ONE HUNDRED AND TWENTIETH PROGRESS REPORT

to the

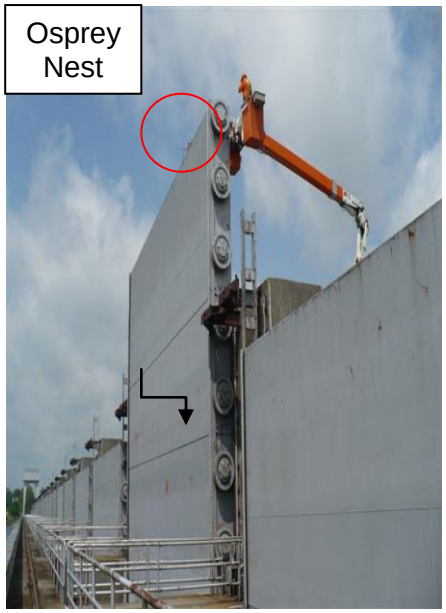
INTERNATIONAL JOINT COMMISSION

by the

INTERNATIONAL ST. LAWRENCE RIVER BOARD OF CONTROL

Covering the Period

MARCH 22, 2013 THROUGH SEPTEMBER 18, 2013



SEPTEMBER 18, 2013

COVER PHOTO: View of crane removing an osprey nest from Gate #9, one egg at a time, for successful relocation to a power-pole located on the New York side of the dam
Close up of the osprey nest atop Iroquois Gate #9, photos taken by OPG staff

EXECUTIVE SUMMARY

REGULATION STRATEGY AND RESULTS

Lake Ontario received water supplies below average during the months of March and May, near average in April, more than double the average in June and above average in July and August, although within the range of those used in the design of the regulation plan, Plan 1958-D. Lake Ontario levels began the six-month reporting period 12 cm (4.7 in) below average, reaching average in early June and continuing above average for the remainder of the reporting period. Water levels on Lake Ontario peaked later than usual, in early July at 75.17 m (246.62 ft), 20 cm (8 in) below the monthly limit of criterion h. Water levels on Lake Ontario and in the St. Lawrence River were thus maintained within the criteria specified in the 1956 Amended Orders of Approval of the International Joint Commission (the Commission).

The Board's strategy at the start of the reporting period was to decrease Lake Ontario outflows relative to plan-specified flows when possible to store water for later use, if necessary. The Board varied the rate at which the water was stored in consideration of Ottawa River outflows and water levels in the Montreal area and downstream, and to prevent unduly high levels on Lake St. Lawrence. The freshet from the Ottawa River and wet conditions downstream allowed the Board to decrease releases from Lake Ontario below those specified by the regulation plan, starting 27 April, as levels on Lake St. Louis approached 30 cm (1 ft) below the flood alert level, the threshold level established by the Board. As the freshet subsided, Lake St. Louis levels subsequently declined, and as they approached 21.2 m (69.55 ft), flows were returned to those specified by the regulation plan on 1 June 2013. Outflows were increased for 16 hours to assist the entry of one vessel to the Port of Montreal in late August.

At the end of the reporting period, the level on Lake Ontario was 1 cm (0.4 in) above average. The level was 2.7 cm (1.1 in) above what it would have been had releases been those specified by Plan 1958-D.

BOARD ACTIVITIES

The Board met in person twice during the reporting period to conduct business, assess conditions, and affirm its outflow strategy. The Regulation Representatives continued to provide the Board with weekly information on conditions in the system, monthly assessments of hydrologic conditions and forecasts, and risk assessments. The Board reviewed the information each month through emails, since more in-depth consultation to revise or affirm the regulation strategy was unnecessary. The Operations Advisory Group continued its weekly teleconference to apprise the Regulation Representatives of operational requirements and constraints. The Gauging Committee held two teleconferences to obtain an update on the power entities' work plan for gauging equipment and to discuss recommendations from its recent audits and inspections. The Board wrote a letter dated 30 August 2013 to the U.S. National Ocean and Atmospheric Administration to request its continued support for the gauging audits and inspections. The Commission appointed Mme Patricia Clavet to the Board 5 June 2013, and Canadian regulation representatives and new Operations Advisory Group members joined during the reporting period.

COMMUNICATION ACTIVITIES

A multi-city public meeting/teleconference/webinar was held on 26 March 2013 in Rochester, NY and Dorval, PQ. The Board posted its presentation materials beforehand on its website for public access. The joint Board-Commission Communications Committee continues to provide advice and assistance on a variety of issues. Environment Canada and the U. S. Army Corps of Engineers provided additional staff resources to assist the communications efforts of the Board. The Board launched an enhanced website at

the end of July. Board members and staff responded to a number of public inquiries and requests for information. The Board continues to improve its communications effectiveness with the use of Facebook.

An appendix provides the background material that was previously repeated in the semi-annual reports of the Board to the Commission. Providing the material in this manner allows the report to be focussed on the issues and conditions of the reporting period, allowing the interested reader to refer to this appendix for the background information. The appendix has been sent under separate cover.

TABLE OF CONTENTS

Contents

LIST OF TABLES

LIST OF FIGURES

1 HYDROLOGICAL CONDITIONS

1.1 Lake Ontario Basin - Net Basin Supply

The local net basin supplies (NBS) to Lake Ontario were below average in March, and May, near average in April, more than double the average in June and above average in July and August. Monthly NBS values for the reporting period and lastly for the total six-month period are provided in Table 1. Over the six-month period, supplies were near normal and have been exceeded 45% of the time. Figure 1 shows the long-term average monthly NBS for the period 1900 to 2012 and the supplies for this reporting period. Also shown, for comparison purposes, are the monthly NBS for 2011 and 2012. The horizontal bars above and below the curves on the graph are the long-term monthly net basin supplies maxima and minima.

1.2 Precipitation

Monthly precipitation amounts for the Lake Ontario and Great Lakes basins, and the average for the total six-month period are provided in Table 2. Precipitation was below average in March, May and August in the Lake Ontario basin and above in April, June, and July. The total amount of precipitation in the six-month reporting period was 464 mm (18.3 in.), which was approximately average and has been exceeded 46% of the time. Total precipitation for the entire Great Lakes basin for the six-month period was 497 mm (19.6 in.), which was well above average, having been exceeded only 8% of the time.

