ONE HUNDRED AND TWENTY-SECOND PROGRESS REPORT

to the

INTERNATIONAL JOINT COMMISSION

by the

INTERNATIONAL ST. LAWRENCE RIVER BOARD OF CONTROL

Covering the Period

MARCH 27, 2014 THROUGH SEPTEMBER 23, 2014

SEPTEMBER 23, 2014

COVER PHOTO: A few Board Members and Associates at the upstream deck of the Moses-Saunders dam (taken by Brent Morton, 23 September 2014)

EXECUTIVE SUMMARY

REGULATION STRATEGY AND RESULTS

Lake Ontario received below average water supplies during the month of March and above average thereafter, although within the range of those used in the design of the regulation plan, Plan 1958-D. Lake Ontario levels began the reporting period 18 cm (7 in) below average, reaching average in mid-April and continuing above average until the reporting date, 23 September 2014. Water levels on Lake Ontario peaked earlier than usual, on 24 May 2014 at 75.20 m (246.72 ft), 17 cm (6.7 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 end of March this year was to maintain Lake Ontario outflows at plan-specified flows whenever possible, given the need to restore the slight amount of water reduced on Lake Ontario. On 27 March 2014, the actual level was 3 mm (0.12 in) lower than the level that would have been if Plan specified outflows had been followed previously. The Board varied the rate at which the water was released in consideration of ice, Ottawa River outflows and water levels in the Montreal area and downstream, preventing unduly high levels on Lake St. Lawrence. During the freshet from the Ottawa River, daily water levels in Lake St. Louis at Pointe-Claire exceeded the flood alert level briefly five times, but never reached the flood stage level. The maximum amount of storage on Lake Ontario during the operations to control flooding downstream reached 3.9 cm (1.5 in) on 7May 2014. With the low over-discharges, outflows were returned to those specified by the regulation plan on 2 August 2014. Outflows were further increased for 24 hours to assist the entry of one vessel to the Port of Montreal in early July.

On 23 September 2014, the level on Lake Ontario was 2 cm (0.8 cm) above average. The level was 0.1 cm (0.04 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 (27 March to 23 September 2014) 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 one meeting to obtain an update on the Power Entities' work plan for gauging equipment and to discuss recommendations from its recent audits and inspections. The three Great Lakes Boards wrote a letter dated 24 April 2014 to the Commission requesting support for the establishment of an Adaptive Management Committee, received the reply 19 September 2014 in time for discussion at the Board's 23 September meeting. The Commission appointed Mr. Marc Hudon and Mr. Robert Campany to the Board on 2 June 2014, upon the departure of long-serving members Mr. Jim Bernier, Mr. Peter Yeomans and Dr. Ted Hullar. After many years of service, Mr. John Kangas retired as secretary to the U.S. section of the Board, replaced by Mr. Kyle McCune. Also, a new U.S. Regulation Representative and a new Operations Advisory Group member joined during the reporting period.

COMMUNICATION ACTIVITIES

A teleconference/webinar was held on16 September 2014. The Board also posted the 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, with two new Board Members joining in the summer. Environment Canada and the U. S. Army Corps of Engineers provided additional staff resources to assist the communications efforts of the Board. 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 its Facebook site.

An appendix provides the background material that was repeated in the semi-annual reports of the Board to the Commission prior to 2010. Providing the material in this manner allows the report to be focused 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.

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1.1 Lake Ontario Basin - Net Basin Supply

The local net basin supplies (NBS) to Lake Ontario (see appendix for definition) were below average in March, reached a record high in April, and continued above average in May, June, July and August. Monthly NBS values for March to September and for the total six-month period are provided in Table 1. Over the six-month period, supplies were above normal and have been exceeded 6% of the time. Figure 1 shows the long-term average monthly NBS for the period 1900 to 2013 and the supplies so far for 2014. Also shown, for comparison purposes, are the monthly NBS for 2012 and 2013. 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 over the Lake Ontario basin was below average in March, but above average in April, May, June, July and August. The total amount of this basin's precipitation in the six-month reporting period was 538 mm (21.2 in.), which was well above average and has been only exceeded 12% of the time. Total precipitation for the entire Great Lakes basin for the six-month period was 480 mm (18.9 in.), which was also above average, having been exceeded 18% 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 end of March and rising above average in early May, its flow to Lake Ontario also remained about average through August. The six-month average outflow would be expected to be exceeded 44% of the time.

