

## INTERNATIONAL LAKE SUPERIOR BOARD OF CONTROL

### Minutes of the 02 March 2017 Meeting

The International Lake Superior Board of Control met on 02 March 2017 at the US Army Corps Great Lakes and Ohio River Division in Cincinnati, OH. Mr. Stephen Durrett, Alternate US Chair, chaired and convened the meeting at 8:30 a.m. The attendees were:

<u>United States</u>		<u>Canada</u>
	Board Members	
Mr. S. Durrett (Alt.)		Mr. JF. Cantin (vid)
	Secretaries	
Mr. A. Heer		Mr. R. Caldwell (vid)
	Regulation Representatives	
LTC D. Sugrue		Mr. J. Bruxer (vid)
Mr. J. Allis (Alt.)		Ms. J. Dickhout (Alt.) (vid)
	Associates/IJC	
Mr. C. Sidick		Mr. R. Stefano
Mr. B. Carmichael		Mr. M. Shantz (ph)
Mr. E. Tauriainen		Mr. B. Lismanis
Mr. Kyle McCune		Mr. D. Fay
Ms. S. Runyon		Comm. G. Walker

#### **Item 1. Welcome and Introductions**

Mr. Durrett initiated a round of introductions for individual's attending in-person and those via video conference. He gave special welcome to the new Canadian Co-Chair, Jean-Francois Cantin.

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

The agenda was approved as drafted. Mr. Heer noted that all prior action items were completed, and mentioned the recently distributed IJC Guidance on Board Consensus document.

#### **Item 3. Update from Regulation Representatives**

##### *Hydrologic Conditions*

The Board was provided with the following update on hydrologic conditions for lakes Superior, Michigan-Huron, and Erie. Mr. Sidick presented slides showing recent net basin water supplies, levels and flows (observed and forecasted), precipitation, and climate outlooks through the end of January. It was noted the slides were sufficient though they did not contain data from February. Highlights included:

- The upper Great Lakes remain above average and near or below last year's levels.
- Net basin supplies to Lake Superior were near or above average over the past six months, except in October
- Net basin supplies to Lake Michigan-Huron were near or below average over the past six months, except in January and February.
- Ice cover on the Great Lakes was well below average for the 2016-2017 ice season

#### **Item 4. Hydropower**

##### *Recent and Expected Maintenance and Other Outages*

##### *U.S. Government Hydropower Plant*

LTC Sugrue reported roughly 3200 hours of outages from September through February, mostly due to the protective relay replacement project. The relay replacement project work is expected to continue over the next few months resulting in 21-day unit outages in April and May. Additional short term outages (units 1, 2, 3, and 3A) are expected for 5 days in May for cleaning of the trash racks.

*Cloverland Electric Co-op (CEC)*

LTC Sugrue reported that canal restoration work is on-going. Canal restoration work is expected to follow a similar schedule as last year. Flow reductions in the order of 25% can be expected late April-June, and during September – October. Restoration work may extend into November if ice conditions allow.

*Brookfield Renewable Energy Partners (BREP)*

Mr. Stefano reported no significant outages during the reporting period. Total planned outages totaled 360 hours due to transmission work and maintenance. Upcoming outages include Unit 1 offline April 18-26<sup>th</sup>, Unit 3 offline May 1-26<sup>th</sup>, full station outage for 8 hours on May 3<sup>rd</sup> and May 8<sup>th</sup>, and Unit 2 offline June 5-14<sup>th</sup>.

Beyond 2020, six-month outages are planned for each unit overhaul, scheduled once every second year.

**Item 5. Compensating Works and Flow Measurements**

*a. Inspections and Maintenance*

Ongoing, routine, monthly inspections of the Compensating Works occurred in the past six months. LTC Sugrue reported gate automation of Gates #11-14 on the US side will begin in May, with impacts to the use of the gates starting in July and continuing into September. The preliminary schedule shows that four of the US gates will be closed during two phases of the automation work, including the gates being automated (two at a time) plus two adjacent gates. All US gates will need to be closed for roughly one day at the beginning and ending of each phase position a barge in front of the gates being automated. It is expected that during each phase, the 4 gates will be unavailable for use for no more than 14 days. At this time no issues passing plan flows are anticipated; however, coordination with the Canadian side for use of their gates will be necessary.