1.3 Supply from Lake Erie

The inflows to Lake Ontario from Lake Erie during the reporting period are provided in Table 1. With Lake Erie's level below average at the beginning of the reporting period and rising slightly above average in early July, its flow to Lake Ontario also gradually increased, although remaining below average through August. The six-month average outflow would be expected to be exceeded 64% of the time.

1.4 Lake Ontario – Net Total Supply

The monthly net total supplies to the Lake are provided in Table 1 and shown graphically in Figure 2. The six-month net total supplies for the past ten years are provided in Table 3 for comparison purposes. The monthly net total supplies were slightly below average in March, April, May, and August while slightly above average in June and July. Overall, the total supply was 97% of average during this reporting period and has been exceeded 60% of the time.

1.5 Ottawa River Basin

Figure 3 shows the Ottawa River flows, which rose from average values at the end of March to above average in late April, before falling to average by mid-July, and ending the reporting period slightly below average. The Board used the Ottawa River freshet period, which occurred somewhat later than normal, as an opportunity to store water on Lake Ontario.

2 REGULATION OF FLOWS & LEVELS

2.1 Board's Regulation Strategies and Resulting Actions

In order to be responsive to conditions and the needs of interests, the Board assessed conditions throughout the year, also twice in meetings and in numerous email exchanges, and developed outflow strategies with the aid of regular monthly reports from the Regulation Representatives that reviewed conditions in the Great Lakes-St. Lawrence River system. The strategies for the reporting period, and their rationale, are available on the Board's website: http://www.ijc.org/en_/islrbc/Other_Documents . Figure 4 shows the Lake Ontario outflows for 2013 to the end of the reporting period in comparison to the long-term

average outflows, calculated pre-project and plan-specified outflows. In summary, the Board strategy at the beginning of the reporting period was to release outflows slightly lower than the regulation plan during the Ottawa River spring freshet in order to store no more than 5 cm (2 inches) of water on Lake Ontario in consideration of possible future downstream needs for augmented water supplies later in the year. The action also benefited recreational boating, riparian and environmental interests.

2.2 Deviations from Regulation Plan 1958-D

Table 4 summarizes the Board's discretionary deviations during the reporting period. On 22 March 2013, the Lake Ontario level was that prescribed by Plan 1958-D. At its March meeting, the Board decided to deviate from the plan to store no more than 5 cm (2 inches) of water on Lake Ontario to meet critical needs later in the year. Outflows less than plan-specified were released beginning 27 April as Lake St Louis approached 30 cm (1 foot) below flood alert levels, the threshold established by the Board. Outflows then continued modestly below plan-specified flows to store water on Lake Ontario until 1 June 2013, when the level of Lake St. Louis fell below 21.2 m (69.55 ft), and the Board agreed to stop storing water and return to plan flows. As a result of the Board's actions, 2.8 cm (1.1 inch) of additional water was stored on Lake Ontario. On 20 August 2013, flows were increased 200 m^3/s (7050 cfs) above Plan flows for 16 hours to assist a ship arriving at the Port of Montreal. At the Board's 18 September meeting, it decided to retain the water stored on Lake Ontario, relative to Plan 1958-D, to meet critical needs later in the year, and release any remaining stored water prior to ice formation.

2.3 Iroquois Dam Operations

The gates at Iroquois Dam were lowered beginning on 15 May 2013. The next day all the gates had been lowered, except for Gate No. 9. The operation of this one gate was delayed to allow Ontario Power Generation (OPG) to successfully move an osprey nest. The gate was lowered into the water following the relocation of the nest on 30 May to a hydro pole which OPG installed on the U.S. side for this purpose. On 4 July 2013 the gate operations to lift all the gates to their normal position started. Fourteen of the 32 gates were raised by the next day, 5 July and the remaining gates were lifted out of the water by 15 July after the removal of river debris which had hindered their immediate operation.

2.4 Results of Regulation

2.4.1 Upstream

Lake Ontario

The effects of Regulation Plan 1958-D and the Board's outflow strategies on the flows out of Lake Ontario are shown in Figure 4. For comparison purposes, the daily flows of 2011, 2012 and 2013 to the end of the reporting period are shown. The daily levels on Lake Ontario are shown in Figure 5, with the daily flows of previous years also shown for comparison. During the reporting period, levels started below average and gradually rose above average in early June, reaching an unusually late peak level of 75.17 (246.62 ft) in mid July 2013. At the end of the reporting period, the level was at 74.75 m (245.24 ft), about 1 cm (0.4 in) above the long-term average.

As a means of determining the impact of regulation activities on levels and outflows, the Board provides the Commission with a comparison of Lake Ontario's actual monthly levels and outflows to those that would have occurred under pre-project conditions (that is, without regulation). A summary of this comparison for the reporting period is given in Table 5. This shows that Lake Ontario ranged from about 5 cm to 13 cm (2 - 5 inches) lower during the initial portion of the reporting period than it would have been without regulation and from about 5 cm (two inches) higher during June and July before dropping below again at the end of

the reporting period. A comparison of the daily levels to long-term average, and weekly computed Plan 1958-D levels and preproject conditions is also shown in Figure 6.

Lake St. Lawrence

The water levels of Lake St. Lawrence started the reporting period above average, and with only two short-term exceptions occurring on 12 April and 2 July 2013, levels remained above average throughout the reporting period, due primarily to relatively low outflows from the lake. On 18 September 2013, the water level was 73.20 m (240.16 ft), 3 cm (1.2 in) above the long-term average.

2.4.2 Downstream

Lake St. Francis

Daily water levels at Summerstown on Lake St. Francis were below average at the beginning of the reporting period, and began fluctuating around average in early April and did so until mid-June, when levels rose above average. By mid-July, levels once again fluctuated about average, and did so for the remainder of the reporting period. Daily mean levels were above the Seaway Low Alert level throughout the reporting period.

Lake St. Louis

After peaking in late April, the daily water levels on Lake St. Louis dropped below average (based on the period 1960 through 2012) in early May, where they remained except for brief rainfall-induced rises in June. As levels approached 30 cm (1 foot) below the flood alert level of 22.10 m (72.5 ft), the Board employed under-discharge deviations to store water on Lake Ontario. Under discharges continued until the level of Lake St. Louis had fallen below 21.20 m (69.55 ft). As shown on Figure 7, the water levels on Lake St. Louis were above the Seaway Low Alert Level of 20.6 m (67.6 ft) throughout the reporting period.

