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2 **INTERNATIONAL NIAGARA BOARD OF CONTROL (INBC)**

3  
4 Minutes of the September 29, 2022 Meeting  
5 Burlington, ON, Canada  
6

7 Mr. Thompson called the meeting to order at 1:00 PM in the South Seminar Room at the  
8 Canada Centre for Inland Waters, 867 Lakeshore Road, Burlington, Ontario, Canada.  
9 This was the first in-person meeting after the COVID-19 travel restrictions eased. Several  
10 members and associates from both sides of the border participated by video conference  
11 call, these participants are noted by a (VTC) after their names. Those in attendance were:  
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**UNITED STATES**

**CANADA**

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**BOARD MEMBERS**

BG K. Peeples, Co-Chair (VTC)  
Mr. K. McCune, Alt. Co-Chair  
Mr. D. Capka, Member (VTC)

Mr. A. Thompson, Co-Chair

**SECRETARIES**

Mr. B. Carmichael

Mr. H. Ahmad

**WORKING COMMITTEE AND ASSOCIATES**

LTC C. Krug (VTC)  
Ms. L. Schifferle (VTC)  
Mr. K. Koralewski (VTC)  
Ms. C. Fisher (VTC)  
Mr. A. Armstrong (VTC)  
Mr. E. Tauriainen  
Ms. L. Greer  
Mr. K. Kompoltowicz

Mr. D. Beach  
Ms. J. Fooks  
Ms. C. Cho  
Dr. K. Kornelsen (VTC)

**OTHER**

Mr. D. Fay, IJC  
Mr. A. Greeley, IJC

Ms. E. Klyszejko, IJC  
Mr. J. Allis, IJC

15 **Item 1. Opening Remarks, Introductions**

16 Mr. Thompson welcomed attendees to the first in-person meeting of the board after the  
17 COVID-19 travel restrictions eased. Each attendee provided a brief introduction at the  
18 start of the meeting.

19

20 **Item 2. Approval of Agenda**

21 The draft agenda was approved with no additions to the agenda and is attached.

22

23 **Item 3. Membership Changes, Roles and Responsibilities**

24 There were several changes in the Canadian and US members of the board and its  
25 International Niagara Working Committee (INWC) during this reporting period. On March  
26 23, 2022, Mr. Hafiz Ahmad, Environment and Climate Change Canada (ECCC), was  
27 appointed Canadian Secretary, replacing Mr. Derrick Beach. On June 1, 2022, BG  
28 Kimberly Peeples assumed the duties of the US Co-Chair, succeeding Mr. Stephen  
29 Durrett. On June 17, 2022 LTC Colby Krug became the US Co-Chair of the INWC,  
30 replacing LTC Eli Adams. There are currently two vacant INWC member seats, one for  
31 Canada due to Mr. Jonathan Staples' retirement and the other one for US as Mr. John  
32 Allis left the United States Army Corps of Engineers (USACE) on August 12, 2022 and  
33 accepted a new position with the International Joint Commission (IJC).

34

35 **Item 4. Review of Previous Meeting Minutes**

36 The review of meeting minutes from the last board meeting on March 23, 2022 will be  
37 completed by email. A first draft was distributed to the board on September 23, 2022 for  
38 comments by September 30, 2022.

39

40 **Item 5. Update on Lake Erie/Niagara River Conditions**

41 The board received an update of water levels, precipitation, net basin supplies, and flows  
42 for Lake Erie and Niagara River for the reporting period. The water levels of Lake Erie  
43 were above average for the reporting period. Lake Erie began the reporting period with a  
44 March mean level of 43 cm (16.9 inches) above its period-of-record (1918-2021) average  
45 level for the month. The level of Lake Erie remained above average on a monthly basis from  
46 March through August. During its seasonal rise, Lake Erie's water level rose 15 cm (5.9  
47 inches) from March to June, compared to its average rise of 26 cm (10.2 inches). In July, the  
48 lake level decreased 7 cm (2.8 inches) instead of its average decline of 1 cm (0.4 inches) for  
49 the month. Lake Erie levels ended the reporting period with an August monthly mean water  
50 level of 27 cm (10.6 inches) above average.