1.4 Lake Ontario – Net Total Supply

The monthly net total supplies to the Lake (see appendix for definition) 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 below average in March and above average in April, May, June, July and August. Overall, the total supply was 108% of average during this reporting period and has been exceeded 24% of the time.

1.5 Ottawa River Basin

Figure 3 shows the Ottawa River flows, which rose from well-below average values at the end of March to well-above average in late April, before falling to average by mid-June, and ending the reporting period slightly above average. During the Ottawa River freshet period, which occurred over a prolonged period from early April to late May, outflows from Lake Ontario were frequently reduced to prevent high water levels in Lake St. Louis, but were kept as high as possible to also reduce high water levels on Lake St. Lawrence and limit the amount of excess water stored 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 in the Lake Ontario – St. Lawrence River system, the Board assessed conditions throughout the year, 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. The strategies for the reporting period, and their rationale, are

available on the Board's website: http://www.ijc.org/en_/islrbc/News_Releases. Figure 4 shows the actual Lake Ontario outflows for the year to 23 September 2014 in comparison to the long-term average, 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 to restore water while responding to critical needs, such as ice formation, shipping requirements and the Ottawa River spring freshet. After storing a slight amount of water during the Ottawa River freshet, the Board slowly released water to return to lake levels had Plan-specified outflows been followed continuously.

2.2 Deviations from Regulation Plan 1958-D

Table 4 summarizes the Board's discretionary deviations during the reporting period. On 27 March 2014, the Lake Ontario level was 3 mm (0.12 in) below the level had flows been those prescribed by Plan 1958-D previously. At its March meeting, the Board decided to follow the plan, restoring water to Lake Ontario as soon as possible, unless critical needs required adjustments. Outflows less than plan-specified were released beginning 27 March; however, once the lake level was restored, further outflow restrictions for ice management requirements increased lake levels to above those prescribed by the Plan. Outflows then continued modestly above plan-specified flows to release stored water on Lake Ontario until April when the Ottawa River freshet started and the outflow was reduced to prevent flooding at Lake St. Louis. As a result of the Board's actions, up to 3.9 cm (1.5 in) of additional water was stored on Lake Ontario. On 8 July, outflows were further increased for 24 hours to assist a ship arriving into the Port of Montreal. By 2 August 2014, weekly average outflows returned to Plan-specified rates. At the Board's 23 September meeting, it decided to continue to follow Plan 1958-D, except to meet any critical needs. The Board planned to assist with boat haul-out in Lake St Lawrence by temporarily reducing outflows to increase levels there on Saturday, 4 October 2014.

2.3 Iroquois Dam Operations

The gates at Iroquois Dam were temporarily lowered beginning on 16 April 2014 to help lower high Lake St. Lawrence levels. Gates were then raised completely out of the water on 17 April 2014. A gate operation initiated the morning of 2 May 2014 was quickly cancelled following a flow increase later that day, and the gates were again raised completely out of the water. .

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 levels of Lake Ontario are shown in Figure 5. For comparison purposes, the daily levels of 2012, 2013 and 2014 to 23 September 2014are shown. During this period, levels started below average and quickly rose above average in April, reaching an early peak level of 75.20 (246.72 ft) in late May 2014. At the end of the period, the level was at 74.72 m (245.14 ft.), 2 cm (0.8 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 been occurred under pre-project conditions (that is, the levels and outflows that would have occurred had regulation not been undertaken). A summary of this comparison for the reporting period of 27 March to 23 September 2014 is given in Table 5. This shows that Lake Ontario ranged from 24 cm (9.44 in) to 29 cm (11.4 in) lower than it would have been without regulation. A comparison of the daily levels to long-term average, and weekly computed Plan 1958-D levels is also shown in Figure 6.