Port of Montreal

The daily levels at the Port peaked on 27 and 29 April at 7.49 m (24.6 ft), about a week later and fractionally higher than the long-term average (1967-2012). Water levels declined gradually with a number of brief rises that occurred during rain events, otherwise staying below average. Water levels remained above chart datum throughout the reporting period. Figure 8 indicates the daily water levels in the Port.

3 BOARD ACTIVITIES

3.1 Board Meetings & Conference Calls

The Board continued to oversee the operations of the hydropower project in the international reach of the St. Lawrence River. The Board, primarily through the offices of the Regulation Representatives, monitored conditions throughout the Lake Ontario-St. Lawrence River system. The Regulation Representatives provided the Board with: weekly regulation data; monthly reviews of the hydrological conditions; risk analyses using water level outlooks; and, advised the Board on regulation strategy options and their potential impacts on water levels and interests throughout the system. The Board's Operations Advisory Group (OAG) held weekly teleconferences to review conditions and advise the Regulation Representatives on weekly operational requirements and constraints. The Committee on River Gauging continued to monitor the Power Entities' program for operation and maintenance of the gauging system required for Board operations, to hold teleconferences and to report annually.

The Board continued to assess conditions in the basin and adjust or affirm its regulation strategy accordingly. Conditions were such that the Board used email exchanges monthly, since more in-depth consultation to revise or affirm the regulation strategy was unnecessary. During the reporting period, the Board held meetings on 17 April in Washington, DC and on 18 September in Burlington, Ontario. Table 6 provides a list of Board Members in attendance at the meetings.

3.2 Meetings with the Public and Input from the Public

The Board conducted a public teleconference the evening of 26 March 2013. Meeting sites were provided in Dorval, PQ and Rochester, NY, to allow the public to interact with the Board in person. The Board provided toll free telephone access in French and English with simultaneous translation and remote access via webinar and prior posting of the slides on its website. Nine people attended in Rochester, three in Dorval, and 17 on the telephone lines, with representatives of boating, riparian and media organizations. Most expressed concern about low water levels.

The Board will conduct its next public teleconference the evening of 24 September 2013. To allow the public to interact with the Board in person, meeting sites will be provided in Kingston ON and Oswego, NY.

The Board continued its efforts to improve its dialogue with the public through its Communications Committee and Media Releases in addition to the individual Board Members' efforts to attend other meetings.

During the reporting period, the Communication Committee, individual Board Members, the Secretaries and the Regulation Representatives were actively engaged in outreach, information exchange and liaison with stakeholders throughout the Lake Ontario-St. Lawrence River system. Board members and staff responded to a number of inquiries and requests for interviews from the media and the general public concerning water level conditions and the effectiveness of the Board's strategies. Weekly postings on the Board's Facebook pages occur in both French and English. The comment interchange has reached over 650 people in a single week.

4 COMMUNICATIONS COMMITTEE REPORT

The Board continued to work with the Commission through the Communications Committee, to seek opportunities to improve communications with the public. The Board was provided communications assistance from Environment Canada and from the U. S. Army Corps of Engineers.

Communication activities during the reporting period included:

- Preparation of news releases: The Board issues media releases after each Board regulation decision, to provide the public with recent information on water level conditions and regulation strategies;
- Operation of the Board's 1-800 numbers: The Board continued to post weekly updates of levels and flows (In the U.S., the number is 1-800-833-6390, and in Canada the numbers are 1-800-215-8794 (English) and 1-800-215-9173 (French));
- Operation of the Board's enhanced website on the internet, launched at the end of July 2013, http://www.ijc.org/en_/islrbc/home . The website includes:
    - Slider photos indicating interests in the Lake Ontario – St. Lawrence River system
    - Weekly updates on water levels and outflows;
    - General information about the Board, its activities and its structure;
    - Announcements about the Board's outflow strategies and "related media" releases;

- A list of Frequently Asked Questions and responses
- Posting of the Board's semi-annual progress reports, meeting minutes, teleconference summaries, and data updates, and
- The Board's next semi-annual multi-city teleconference with the public.

- Weekly maintenance of the Boards English (www.Facebook.com/ISLRBC) and French (www.Facebook.com/CICFSL) Facebook pages.

The Board's Regulation Representatives sent weekly updates on Lake Ontario regulation and water level and outflow conditions, to over 300 e-mail subscribers. Stakeholders are encouraged to subscribe to this free service.

5 GAUGING COMMITTEE

The Board's St. Lawrence Committee on River Gauging monitors the Power Entities' program of maintaining gauges required for the Board's monitoring of water levels and flows. To ensure continued support from the U.S. National Ocean and Atmospheric Administration (NOAA) for the gauging audits and inspections, the Board wrote a letter dated 30 August 2013 to NOAA. NOAA has supported the gauging program of the Board since its inception.

5.1 Overview

The Board's Committee on River Gauging ensures the accuracy of flow estimates and water level measurements. This includes annual inspections of computational methods at each of the eight outflow structures and the 15 water level gauges used by the Board to monitor river conditions. Auditing of the Power Entities' data processing is also conducted under the direction of the Committee. The Inspection Team prepares an annual report to the Gauging Committee. Operation and maintenance of the water level gauges are performed by the Power Entities. The Gauging Committee held teleconferences on 4 June to discuss findings and recommendations from its recent audits and inspections and to obtain an update on the Power Entities' progress and work planning to address these, and on 10 July to discuss the draft St. Lawrence River Gauging Standard / Guidelines. The Guidelines document will be sent to the Board for review and approval.

5.2 Gauge Network Inspection

The Committee is responsible for annual inspections of the water level gauging network and provides the Board with an annual report on inspection results. The 76th (2012) report is currently in progress. The Gauging Committee will perform an annual inspection of the water level gauging network starting 15 October 2013.