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55 **Item 6. Lake Erie – Niagara River Ice Boom**

56 **a) 2021-22 Ice Boom Season Review and Preparations for 2022-23 Season**

57  
58 The Lake Erie – Niagara River Ice Boom was operated by the Power Entities in accordance  
59 with conditions of International Joint Commission Order of Approval for the 2021-22 ice  
60 season. The 2021-2022 ice season typically consisted of seasonal and higher than seasonal  
61 temperatures. Ice cover over Lake Erie started increasing during the week of January 8 and  
62 peaked at about 96% during the week of January 29. It remained above 70% until the last  
63 week of February and then steadily declined throughout the remainder of the 2021-2022 ice  
64 season.

65  
66 The helicopter and fixed wing flights to determine eastern Lake Erie ice conditions and extent  
67 were not undertaken due to COVID-19 restrictions. Satellite imagery was used to estimate  
68 the ice cover on the eastern basin of Lake Erie instead. Satellite imagery analysis on March  
69 17 showed 1907 km<sup>2</sup> (736 mi<sup>2</sup>) ice cover, which rapidly decreased to 511 km<sup>2</sup> (197 mi<sup>2</sup>) on  
70 March 21, thus dropping below 650 km<sup>2</sup> (250 mi<sup>2</sup>).

71  
72 A media advisory was issued by the board on March 28, 2022 informing the public that  
73 removal operations would begin on March 29. The delay in issuance of the media advisory  
74 was based on the weather forecast and field conditions. NYPA began ice boom removal on  
75 March 29 and had to stop removal work for a couple of days due to high winds and large  
76 amounts of ice breakup flowing through the open boom. The ice boom removal was  
77 completed by April 4 with all spans tied off at the Buffalo Harbor Breakwall. All spans were  
78 moved to their summer storage facility by April 13, 2022, ending the 2021–2022 ice boom  
79 season.

80  
81 The Canadian Ice Service (CIS) has recently published the Ice Climate Normals from 1991-  
82 2020; previous statistics were for 1981-2010. A comparison of Lake Erie ice coverage  
83 between these two statistics were presented. The board found them very interesting and  
84 asked to discuss this comparison in the Ice Boom 5-years review. It was also suggested that  
85 including additional data for the earlier climate normals would add value to this analysis.

86  
87 In preparation for the 2022-2023 ice boom season, NYPA has been doing maintenance  
88 throughout the summer. The INWC and Power Entities are starting to watch Lake Erie for  
89 temperatures close to freezing in order to begin installation of the ice boom. It is anticipated  
90 that there will be no need for additional approvals this coming ice season.

91  
92 **b) Status of 2021-22 Ice Boom Report**

93 The first draft of the report will be distributed the week of October 3. The board asked that  
94 the INWC present the Ice Boom report to them before the board meeting. All the  
95 contributors (e.g. the PEs) are requested to provide data on time for timely preparation of  
96 the report. The INWC aims to prepare the Ice Boom draft report in the summer from the  
97 next year onwards.

98

99 **Item 7. Falls Flow Violations**

100 During the reporting period, there were no Falls flow violations and flows over Niagara  
101 Falls met or exceeded the minimum Treaty requirements at all times.

102

103 **Item 8. Chippawa-Grass Island Pool**

104 The board received a summary of the operation and maintenance of the Chippawa-Grass  
105 Island Pool (CGIP) and International Niagara Control Works (INCW).

106 **a) Compliance to Directive**

107 The Power Entities were able to comply with the board's directive at all times during the  
108 reporting period of March 1, 2022 through August 31, 2022.

