

INTERNATIONAL LAKE SUPERIOR BOARD OF CONTROL

Minutes of the 30 March 2016 meeting

The International Lake Superior Board of Control met on 30 March 2016 in the United States Army Corps of Engineers – Detroit District office. BG Richard G. Kaiser, United States Chair, convened the meeting at 1:05 p.m. The attendees were:

<u>United States</u>		<u>Canada</u>
	Board Members	
BG Richard G. Kaiser		Mr. J. Gadal
	Secretaries	
Mr. A. Heer		Mr. R. Caldwell
	Regulation Representatives	
LTC M. Sellers		Mr. J. Bruxer
Mr. J. Allis (Alt.)		
	Associates/IJC	
Mr. J. Oyler (phone)		Ms. J. Dickhout (phone)
Mr. C. Sidick		Mr. R. Stefano
Ms. C. Jarema		Mr. G. Walker - IJC
Mr. K. McCune		Marc Hudon
Mr. P. Schmitgal		
Ms. S. Runyon - IJC		
Mr. S. Fowler		
Mr. E. Tauriainen		
Ms. L. Pollack - IJC		
Ms. D. Glance - IJC		
CPT M. Kukesh		
Ms. L. Fry		
Ms. S. Tule		

Item 1. Welcome and Introductions

BG Kaiser initiated a round of introductions.

Item 2. Approval of Agenda and Status of Prior Action Items

The draft agenda was approved. Mr. Heer noted there were no action items from the previous meeting.

Item 3. Current Conditions and Regulation Update

Ms. Jarema presented on the current basin conditions including net basin supplies, water levels and flows, precipitation, and the six-month forecast. Highlights included:

- The above average levels of Lake Superior and Lake Michigan-Huron
- New record high in Net Basin Supply for both lakes Superior and Michigan-Huron in December 2015
- Above average lake levels and outflows forecasted through the summer
- Minimal ice cover compared to last year's ice season.

Regulation and Deviation Strategy Update

Ms. Jarema explained Lake Superior outflows are forecasted to be above average and a deviation strategy will be discussed under the next agenda item.

Action Item – Secretaries to work with the Regulation Representatives to prepare a deviation request for May through November for submission to the IJC.

Item 4. Hydropower Update

a.) Expected Plant Maintenance and Other Outages

Brookfield Renewable Energy Partners (BREP)

Mr. Stefano reported 98 hours of outages on three units during the reporting period, mostly due to preventative maintenance. Several maintenance outages are planned during April through June. Mr. Stefano also reported a five-to-seven day “no flow” condition outage will be requested to decommission the north intake. The date of this work is not yet known.

Cloverland Electric Co-op

Mr. Schmitigal reported canal maintenance may be extended until December 2016. Flow reductions are expected from May through June during maintenance. From July through August the canal work will be suspended and the plant will be able to pass maximum flows. Canal work will resume in September and is expected to be complete in October; however, work may begin at a later date if problems to the US plant are identified.

U.S. Government Hydropower Plant

LTC Sellers reported 534 hours of outages during the reporting period, of which 17 hours were due to ice issues in February. 2-3 day outages are expected during the summer, and a 12-day outage is expected in September to install a relay system. This work will overlap with the CEC canal work.

b.) Request for deviation from Plan 2012

Mr. Allis reviewed the side channel capacity since 2014 and presented the Compensating Works gate forecast for the summer. Due to above-average water levels of Lakes Superior and Michigan-Huron forecasted through the summer, Mr. Bruxer explained the need to potentially deviate in a similar manner as in 2015 to better manage expected operational limitations on hydropower flow capacity, and reduce the potential for adverse consequences due to high flow fluctuations in the St. Marys Rapids. Gates could be opened in April as there is currently no ice remaining. The gate openings may be delayed in May for one week as a fishing show is being shot in the Rapids during the first week of May, and this happens to fit the gate movement strategy.

Action Item – Secretaries to work with the Regulation Representatives to prepare a deviation request for May through November for submission to the IJC.

Item 5. Compensating Works

a.) Inspections

Ongoing, routine, monthly inspections of the Compensating Works occurred in the past six months.

LTC Sellers reported that the monthly inspections conducted on the U.S. portion performed by the U.S. Army Corps of Engineers (USACE) Detroit District found the Compensating Works facilities to be in good condition. The design to automate all eight U.S. gates is 95% complete and is expected to be complete by December 2017-January 2018. Mr. Stefano noted that BREP might consider buying the power and automating the Canadian gates too if the U.S. cable supplying the Compensating Works were large enough to supply power to the entire structure.

Mr. Stefano noted that routine monthly inspections conducted on the Canadian portion by BREP indicated the structure remains in good condition.

b.) Partial Gate Flow Measurements and Rating Equations

Ms. Jarema reported additional flow measurements in the Rapids took place in October and November 2015 and more may be collected in April and throughout the summer/fall. Efforts to develop rating equations are still in progress.

c.) *IWI Gate Movement Study*

Mr. Fowler presented on the progress of the two-dimensional hydraulic model being developed to analyze the effects of various gate settings on flow in the St. Marys Rapids. The model is expected to be complete by the end of 2016. A provisional finding of one gate change over 2.5 hours resulted in a 16.7 cm/hr change in levels at Gauge #1 (nearest the Compensating Works), which is greater than the 10 cm/hr desired maximum threshold).

Action Item – US Regulation Representatives to provide an update at the next Board meeting on the incorporation of a power cable to allow for automation of the Canadian Compensating Works gates.