*b. Gate Movement Study*

Mr. Allis reported that development of the two-dimensional Adaptive Hydraulics (AdH) hydrodynamic model by the U.S. Army Corps of Engineers (USACE) Detroit District is now essentially complete and it can be used to simulate hydraulic parameters in the St. Marys River, including the rapids area under various gate movement scenarios. Preliminary results have been produced to evaluate the impacts and establish limits on gate movement rates to protect fish in the St. Marys Rapids, but work is on-going.

*c. Eco Hydraulic Model Progress*

Mr. Bruxer reported efforts are currently under way at Environment and Climate Change Canada in Quebec to develop a two-dimensional integrated ecosystem response model (IERM2D) for the St. Marys River. Once completed, the IERM2D will allow the Board and GLAM to better evaluate the impacts on fish and other aquatic species of different flow and water level scenarios in the St. Marys River. The first stage of this work has been funded through the International Watersheds Initiative (IWI) and involves developing a prototype version of the model focused on the St. Marys Rapids and a limited number of fish species. The USACE's AdH model will be used as the basis for simulating hydraulic conditions needed as input to drive the IERM2D model. Aerial imagery has been collected by the USACE with the aim to classify the substrate in the rapids. The project leads have recently begun collecting available information and data on fish species usage of the rapids. This will be related to hydraulic data and used to verify existing species models or develop new ones, as necessary.

*d. Impacts from Gate Automation Project*

This discussion took place under item a. "Inspections and Maintenance".

**Item 6. Regulation Strategy**

*Regulation and Deviation Strategy Update*

Noting the above average water levels of Lake Superior and Michigan-Huron and expected hydropower maintenance on both the Canadian and US sides, Mr. Allis indicated that large increases in gate settings and fluctuations in St. Marys Rapids flows are again forecasted to occur during the next several months under Plan 2012, and so the Regulation Representatives proposed a deviation strategy similar to the one employed in 2015 and 2016. The Board secretaries will draft a request letter to the IJC for authority to deviate from Plan 2012 to reduce the potential consequences of high and fluctuating flows in the St. Marys Rapids due to these factors. The strategy will plan for forecasted excesses in rapids flow due to hydropower maintenance to be evenly distributed and released from May to November, rather than releasing flow on a month-by-month basis as called for by the Plan. It was also noted that the Board may be able to increase the gate setting at the Compensating Works in April again this year if ice conditions allow.

#### **Item 7. GLAM Committee and Superior Board Task Update**

##### *a. Overview and 1<sup>st</sup> Report to the IJC*

Mr. Heer gave a brief overview of GLAM FY 17 work plan items relevant to the Lake Superior Board, and the timeline for Board approval of the GLAM Committee 1<sup>st</sup> Triennial Report to the IJC. Mr. Heer expressed the GLAM is seeking comments by March 17<sup>th</sup>, and final approval by the end of March from all six Chairs of the Boards.

##### *b. Plan Evaluation and Stakeholder Assessment Group Tasks*

Mr. Allis and Mr. Bruxer reported on the GLAM Committee Plan Evaluation and Stakeholder Assessment workshop held in Buffalo, NY in February. Mr. Allis noted the groups were charged with developing methods to annually assess the plan's performance indicators and ensuring stakeholder needs are being incorporated into the assessment. Team members have been identified to review available information and identify data requirements.

#### **Item 8. Communications**

##### *a. Website/Facebook Updates*

Mr. Bruxer noted the Board continues to post media releases on flow and gate changes as well as expected conditions on Facebook and the website. A few comments have been made on Facebook regarding high water levels.

##### *b. Public Feedback*

Mr. Allis noted public concerns due to above-average water levels on Lake Superior and the concern of shoreline erosion. The Board discussed continuing public education efforts on the factors involved with living on the shoreline and varying lake levels.

##### *c. 2017 Engineer's Day and Public Meeting*

LTC Sugrue reported the 2017 Engineer's Day will be held at the Soo Locks on June 30<sup>th</sup>. The Board plans to set up an information booth the same as past years. Public education on the Board's roles and responsibilities will be the main focus. The Board also discussed having additional material regarding recent high water levels and educational material concerning living on the shoreline of the Great Lakes.

The Board discussed holding its annual public webinar tentatively scheduled at 12pm EST on July 19<sup>th</sup> hosted by the US. This would be somewhat later than in past years, allowing the webinar to be promoted at Engineer's Day and held closer to the peak of summer when the public may be more interested in water level conditions. The Board secretaries will confirm the date and hosting responsibilities.