109

110 **b) Operations and Maintenance**

111 The board received an update on regulatory gauge outages, regulatory reporting,  
112 International Niagara Control Works (INCW) outages, and INCW environmental issues.  
113 Operations of the CGIP and INCW were satisfactory for this reporting period. An update  
114 on regular maintenance of the INCW was provided. Furthermore, an update on multiple  
115 projects that have been suspended due to COVID-19 was provided as well as an update  
116 on the ice camera replacement project for more reliable ice monitoring.

117 All gauges required for the operation of the INCW were in service during this reporting period  
118 with minimal down time.

119 The Niagara River Water Level Gauge (WLG) house replacement project to address the  
120 poor conditions of gauge houses and to upgrade them is now scheduled for 2023. The  
121 project was suspended due to COVID-19 supply chain delays. To address the WLG  
122 communication failures, a new project is planned for 2025 to replace Niagara River WLG  
123 communication infrastructure. The gate hydraulic system project is scheduled for 2023-  
124 2024. The gate rehabilitation project is planned to start in 2024 to replace all gate  
125 components and controls; the project will run for 10 years until completion. The ice camera  
126 replacement project is delayed until 2023 to coincide with the NYPA camera replacement  
127 project. A common equipment and software is planned for stronger and more reliable ice  
128 monitoring.

129

130 **Item 9. Plant Upgrades and Unit Testing**

131 The board received a summary of the operation and maintenance of the power plant  
132 generating units.

133

134 **a) OPG**

135 OPG is continuing a unit rehabilitation program which began in 2007. The board  
136 received an update on the ongoing upgrades. Sir Adam Beck 1 (SAB 1) G10

137 Gibson Test Report was finalized and submitted for approval. SAB 1 G5 overhaul  
138 is complete, the unit has returned to service, and a Gibson Test was completed in  
139 April-May 2022.

140 A question was asked about the Open Cut Channel improvement project. The  
141 reply to the board was that the project is delayed to 2027.

142 OPG is in the process of replacing the existing Water Record Accounting (WRA)  
143 system for both the SAB and DeCew GS. The Kisters WISKI product will be used  
144 and is expected to go live in late 2022 or early 2023. WISKI uses standard web  
145 format data; the INWC could develop links and pull data directly from the WISKI  
146 web application. The Niagara River Control Centre (NRCC) has a separate WRA  
147 system that will not be replaced by this project.

148  
149 **b) NYPA**  
150 The board received an update on ongoing maintenance activities for the Lewiston  
151 Pump Generating Plant and Robert Moses Plant LEM.

152  
153 **Item 10. Review Discharge Measurement Programs**

154 **a) Overall Schedule** – Flow measurements are taken on a regular schedule to  
155 confirm the accuracy of the gauges used to determine the allocation of water from  
156 the Niagara River. This includes in the upper Niagara River at the International  
157 Railway Bridge, over Niagara Falls at the American Falls, in the lower Niagara  
158 River at the Ashland Avenue Rating Section, and finally in the Welland Canal. The  
159 schedule for these flow measurements were reviewed. The measurements at  
160 upper Niagara River were taken in May 2022 and the lower Niagara River  
161 measurements are planned for November 2022. All other locations are scheduled  
162 or postponed for 2023 or later. There are no key issues with the current ratings.

163 **b) International Railway Bridge** – The last set of flow measurements in the upper  
164 Niagara River at the International Railway Bridge were taken in May 2022. The  
165 next measurements at this location are scheduled for spring 2025. Data  
166 processing and report writing for these measurements are in progress.

167 **c) Welland Canal** – The last set of flow measurements were taken in December  
168 2021. The measurements are currently under review. The next measurement  
169 series in the Welland Canal are planned for the fall of 2024.

170 **d) Ashland Avenue Rating Section** – The last set of flow measurements in the  
171 lower Niagara River were taken in September 2019. The report for this has been  
172 finalized. The next set of measurements is planned for November 2022.