5.3 Flow Auditing

Gauging Committee representatives conducted on-site reviews of each water use (flow through structures/water diversions around or through control structures) for the Lake Ontario-St. Lawrence River system, during a comprehensive review from 26-28 August 2013. As the Board is mandated by the Commission to ensure a full, accurate, and precise accounting of the total Lake Ontario outflow through the St. Lawrence River, such reviews have been deemed appropriate and necessary periodically. In the past, occasionally, data errors, omissions, or unauthorized water diversions have occurred, and supplementing monthly data inspections regarding water usage, these on-site interviews enable face-to-face communications regarding procedures and expectations with respect to reporting. The structures/facilities visited and/or discussed were the Moses-Saunders generating station, Long Sault Dam, Cornwall Canal, Alcoa Massena Diversion, Cornwall Water Supply, Raisin River Diversion, and Wiley-Dondero Canal as

part of the Seaway. Massena Water Treatment Plant was not visited during this annual inspection, due to plant scheduling conflicts. No major problems were found during the review and such comprehensive reviews were deemed unnecessary in future years unless and until there were any relevant changes to the procedures, equipment, or staff at each of the entities, or there were any changes on the inspection team.

5.4 Raisin River

The Raisin River Diversion was not used during the reporting period.

5.5 Flow Verification Field Measurements

Over the course of three days, 19-21 August 2013, flow measurements were conducted using Acoustic Doppler Current Profiler (ADCP) technology in the St. Lawrence River immediately downstream of the Moses-Saunders power dam. These measurements were conducted on behalf of the Coordinating Committee on Great Lakes Basic Hydraulic and Hydrologic Data by staff of Environment Canada's Water Survey and the U.S. Army Corps of Engineers, Detroit District. The purpose of the flow measurements was to measure the total flow in the St. Lawrence River immediately downstream of Moses-Saunders, in order to compare to estimated total flows through the turbines as reported by the Power Entities. The post-processing of the ADCP measurements has begun and results of the analysis should be available soon.

6 ICE SLUICE GATES STATUS

After the Commission requested the Board in July 2011 to review a proposal from New York Power Authority (NYPA) and OPG to remove from service the six ice gates at the Moses-Saunders generating station, the Board recommended that the proposal be approved in its letter to the Commission dated 15 September 2011. The Board will provide no further updates, subject to further requests for support from the Commission.

7 TURBINE UPGRADES

As of last December 2012, all NYPA units have been upgraded, and their upgrade program is now complete. A performance test was conducted on Unit 19 from 13-29 November 2012, and the consultant's report was forwarded to the corporation's White Plains, N.Y. office for review during the summer 2013. Prior to submitting final rating tables to the Board for their subsequent review and approval, reviews will be made by the Power Entities during the fall 2013.

8 ST. LAWRENCE SEAWAY REPORT

The Seaway navigation season for the Montreal-Lake Ontario Section officially opened 22 March 2013 with the first vessel, the m/v Baie St. Paul, transiting the St. Lambert Lock at 12:41 p.m.

.

9 HYDROPOWER PEAKING AND PONDING

By letter dated 13 October 1983, the Commission authorized OPG and NYPA to continue to carry out peaking and ponding operations at the St. Lawrence Project. The conditions governing peaking and ponding operations are specified in Addendum No. 3 to the Operational Guides for Regulation Plan 1958-D. On November 28, 2011, the Commission renewed the approval for a 5-year period, dated December 1, 2011 to November 30, 2016

Peaking operations were conducted throughout the reporting period. No ponding operations were conducted.

10 BOARD and COMMITTEE MEMBERSHIP CHANGES

After 28 years of service, M. André Carpentier stood down as a Canadian member and Mme Patricia Clavet was appointed effective 5 June 2013. There continues to be a vacancy on the Canadian Section of the Board.

The Canadian Chair appointed Mr. Rob Caldwell as the Canadian Regulation Representative 8 January 2013 and Mr. Jacob Bruxer his alternate.

The Operations Advisory Group saw a number of changes in the Canadian section after the retirements of Dr. Larry Cao of the Coast Guard, M. Luc Lefebvre of the St. Lawrence Seaway Management Corporation and M. Sylvain Robert of Hydro Quebec. Therefore, M. Mathieu Gagnon of the Canadian Coast Guard, and Ms. Shari Grady of the St. Lawrence Seaway Management Corporation (as alternate to M. Gagnon) joined the Operations Advisory Group 15 April 2013. M. Pierre-Marc Rondeau of Hydro Quebec joined the Operations Advisory Group 6 September 2013.

Respectfully submitted,

MEMBERS FOR THE UNITED STATES	**MEMBERS FOR CANADA**
BG M. BURCHAM, CHAIR	**P. MOREL, CHAIR**
J. BERNIER	**P. CLAVET**
T. BROWN	**J. FRAIN**
T. HULLAR	**P. YEOMANS**
F. SCIREMAMMANO	

`

Table 1 Monthly Mean Supplies to Lake Ontario

2013	Inflow from Lake Erie				Local Net Basin Supplies			Total Supplies			
	m^3/s	tcfs	Exceed. Prob.[1]	% of LTA [1]	m^3/s	tcfs	Exceed. Prob. [1]	m^3/s	tcfs	Exceed. Prob. [1]	% of LTA [1]
Mar	5550	196	58	97	1190	42	89	6740	238	82	86
Apr	5780	204	59	96	2580	91	51	8360	295	58	97
May	5820	206	74	93	1350	48	66	7170	253	74	90
Jun	5790	204	76	92	2400	85	2	8190	289	20	110
Jul	6070	214	56	98	800	28	32	6870	243	48	101
Aug	5960	210	57	98	210	7	43	6170	218	55	99
6-month Average	5830	206	64	96	1420	50	45	7250	256	60	97

[1] Based on period of record 1900-2012

Table 2 Provisional Precipitation over the Great Lakes and Lake Ontario Basins

2013	Great Lakes Basin			Lake Ontario Basin		
	mm (inches)[1]	% of LTA[2]	Exceed. Prob.[3]	mm (inches)[1]	% of LTA[2]	Exceed. Prob.[3]
Mar	33 (1.30)	60	91	22 (0.87)	32	98
Apr	102 (4.01)	157	2	87 (3.41)	118	28
May	88 (3.48)	114	28	73 (2.87)	92	55
Jun	90 (3.55)	110	35	121 (4.78)	151	8
Jul	101 (3.96)	126	12	87 (3.44)	107	36
Aug	83 (3.28)	104	42	74 (2.90)	94	56
6-month Average	83 (3.26)	113	8	77 (3.04)	101	46