#### **Item 9. Review Semi-Annual Progress Report**

Mr. Sidick reported on the draft semi-annual report. The draft does not include data from February, which will be incorporated after the meeting. After the data has been incorporated the Board secretaries will distribute it to the Board for comment by 24 March. The report will be finalized before the end of March for distribution to the IJC and final approval for public release.

#### **Item 10. Next Semi-Annual Meeting and IJC Appearances**

##### *a. IJC Appearance*

Mr. Fay confirmed the Great Lakes Boards will appear before the Commissioners on May 3<sup>rd</sup> in Washington DC beginning at 8:30 am at the Capitol Skyline Hotel. The reception will be held the same evening at the State Department and an IWI workshop is scheduled for the morning of May 4<sup>th</sup>. A formal invitation will be distributed shortly.

b. *GLAM Committee Meeting*

The GLAM Committee has tentatively scheduled a meeting at the end of June in Chicago, IL.

c. *Fall Board Meeting*

Mr. Heer announced the fall meeting will be held in Queenston, ON tentatively scheduled for September 14<sup>th</sup> or September 21<sup>st</sup>. The Board members and associates noted the 21<sup>st</sup> is preferable. The secretaries will confirm the meeting date.

**Item 12. Action Item Review**

Mr. Heer noted the action items resulting from this meeting:

- Secretaries to prepare the letter to the IJC to request flow deviations through November. Regulation Representatives will review prior to requesting signatures from the Co-Chairs.
- Secretaries to re-distribute the GLAM 1<sup>st</sup> Triennial Report to the IJC for Board review.
- Secretaries to confirm July 19<sup>th</sup> as the date for the public teleconference and confirm US hosting
- Secretaries to redistribute the draft Semi-Annual report for review and signature prior to March 24<sup>th</sup>.
- Secretaries to confirm fall Board meeting dates and location
- Regulation Representatives and supporting staff to continue to develop materials for distribution on Engineers Day.

**Item 13. Closing Remarks and Adjourn**

Mr. Durrett made closing remarks. Mr. Cantin thanked everyone for their attendance and for hosting a video conference. The meeting adjourned at 11:20 am.

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

March 2, 2017, 8:30am-12:00 pm

John Weld Peck Federal Building

US Army Corps of Engineers – Great Lakes and Ohio River Division

550 Main Street, 10<sup>th</sup> floor, Cincinnati OH 45202

Teleconference: 1-877-336-1839, Access: 5162099, Security: 1111

Web Meeting: <https://www.webmeeting.att.com>, Meeting No: 87773361839, Access: 5162099

### Final Agenda

1. Welcome and Introductions [Durrett] 8:30
2. Approval of Agenda and Status of Prior Action Items [Heer] 8:35
3. Hydrologic Conditions and Regulation Update [LTC Sugrue, Sidick] 8:40
4. Hydropower Update 9:10
  - a. Expected Plant Maintenance and Outages [LTC Sugrue, Schmitigal, Stefano]
5. Compensating Works and Flow Measurements 9:25
  - a. Inspections and Maintenance [LTC Sugrue, Schmitigal, Stefano]
  - b. IWI Gate Movement Study [Allis]
  - c. Eco Hydraulic Model Progress [Bruxer]
  - d. Impacts from Gate Automation Project [Allis]
6. Regulation Strategy and Proposed Deviation [Allis, Bruxer] 10:00
- Break (15min)* 10:35
7. GLAM Committee – Superior Board Task Update 10:50
  - a. Overview and 1<sup>st</sup> Report to IJC [Heer]
  - b. Plan Evaluation and Stakeholder Assessment Group Tasks [Allis, Bruxer]
8. Communications 11:10
  - a. Website/Facebook Updates [Bruxer]
  - b. Public Feedback [LTC Sugrue]
  - c. Upcoming 2017 Engineer's Day and Public Meeting [LTC Sugrue]
9. Review of Semi-Annual Report [Sidick] 11:20
10. Next Semi-Annual Meeting and IJC Appearances [Heer] 11:30
  - a. IJC Appearance: Tentatively Week of May 1<sup>st</sup>
  - b. GLAM Committee Meeting – Tentatively Mid-June, 2017
  - c. Fall Board Meeting: TBD Queenston, ON
11. Action Item Review [Heer] 11:35
12. Closing Remarks [Durrett] 11:45