173 There was a discussion about alerting fishermen concerns about the abnormal  
174 flows and levels that may be present during the upcoming Ashland Avenue Rating

175 Section flow measurements. It was suggested a public press release be published  
176 on the board website to let everyone know about the measurement activity saying  
177 something like: “be cautious, flow may be more than normal due to government  
178 measurements”.

179 **e) American Falls** – The last set of flow measurements were taken in May 2017. All  
180 reports are up to date at this location. The next set of measurements were planned  
181 for spring 2022.

182 The board was informed that the USA crew attempted to take the American Falls  
183 measurements in May 2022 but the flow measurements were unsuccessful due to  
184 some technical issues. The Board was asked about the possibility to defer the  
185 2022 measurements and take the measurements in 2027. The board decided that  
186 10 years would be too long to go without verification measurements and ask that  
187 measurements be planned for 2023.

188 **f) Lower Niagara Index Velocity Gauge** – This gauge has been installed by  
189 USACE at Old Fort Niagara, Youngstown, New York. It is up and running, and  
190 continues to monitor. The last set of measurements were taken by the USACE in  
191 May 2022. All reports are up to date for this location. The next set of  
192 measurements is planned for fall 2022.

193  
194 **Item 11. 2022 Public Outreach Events**  
195 The tri-board public webinar took place on August 30, 2022 in English and August 31,  
196 2022 in French. A total of 70 members of the public participated in the English session  
197 and six people attended the French webinar. The webinars focused on current and  
198 forecast conditions of the Great Lakes and water levels throughout the system. Overall,  
199 both webinars went well and participants appreciated the opportunity to be more engaged.  
200 For the 2023 public outreach, the board supports combined IJC Great Lakes Boards  
201 events such as the tri-board public webinar. Multiple other options were discussed for the  
202 public outreach including the county fairs and other public events, e.g. Port Colborne  
203 Canal Days, Erie County Fair, etc. This would potentially increase awareness of the  
204 outreach and further encourage participation from the public.

205  
206 **Item 12. Review 139<sup>th</sup> Semi-Annual Progress Report**  
207 The draft of the 139<sup>th</sup> progress report was distributed to the INBC members and associates  
208 for their review and the comments have been received. The final draft will be out for the  
209 board members’ signature the week of October 3, 2022.

210  
211 **Item 13. Other Business**

212 **a. Niagara inspections – update on status**  
213 Item discussed at INC meeting.

214 **b. Adaptive Management Update**  
215 Chris Warren is new IJC's Great Lakes Adaptive Management (GLAM) Committee  
216 Co-Chair on the US side. Wendy is doing the board-related GLAM work on the  
217 Canadian side. GLAM is not currently engaged in any work to support the board.  
218 The board is in agreement that it is best to give GLAM space to do their work at  
219 this time. Should extra hands be required, priorities should be identified first before  
220 letting GLAM know.

221 **c. Falls Recession**  
222 The board was updated on monitoring of the Niagara Falls crest recession. There  
223 were no significant changes in the crest line as noted over the last reporting period  
224 based on available camera images of Niagara Falls on the internet.

225 **d. American Falls Bridge Update**  
226 The project's current status is in deliberation awaiting for NYS to make a decision to  
227 pursue channel or localized cofferdams. There are no active plans for IJC application  
228 at this time. It is expected that a representative will reach out when they have made  
229 a decision.

230 **e. Board Webpage**  
231 The board wishes to ensure that documents intended to be public are easily  
232 accessible and up-to-date. The board's frequently asked questions (FAQs) page  
233 was updated for some issues that arose after the IJC website transferred to a new  
234 domain. The IJC will be contacted to update the board membership page and other  
235 boards' web contents that automatically pop up on the INBC home page.

236 **f. INWC and INBC letterhead/logo**  
237 Ideas were presented to the board about standardized letterheads/logos for its  
238 communication, media releases, and monthly letters of its working committee.