[1] Provisional
[2] Based on period of record 1900-2012
[3] Based on period of record 1900-2008

Table 3 Average and Recorded Six-Month Net Total Supplies (Mar-Aug)

	Long-Term Average [1]		Recorded			**Recorded Below (-) or Above Average (+)**		
	(m^3/s)	(tcfs)	(m^3/s)	(tcfs)	**Exceed.** Prob. [1]	(m^3/s)	(tcfs)	Percent
Mar–Aug 04	7480	264	7810	276	35	330	12	4
Mar–Aug 05	7480	264	7360	260	55	-120	-4	-2
Mar–Aug 06	7480	264	7020	248	70	-460	-16	-6
Mar–Aug 07	7480	264	7140	252	65	-340	-12	-5
Mar–Aug 08	7480	264	7960	281	29	480	17	6
Mar–Aug 09	7480	264	8050	284	26	570	20	8
Mar–Aug 10	7480	264	7090	250	67	-390	-14	-5
Mar–Aug 11	7480	264	8410	297	14	930	33	12
Mar–Aug 12	7480	264	6620	234	84	-860	-30	-11
Mar–Aug 13	7480	264	7250	256	60	-230	-8	-3

[1] Based on period of record 1900-2012

Table 4 Summary of Outflow Deviations from Regulation Plan 1958-D Flow

Date 2013	Deviation (cms)	Dev. (cms-wks)	Acc. Dev. rounded (cms-wks)	Cum. Effect on Lake Ont. rounded (cm)	Reason for Deviation
Mar 22			**0**	**0**	
Mar 23-29	10 for 168 hrs	**10**	**10**	**-0.03**	Unintentional - minor operational deviation (ice flush)
Mar 30-Apr 5	-10 for 168 hrs	**-10**	**0**	**0**	Eliminate unintentional deviation from ice flushing
Apr 6-12	10 for 168 hrs	**10**	**10**	**-0.03**	Unintentional - minor operational deviation
Apr 13-19	10 for 168 hrs	**10**	**20**	**-0.06**	Unintentional - minor operational deviation
Apr 27-May 3	-200 for 168 hrs	**-200**	**-180**	**0.6**	To conserve water
May 4-10	-200 for 168 hrs	**-200**	**-380**	**1.2**	To conserve water
May 11-13 May 14-17	-200 for 59 hrs -200 for 78 hrs	**-70** **-93**	 **-540**	 **1.7**	To conserve water To conserve water
May 18-24	-200 for 168 hrs	**-200**	**-740**	**2.3**	To conserve water
May 26-31	-200 for 128 hrs	**-152**	**-890**	**2.8**	To conserve water
Aug 20-21	200 for 16 hrs	**19**	**-870**	**2.7**	Port of Montreal request

Table 5 - Lake Ontario Recorded and Pre-Project Levels and Outflows

2013	Lake Ontario Monthly Mean Water Levels (IGLD 1985) - meters (feet)			Lake Ontario Monthly Mean Outflow m^3/s (tcfs)		
	Recorded	Pre-project	Diff.	Recorded	Pre-project	Diff.
Mar	74.57 (244.65)	74.70 (245.08)	-0.13 (-0.43)	6450 (228)	6400 (226)	50 (2)
Apr	74.72 (245.14)	74.81 (245.44)	-0.09 (-0.30)	6410 (226)	6720 (237)	-310 (-11)
May	74.88 (245.67)	74.93 (245.83)	-0.05 (-0.16)	6410 (226)	6950 (245)	-540 (-19)
Jun	75.10 (246.39)	75.05 (246.23)	0.05 (0.16)	6600 (233)	7200 (254)	-600 (-21)
Jul	75.14 (246.52)	75.09 (246.36)	0.05 (0.16)	7470 (264)	7270 (257)	200 (7)
Aug	74.99 (246.03)	74.99 (246.03)	0.00 (0.00)	7480 (264)	7080 (250)	400 (14)

Table 6

Attendance at Meetings (22 March 2013 – 18 September 2013)

Board Member	Country	17 April	18 Sept
BG M. Burcham[1]	U.S.	X	
Mr. P. Morel[2]	Can.	X	X
Mr. J. Bernier	U.S.	X	X
Mr. T. Brown	U.S.	X	X
M. A. Carpentier[3]	Can.	X	
Ms. P. Clavet[4]	Can.		X
COL R. Peterson[5]	U.S.		X
Ms. J. Frain	Can.	X	X
Dr. T. Hullar	U.S.	X	X
Dr. F. Sciremammano, Jr.	U.S.		X
Mr. P. Yeomans	Can.	X	

Notes:
1. U.S. Co-Chair
2. Canadian Co-Chair
3. Canadian member until 5 June 2013
4. Canadian member after 4 June 2013
5. Alt. U.S. Co-Chair

Location of Meeting:
17 April 2013: Washington, DC, USA
18 September 2013: Burlington, ON, Canada