Lake St. Lawrence

The water levels of Lake St. Lawrence started the reporting period below average during a period of heavy ice cover, and then fluctuated about the long-term average through April, May and early June before falling below. Levels were below average in July and August, due primarily to relatively high outflows from the lake. On 23 September 2014, the water level was 72.96 m (239.37 ft), 21 cm (8.3 in) below the long-term average.

2.4.2 Downstream

Lake St. Francis

Daily water levels at Summerstown on Lake St. Francis were near average until mid-June, when levels rose above average. Daily mean levels were above the Seaway Low Alert level throughout the reporting period.

Lake St. Louis

After reaching the flood alert levels five times in April and May, the daily water levels on Lake St. Louis remained above average (based on the period 1960 through 2013) through to 23 September 2014. 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 17 April at 8.28 m (27.2 ft), 77 cm (2.5 ft) higher than the long-term average (1967-2013). Water levels declined gradually with a number of brief rises that occurred during rain events, falling below average in July. 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, from 27 March to 23 September 2014, the Board held meetings on 29 April in Washington, DC and on 23 September in Cornwall, 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/webinar the evening of 16 September 2014 to allow the public to interact with the Board. 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. From three to nine people participated on the webinar and telephone lines. The one concern heard was for an update on a new regulation plan.

The Board will conduct its next public teleconference the evening of 17 March 2015 to allow the public to interact with the Board.

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 averages 150 people in a single week, with less interest when levels are near average.

3.3 Board and Committee Membership Changes

As U.S. Chair BG M. Burcham rotated to a new position 30 May 2014 and Col. R. Peterson retired from active duty 3 July, Ms. D. Lee became the alternate U.S. chair 3 July 2014 until the upcoming appointment of BG R. Kaiser as U.S. Chair, 26 September 2014. After many years of service, the terms of Mr. J. Bernier, Dr. T. Hullar and Mr. P. Yeomans were not renewed. Mr. R. Campany was appointed to the U.S. Section and M. M. Hudon to the Canadian Section on 2 June. A vacancy on the Canadian Section remains and now one exists on the U.S. Section of the Board.

After 20 years of dedicated service, Mr. J. Kangas retired as Secretary of the U.S. Section in April and was replaced by Mr. K. McCune. LTC Jansen replaced LTC Beaudoin, U.S. Regulation Representative, in June.

Mr. A. Boulais replaced Mr. B. Whitcomb of NYPA as Operations Advisory Group Member and Gauging Committee Member on 10 July 2014.

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. Two members of the Board, Dr. Frank Sciremammano from U.S. and Mr. Marc Hudon from Canada, joined the Communications Committee to replace the departing Board members, Dr. Ted Hullar and Mr. Peter Yeomans. 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 website on the internet, 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 teleconference/webinar with the public.
- Weekly updates of the Board's English (www.Facebook.com/ISLRBC) and French (www.Facebook.com/CICFSL) Facebook pages, and frequent interaction with the public through the Facebook page.

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 ADAPTIVE MANAGEMENT COMMITTEE

The three Great Lakes Boards of Control proposed the establishment of an Adaptive Management Committee (AMC) of technical experts in a joint letter dated 24 April 2014 to the Commission and requested their concurrence and support to adopt adaptive management methods as part of an on-going review and evaluation of regulation plans, as well as to implement the outstanding science of past studies. The Boards wish to evaluate regulation plan performance on an ongoing basis over time with regard to a broad range of environmental and economic indicators. The Boards see benefits from the above proposed activities and would like to establish the AMC as soon as practicable. The Boards will establish priorities, scope, and makeup of the AMC. Full funding has not been confirmed and is limited to current resources at this time. The Boards asked the IJC for help identifying and leveraging further funding opportunities. In its letter of response, dated 19 September 2014, the Commission granted their support and provided a draft directive. The Board expressed its pleasure at the Commission's response at its meeting on 23 September 2014 in Cornwall and are forging ahead with the establishment of the AMC structure and objectives.

6 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.