239 **g. INBC in Tri-Board Newsletter**  
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241 The board was given a briefing on its active involvement in the tri-board newsletter.  
242 The board expressed its continued support for the tri-board newsletter and  
243 welcomed additional ideas on this.

244  
245 **Item 14. IJC Appearance**  
246 The next IJC Appearance is scheduled for October 19, 2022 10:00-10:30 AM in person  
247 and via virtual meeting (MS Teams). A presentation for the IJC will be prepared based on  
248 requested requirements from the IJC and provided for comment.

249

250 **Item 15. Next Board Meeting, Closing Remarks, and Adjourn**

251 The next board meeting is tentatively scheduled for March 2023 with location to be  
252 determined. The closing remarks were made and the meeting adjourned at 3:25 PM.

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**International Niagara Board of Control  
Fall Semiannual Meeting  
September 29, 2022  
1:00 p.m. – 3:30 p.m.**

**Canada Centre for Inland Waters  
867 Lakeshore Road, Burlington, ON, Canada**

**Agenda**

- |   |           |
|---|-----------|
| 1. Opening Remarks, Introductions (Thompson)                              | 1:00-1:05 |
| 2. Approval of Agenda   | 1:05-1:10 |
| 3. Membership Changes, Roles and Responsibilities (Ahmad/Carmichael)      | 1:10-1:15 |
| 4. Review of previous meeting minutes (Carmichael)                        | 1:15-1:20 |
| 5. Update on Lake Erie/Niagara River Conditions (Ahmad)                   | 1:20-1:30 |
| 6. Lake Erie – Niagara River Ice Boom                                     |           |
| a) 2021-22 / 2022-23 Ice Boom Seasons (Ahmad/Asklar)                      | 1:30-1:40 |
| b) Status of 2021-22 Ice Boom Report (Schifferle)                         | 1:40-1:45 |
| 7. Falls flow violations (Ahmad/Beach)                                    | 1:45-1:50 |
| 8. Chippawa-Grass Island Pool   |           |
| a) Compliance to Directive (Ahmad/Malier)                                 | 1:50-1:55 |
| b) Operations and maintenance (Malier)                                    | 1:55-2:05 |
| 9. Plant Upgrades and Unit Testing  |           |
| a) OPG (Kornelsen)  | 2:05-2:15 |
| b) NYPA (Asklar)  | 2:15-2:25 |
| 10. Review discharge measurements program (Beach/McClerren)               | 2:25-2:35 |
| a) Overall schedule   |           |
| b) International Railway Bridge (Buffalo and Fort Erie)                   |           |
| c) Welland Canal  |           |
| d) Ashland Avenue Rating Section  |           |
| e) American Falls   |           |
| f) Lower Niagara Index Velocity Gauge                                     |           |
| 11. 2022 Public Outreach Events (Greer/Ahmad/Carmichael)                  | 2:35-2:45 |
| 12. Review of 139 <sup>th</sup> Semi-Annual Progress Report (Ahmad/Beach) | 2:45-2:50 |
| 13. Other Business  |           |
| a) Niagara inspections – update on status (Beach/Ahmad)                   | 2:50-2:55 |
| b) Adaptive Management Update (Carmichael)                                | 2:55-3:00 |
| c) Falls Recession (Cho/Beach/Ahmad)                                      | 3:00-3:05 |
| d) American Falls Bridge Update (Schifferle)                              | 3:05-3:10 |
| e) Board webpage (Ahmad/Beach/Carmichael)                                 | 3:10-3:15 |
| f) INWC and INBC letterhead/logo (Schifferle/Greer)                       | 3:15-3:20 |
| g) INBC in Tri-Board Newsletter (Beach/Ahmad)                             | 3:20-3:25 |

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|---|-----------|
| 14. IJC Appearance – Date, topics for presentation  | 3:20-3:25 |
| 15. Next Board Meeting, Closing Remarks and Adjourn | 3:25-3:30 |