. The meeting will be scheduled for the summer, possibly after a new Alternate U.S. Member is appointed. The week of August 20 was identified as a potential timeframe.

#### Item 9. Other Business

a) Update on Upper Lakes Study. Dr. Colosimo provided an update on the Study. The Study Board's final report is to be submitted to the IJC on March 23. A new regulation plan is being recommended by the Study that provides small improvements to most interests. An adaptive management plan is also being recommended, as well as a Great Lakes Water Levels Advisory Board to provide input to all of the Great Lakes Boards of Control. A modification to the existing Criterion (c), used to determine when "preproject" limits on outflows are to be in effect, is also recommended.

b) Lamprey study. Mr. Pete Hrodey briefed the Board on the Great Lakes Fishery Commission (GLFC) sea lamprey study of last summer. The gate settings at the Compensating Works were at an equivalent one-half gate open using Gates 13 to 16 (instead of the usual Gates 7 to 10). This was to facilitate trapping near the south (U.S.) shore of the rapids. At the traps placed in the powerhouse tailraces, the relationship between increased flow and increased daily catch success was not as strong as expected. The Board asked for an analysis that showed the difference between daylight and night catches, instead of a lumped daily catch. There were not enough sea lampreys captured at the Cloverland Plant to complete the planned analysis, therefore no further tests are anticipated at Cloverland. A 3-dimensional model of lamprey behavior near the Brookfield plant is still under development. The GLFC requested that the Board consider a proposal to repeat the 2011 experiment during 2012, focusing on the Brookfield plant.

The GLFC is also requesting to move the Compensating Works gate open setting closer to the southern end again in 2012 and to delay gate calibrations until after nest surveys have been completed (mid-August). The Board urged the Great Lakes Fishery Commission representative at the meeting to provide documentation on its detailed study plans and coordination with other agencies as soon as possible. Board staff is preparing an analysis of what flow increases might be accommodated within the plan-prescribed outflows.

A letter to the IJC will be sent following receipt of a written request from the GLFC.

c) Water use inspections. Mr. Caldwell provided an update on plans to conduct an inspection of the points where water is withdrawn from the St. Marys River above the Compensating Works. This will be done jointly by the Corps of Engineers and Environment Canada and may be scheduled to coincide with the upcoming public meeting.

d) Transboundary issues. Mr. Thompson described the procedures and laws used by the Canadian federal government in considering projects that impact the boundary waters. This was triggered by several recently reported efforts to initiate installation of turbines in the St. Clair River. The Corps of Engineers noted that it would assure its regulatory staff that process permits are aware of the special circumstances surrounding such projects. Dr. Colosimo reported that the IJC is finishing a "Users Guide" for making applications to the IJC for projects that impact water levels. When finished, this will be a useful document for government agencies with regulatory responsibilities to provide to applicants.

Item 10. Review semi-annual progress report

Mr. Kangas led a review of the revised progress report. The Board had several comments and revisions to be incorporated prior to sending the final report to the IJC.

Item 11. Next Meeting and IJC Appearance

The IJC Appearance is scheduled for 8:30 a.m. on April 25. The fall Board meeting will be scheduled in cooperation with the other Great Lakes Control Boards. .

There being no other business, the meeting adjourned at 12:42 pm.

INTERNATIONAL LAKE SUPERIOR BOARD OF CONTROL  
MEETING OF MARCH 22, 2012

Approved Agenda

1. Approval of agenda
2. Update on hydrologic conditions and regulation
3. Update on Long Lac and Ogoki diversions
4. Flow Measurements
5. Hydropower Plant Maintenance
6. Compensating Works
  - a) Inspections
  - b) Maintenance activities
7. Peaking and Ponding Update
8. 2012 Meeting with the Public
9. Other business:
  - a) Update on Upper Lakes Study
  - b) Lamprey study
  - c) Water use inspections
  - d) Transboundary issues
10. Review semi-annual progress report
11. Next meeting and IJC appearance