Action Item – US Regulation Representatives coordinate this year’s flow data collection efforts with the USGS, if necessary.

Item 6. GLAM Committee – Superior Board Task Update

a.) Overview

Mr. McCune presented on the progress of the GLAM Committee, and upcoming products including: the plan evaluation process, 3-5 year strategic work plan, 2017 work plan, first triennial report, and communication products. Mr. Caldwell stressed the importance of the Committee’s efforts to develop Circles of Influence to assist in stakeholder outreach.

b.) Review of Side-Channel Flow and Operating at Partial Gates

Mr. Allis and Mr. Bruxer gave an overview of the GLAM Committee efforts related to the operational improvement of Lake Superior Plan 2012. Current tasks include reviewing the operational limitations of side-channel capacity during hydropower outages and impacts to the St. Marys Rapids under varied gates setting in the Compensating Works.

Item 7. Communications

a.) Website/Facebook Updates

Mr. Bruxer reported on updates to the Board’s website including a new “Flow Control Structures on the St. Marys River: Interactive Tour”. The tool allows users to explore some of the important features associated with the regulation of outflows through the St. Marys River.

b.) Public Feedback

Mr. Allis presented pictures of coastal erosion at McLain State Park and concerns voiced regarding high lake levels. Mr. Allis explained efforts that will be underway this summer by the USACE Detroit District to document shoreline erosion on Lake Superior. Mr. Allis encouraged proactive communication with the public to provide education on coastal erosion processes.

c.) Upcoming 2016 Engineer’s Day and Public Meeting

Engineer’s Day will be held on June 24th in Sault St. Marie, MI and the Board will have an information booth at the event. The IJC is currently working on a Great Lakes-focused newsletter and will provide

copies to the Board for distribution at the event if complete by the time of the event. A URL list will be prepared to hand out at the event, and a tablet may be employed to facilitate people providing contact information.

Item 8. Review of Semi-Annual Report

The draft final report was distributed prior to the Board meeting. Mr. Heer asked that comments to the report be provided by April 8th to allow for distribution to the IJC by April 11th.

Item 9. Next Semi-Annual Meeting and IJC Appearances

Mr. Heer noted the upcoming meetings listed on the agenda.

Action Item – Canadian Secretary to coordinate with Board secretaries to set meeting dates for the fall Board meetings.

Mr. Allis and Mr. Heer will attend the International Watershed Initiatives workshop on Wednesday, April 20 in Washington, DC from 8:30 am until 12:00 pm.

The Spring IJC Appearance is on Wednesday, April 20 in Washington, DC from 3:45 to 4:30 pm.

Item 10. Action Item Review

The following action items were reviewed:

- Secretaries to work with the Regulation Representatives to prepare a deviation request for May through November for submission to the IJC.
- US Regulation Representatives to provide an update at the next Board meeting on the incorporation of a power cable to allow for automation of the Canadian Compensating Works gates.
- US Regulation Representatives coordinate this year's flow data collection efforts with the USGS, if necessary.
- Canadian Secretary to coordinate with Board secretaries to set meeting dates for the fall Board meetings.
- Secretaries to work with Ms. Jarema and Ms. Dickhout to prepare a list of URLs to hand out at Soo Engineers Day.

Item 12. Closing Remarks and Adjourn

BG Kaiser adjourned the meeting at 4:30pm.

**International Lake Superior Board of Control
Spring Semi-Annual Meeting**

March 30, 2016 Detroit, MI, 1 pm
McNamara Federal Building
US Army Corps of Engineers – Detroit District, 6th Floor
447 Michigan Ave, Detroit, MI 48226

(Webinar and Call info next page)

Final Agenda

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| 1. Welcome and introductions [BG Kaiser] | 1300-1310 |
| 2. Approval of agenda and status of prior action items [Heer] | 1310-1315 |
| 3. Current conditions and regulation update [LTC Sellers, Jarema] | 1315-1330 |
| 4. Hydropower update | 1330-1350 |
| a. Expected plant maintenance and other outages [LTC Sellers, Schmitigal, Stefano] | |
| b. Request for deviation from Plan 2012 [Allis, Bruxer] | |
| 5. Compensating Works and flow measurements | 1350-1430 |
| a. Inspections and maintenance [LTC Sellers, Schmitigal, Stefano] | |
| b. Partial gate flow measurements and rating equations [Jarema, Bruxer] | |
| c. IWI gate movement study [Allis] | |
| Break | 1430-1445 |
| 6. GLAM Committee – Superior Board task update | 1445-1515 |
| a. Overview [Allis] | |
| b. Review of side-channel flow and operating at partial gates [Allis, Bruxer] | |
| 7. Communications | 1515-1545 |
| a. Website/Facebook updates [Bruxer] | |
| b. Public feedback [LTC Sellers] | |
| c. Upcoming 2016 Engineer's Day and public meeting [LTC Sellers] | |
| 8. Review of Semi-Annual report [BG Kaiser] | 1545-1600 |
| 9. Next semi-annual meeting and IJC appearances [Heer] | 1600-1610 |
| a. Fall semi-annual: TBD | |
| b. IWI Workshop: Wednesday, April 20 th , Morning | |
| c. IJC Appearance: Wednesday, April 20 th , 3:45-4:30pm | |
| 10. Action item review [Heer] | 1610-1625 |
| 11. Closing remarks and adjourn [BG Kaiser] | 1625-1630 |