Figure 1: Monthly Net Basin Supplies to Lake Ontario

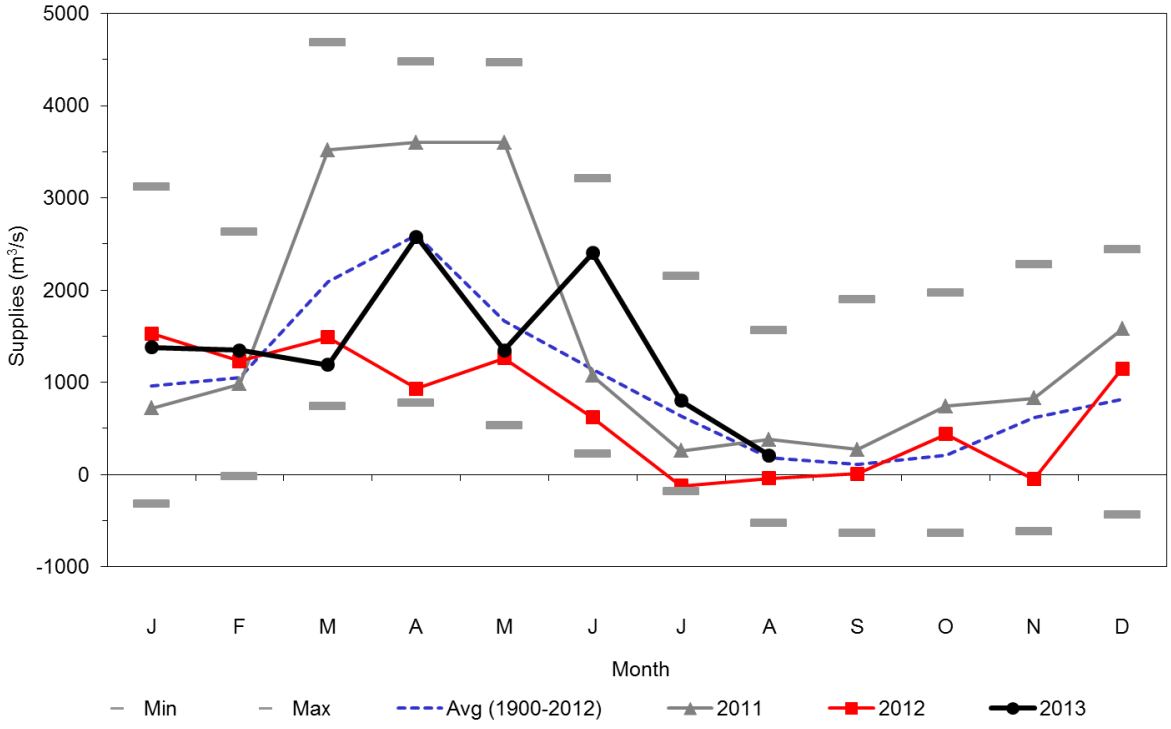


Figure 2: Monthly Net Total Supplies to Lake Ontario

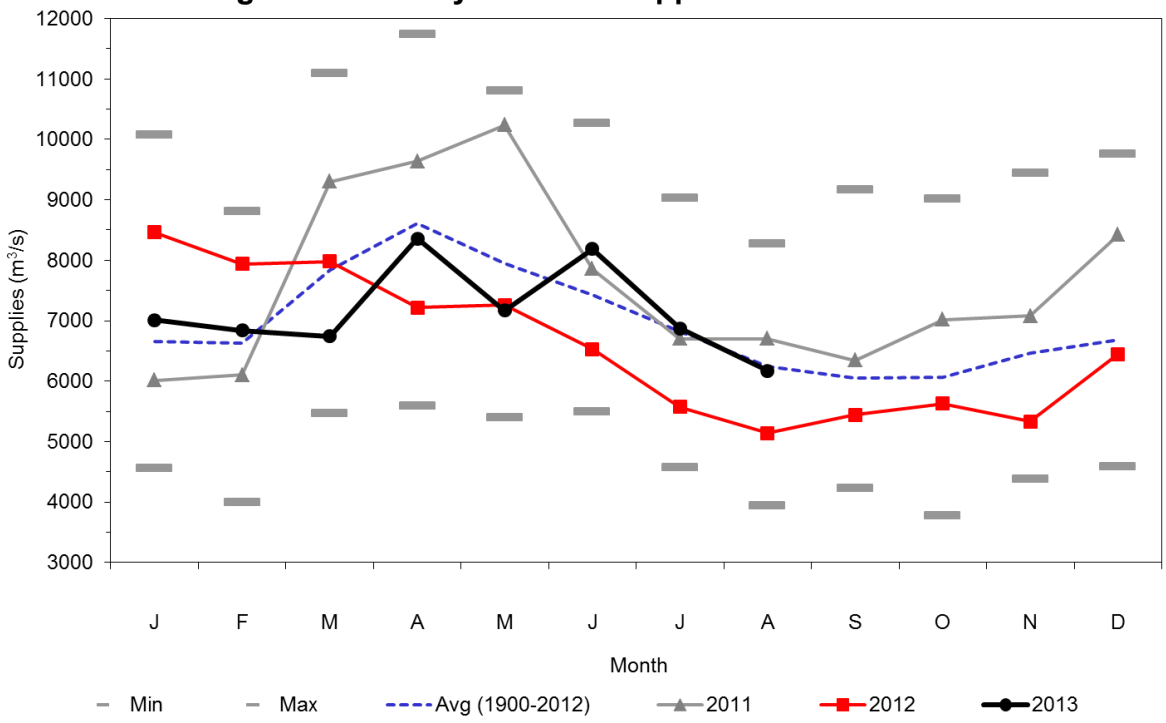


Figure 3: Daily Ottawa River Flow @ Carillon

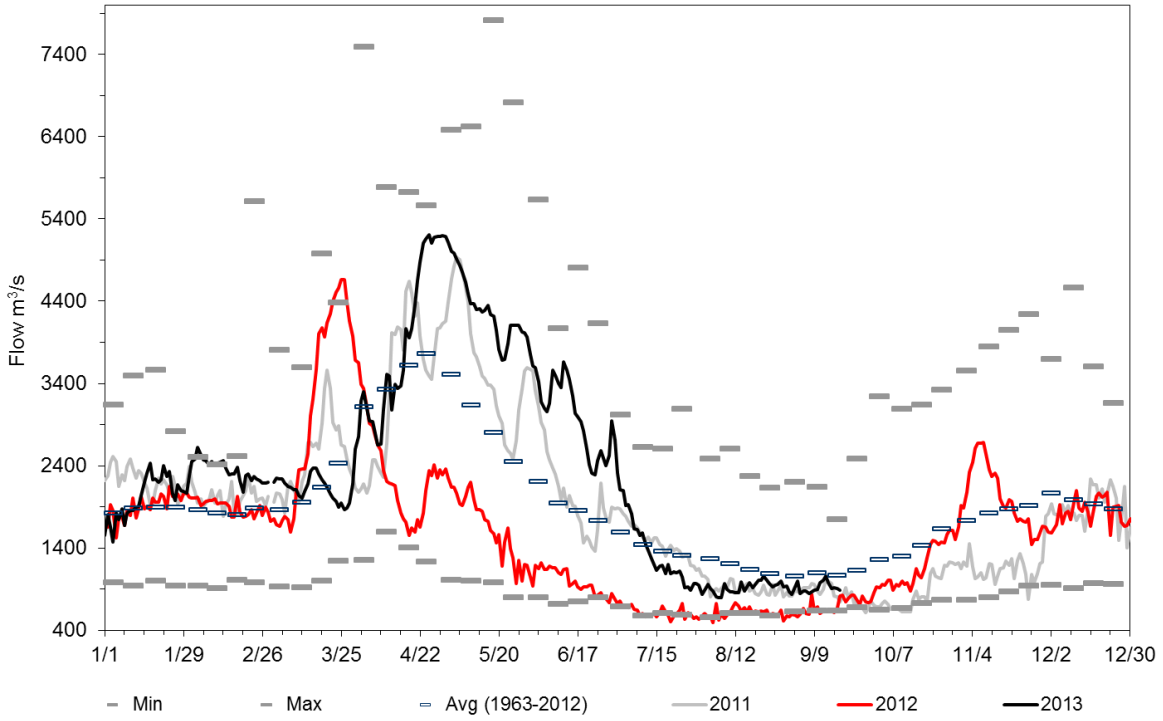