6.1 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, held this year from 9 to 17 June. 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 and the Canadian Hydrographic Service. The Gauging Committee held a teleconference on 22 July 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. The Committee has scheduled a meeting on September 25

to discuss the draft St. Lawrence River Gauging Standard / Guidelines. Once complete, the Guidelines document will be sent to the Board for review and approval.

6.2 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 77th (2013) report is currently in progress.
The Gauging Committee performed an annual inspection of the water level gauging network in June 2014. Generally, the network was found to be well maintained, though there were several problems uncovered and numerous past concerns found that were not acted upon. The majority of issues discovered by the inspection team in 2014 have already been addressed; however, a number of issues identified during previous inspections remain outstanding. The Gauging Committee provided the Board with an "Action Item Update" in August to outline all outstanding action items, the priority of each action item, and expected completion timeframe.

6.3 Raisin River

The Raisin River Diversion was opened from 8 July to 21 August. Flowrates ranged from 0 to 0.1 m^3/s (4 cfs).

6.4 Flow Verification Field Measurements

In 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 is complete and a final report was provided 26 May 2014. Results show a very minor general bias towards under-reporting of flows, but likely within the uncertainty in measurement error. More tests were recommended, especially during morning and evening peaking transitions.

7 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 decommissioning work has yet to start.

8 TURBINE UPGRADES

The upgrade of all NYPA units were completed in 2012, and index testing was completed of all NYPA units in mid-2014. The data is currently being analyzed by the Power Entities. Upon completion, new rating tables will be generated and submitted to the Board for their subsequent review and approval.

9 ST. LAWRENCE SEAWAY REPORT

The Seaway navigation season for the Montreal-Lake Ontario Section officially opened 31 March 2014 with the first vessel, the Charlotte Theresa, transiting St. Lambert Lock at 8:30 a.m.

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10 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.

11 ICE BOOM INSTALLATION

The Seaway Corporations (SLSMC and SLSDC) met with the Power Entities (OPG and NYPA) to discuss some of the issues that have been encountered when closing the ice booms with ice present in the river. They reported to the Board on 26 August in writing and orally at the 23 September 2014 meeting. These entities agreed to assemble a group of managers to communicate annually during the Seaway closing period to discuss information regarding ship movements, weather forecasts, ice boom installation schedule and available assets in the system. This group will meet on a regular basis starting prior to the time that the Seaway Corporation's announce their closing date and the frequency of the meetings will be dictated primarily by the climatic conditions.

A request for ice breaking services for the Seaway was submitted in August 2014 by the SLSMC and the SLSDC for the opening of the 2015 Navigation Season. Prior to that submission, the SLSMC met with the Canadian Coast Guard and discussed the Power Entities' need for assistance for boom deployment at the Seaway closing and how such a request could be made.

There was a suggestion that the Commission could lend political support if necessary by emphasizing to the Minister of Fisheries and Oceans the importance of the installation of ice booms at the Seaway closing to produce a stable ice cover on the St Lawrence River to facilitate unrestricted Lake Ontario outflows. Assistance from the Canadian Coast Guard to break ice in the areas of the booms may be required in some years to accomplish this.

Respectfully submitted,

MEMBERS FOR THE UNITED STATES	**MEMBERS FOR CANADA**
_____	_____
BG KAISER, CHAIR	**P. MOREL, CHAIR**
_____	_____
T. BROWN	**P. CLAVET**
_____	_____
R. CAMPANY	**J. FRAIN**
_____	_____
F. SCIREMAMMANO	**M. HUDON**

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Table 1
MONTHLY MEAN SUPPLIES TO LAKE ONTARIO

2014	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	5690	201	50	99	1220	43	88	6910	244	77	88
Apr	6110	216	42	102	4510	159	<1	10620	375	4	123
May	6350	224	45	101	2440	86	13	8790	310	24	111
Jun	6230	220	52	99	1620	57	16	7850	277	31	106
Jul	6360	225	39	103	1070	38	14	7430	262	23	109
Aug	6260	221	38	103	730	26	7	6990	247	16	112

(1) Based on period of record 1900-2013

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

	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	26 (1.04)	47	96	31 (1.22)	46	96
Apr	78 (3.09)	120	22	108 (4.26)	146	6
May	85 (3.33)	110	32	100 (3.94)	127	25
Jun	109 (4.30)	133	12	102 (4.00)	128	23
Jul	89 (3.51)	111	32	113 (4.44)	140	10
Aug	93 (3.68)	116	24	84 (3.32)	106	40

(1) Provisional
(2) Based on period of record 1900-2013
(3) Based on period of record 1900-2010

Table 3 Average and Recorded Six-Month 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 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	7230	255	61	-250	-9	-3
Mar–Aug 14	7480	264	8100	286	24	620	22	8

[1] Based on period of record 1900-2013.