Figure 4: 2013 Lake Ontario Daily Outflows (m³/s)

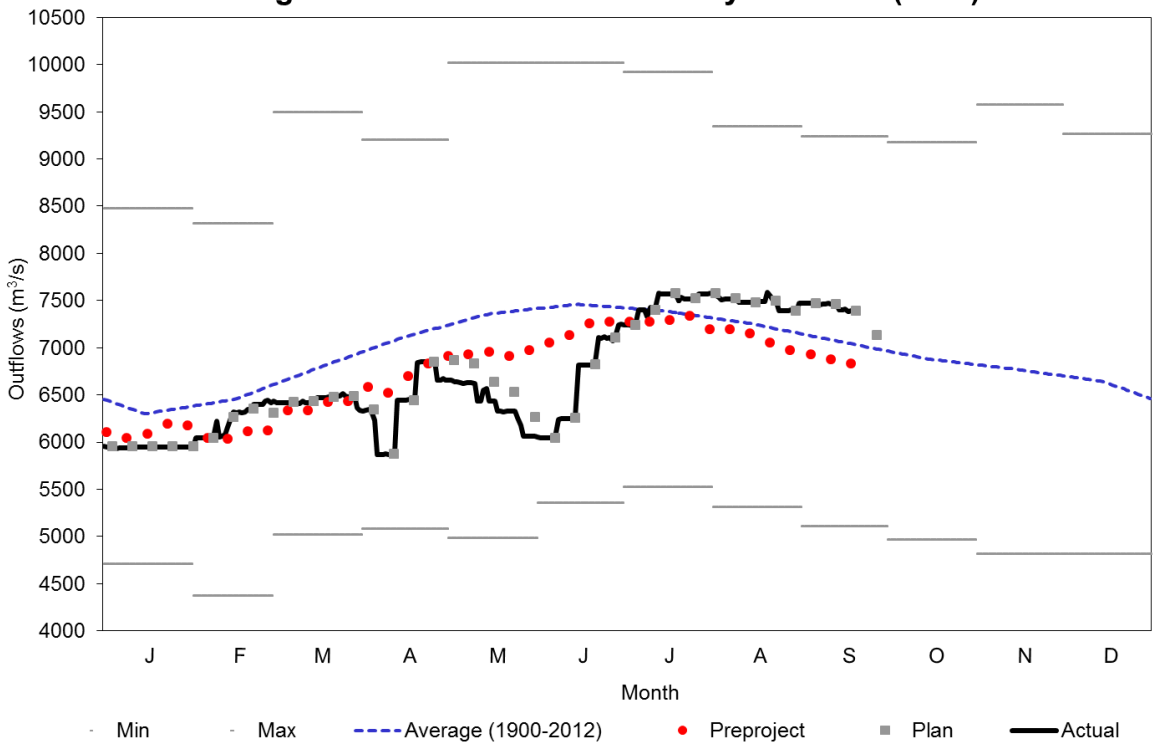


Figure 5: Daily Lake Ontario Levels in comparison with previous years

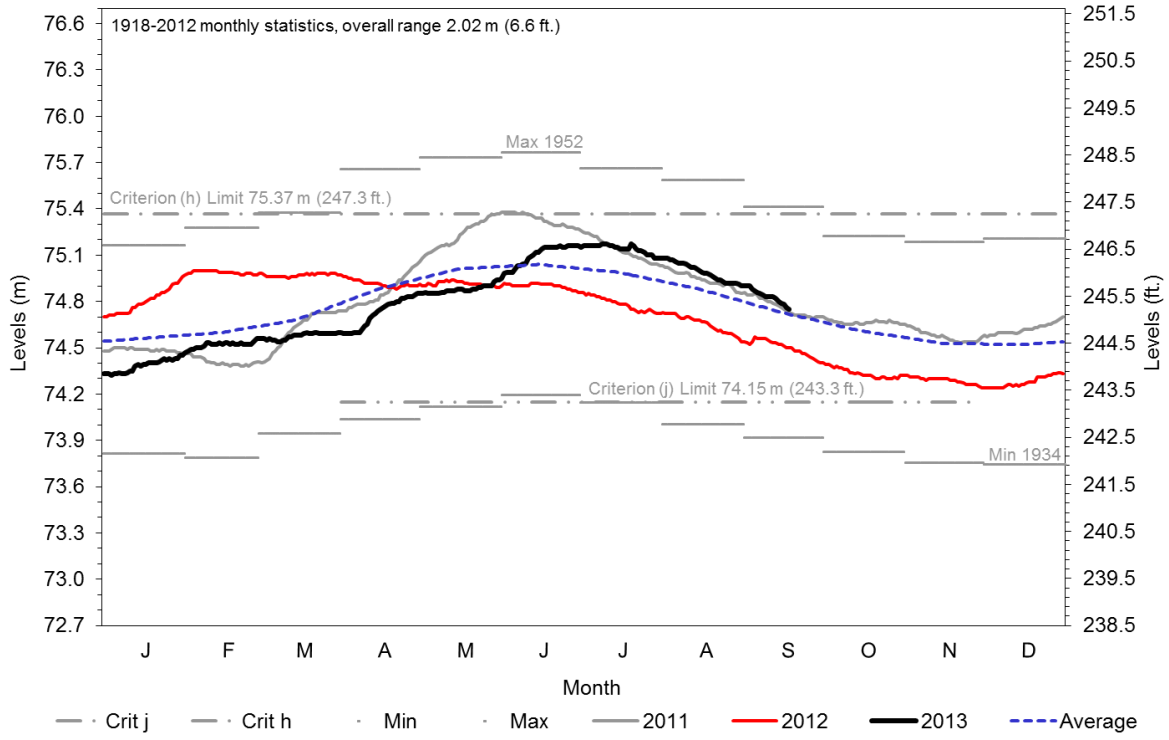


Figure 6: 2013 Actual/Preproject/Plan Levels (m)

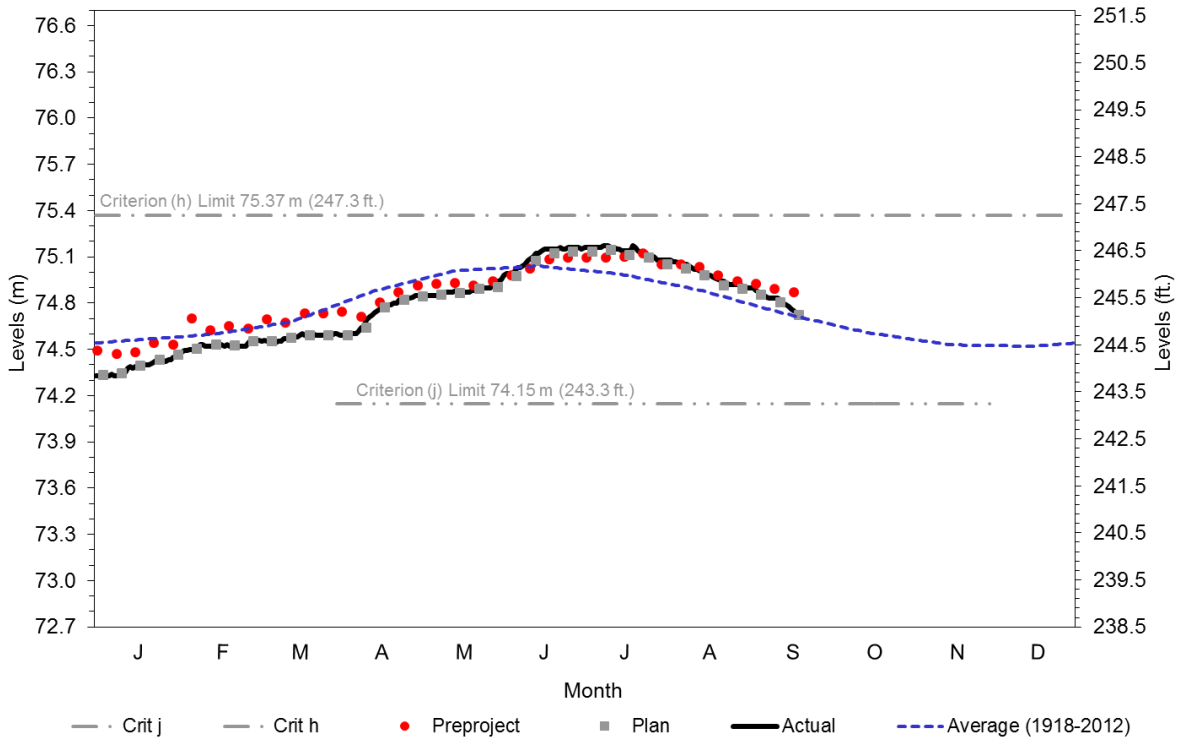


Figure 7: Daily Lake St. Louis Levels @ Pointe-Claire

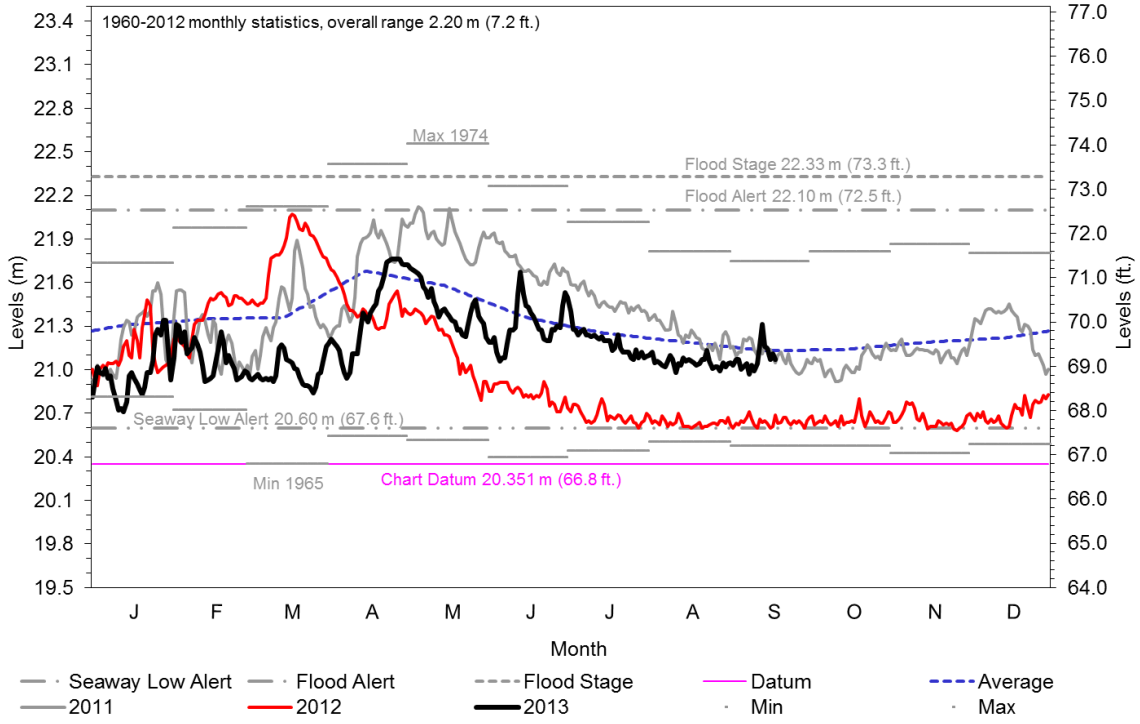


Figure 8: Daily Port of Montreal Levels @ Jetty #1