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

Date 2014	Deviation (cms)	Dev. (cms-wks)	Acc. Dev. rounded (cms-wks)	Cum. Effect on Lake Ont. rounded (cm)	Reason for Deviation
Mar 27			**110**	**-0.3**	
Mar 27	10 for 24 hrs	**1**			Unintentional - minor operational deviation
Mar 28	20 for 24 hrs	**3**	**120**	**-0.4**	Unintentional - minor operational deviation
Mar 29-31	110 for 72 hrs	**47**			Port of Montreal request
Apr 1-4	-120 for 96 hrs	**-69**	**100**	**-0.3**	To restore water
Apr 5-8	-100 for 96 hrs	**-57**			To restore water
Apr 9-10	-460 for 48 hrs	**-131**			Ice Management
Apr 11	-60 for 24 hrs	**-9**	**-100**	**0.3**	Ice Management
Apr 12	-250 for 14 hrs	**-21**			Pte. Claire approaching Flood Alert
Apr 12	-650 for 10 hrs	**-39**			Pte. Claire above Flood Alert
Apr 13-14	-1350 for 36 hrs	**-289**			Pte. Claire above Flood Alert
Apr 14	-1050 for 6 hrs	**-38**			High Lake St. Lawrence level
Apr 14-15	-750 for 20 hrs	**-89**			High Lake St. Lawrence level
Apr 15	-550 for 10 hrs	**-33**			High Lake St. Lawrence level
Apr 16	-1050 for 14 hrs	**-88**			Pte. Claire rising
Apr 16-17	-1250 for 24 hrs	**-179**			Pte. Claire rising
Apr 17	-750 for 10 hrs	**-45**			Pte. Claire level high
Apr 18	-450 for 24 hrs	**-64**	**-980**	**3.0**	High Lake St. Lawrence level
Apr 19	-390 for 24 hrs	**-56**			High Lake St. Lawrence level
Apr 19	30 for 24 hrs	**4**	**-1030**	**3.2**	Unintentional - minor operational deviation
Apr 26-28	190 for 72 hrs	**81**			Reduce stored water
Apr 29-May 1	-160 for 60 hrs	**-57**			OPG bank outage
May 1	-460 for 6 hrs	**-16**			Pte. Claire approaching Flood Alert
May 1-2	-910 for 20 hrs	**-108**			Pte. Claire above Flood Alert
May 2	-510 for 10 hrs	**-30**	**-1160**	**3.6**	Pte. Claire level high
May 3	-360 for 24 hrs	**-51**			Pte. Claire level high
May 3	10 for 24 hrs	**1**			Unintentional - minor operational deviation
May 4	-150 for 24 hrs	**-21**			Pte. Claire level high
May 4	10 for 24 hrs	**1**			Unintentional - minor operational deviation
May 5-6	-10 for 48 hrs	**-3**			Unintentional - minor operational deviation
May 7	-160 for 24 hrs	**-23**			Pte. Claire above Flood Alert
May 7	20 for 24 hrs	**3**			Unintentional - minor operational deviation
May 9	140 for 24 hrs	**20**	**-1230**	**3.8**	Reduce stored water
May 10	80 for 14 hrs	**7**			Reduce stored water
May 10-12	180 for 58 hrs	**62**			Reduce stored water
May 13-15	-60 for 72 hrs	**-26**			OPG bank outage
May 16	180 for 24 hrs	**26**	**-1160**	**3.6**	Reduce stored water
May 17	120 for 13 hrs	**9**			Reduce stored water
May 17-20	-280 for 72 hrs	**-120**			Pte. Claire rising-approaching Flood Alert
May 23	120 for 24 hrs	**17**	**-1250**	**3.9**	Reduce stored water
May 24-25	10 for 38 hrs	**2**			Reduce stored water
May 24-25	40 for 38 hrs	**9**			Unintentional - minor operational deviation
May 25-30	210 for 130 hrs	**163**	**-1080**	**3.3**	Reduce stored water
May 31-Jun 6	180 for 163 hrs	**175**			Reduce stored water
May 31-Jun 6	-10 for 163 hrs	**-10**			Unintentional - minor operational deviation
Jun 6	-270 for 6 hrs	**-10**	**-920**	**2.8**	NYPA bank outage
Jun 7	-240 for 10 hrs	**-14**			NYPA bank outage
Jun 7-13	110 for 153 hrs	**100**			Reduce stored water
Jun 13	-690 for 5 hrs	**-21**	**-860**	**2.7**	NYPA bank outage
Jun 14	-880 for 10 hrs	**-52**			NYPA bank outage
Jun 14	80 for 10 hrs	**5**			Unintentional - minor operational deviation
Jun 14-17	-80 for 78 hrs	**-37**	**-940**	**2.9**	Unintentional – regulation error

Table 4 - Summary of Outflow Deviations from Regulation Plan 1958-D Flow – CONT'D.

Date 2014	Deviation (cms)	Dev. (cms-wks)	Acc. Dev. rounded (cms-wks)	Cum. Effect on Lake Ont. rounded (cm)	Reason for Deviation
Jun 21-26	220 for 144 hrs	**189**			Reduce stored water
Jun 27	370 for 24 hrs	**53**	**-700**	**2.2**	Reduce stored water
Jun 28-Jul 4	140 for 168 hrs	**140**	**-560**	**1.7**	Reduce stored water
Jul 5-8	280 for 87 hrs	**145**			Reduce stored water
Jul 8-9	580 for 24 hrs	**83**			Port of Montreal request
Jul 9-11	280 for 57 hrs	**95**	**-240**	**0.7**	Reduce stored water
Jul 12-18	60 for 168 hrs	**60**	**-180**	**0.6**	Reduce stored water
Jul 19-25	100 for 168 hrs	**100**	**-80**	**0.2**	Reduce stored water
Jul 26-Aug 1	80 for 168 hrs	**80**	**80**	**0.0**	Reduce stored water
Aug 30-Sep 1	160 for 72 hrs	**69**			To meet weekly avg. flow
Sep 2-4	-210 for 72 hrs	**-90**			OPG bank outage/NYPA unit outage
Sep 5	160 for 24 hrs	**23**	**0**	**0.0**	To meet weekly avg. flow
Sep 6-7	230 for 48 hrs	**66**			To meet weekly avg. flow
Sep 8-12	-90 for 120 hrs	**-64**	**0**	**0.0**	NYPA bank outage/OPG unit outage

Provisional

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

2014	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	74.55 (244.58)	74.84 (245.54)	-0.29 (-0.96)	6940 (245)	6480 (229)	460 (16)
Apr	74.83 (245.50)	75.10 (246.39)	-0.27 (-0.89)	6890 (243)	7310 (258)	-420 (-15)
May	75.14 (246.52)	75.38 (247.31)	-0.24 (-0.79)	7830 (277)	7870 (278)	-40 (-1)
Jun	75.17 (246.62)	75.42 (247.44)	-0.25 (-0.82)	8180 (289)	7950 (281)	230 (8)
Jul	75.09 (246.36)	75.40 (247.37)	-0.31 (-1.01)	8320 (294)	7900 (279)	420 (15)
Aug	74.96 (245.93)	75.32 (247.11)	-0.36 (-1.18)	8070 (285)	7730 (273)	340 (12)

Table 6

Attendance at Meetings (27 March 2014 – 23 September 2014)

Board Member	Country	29 April	23 Sept
BG M. Burcham[1]	U.S.	-	-
Mr. P. Morel[2]	Can.	X	X
Mr. J. Bernier[3]	U.S.		-
Mr. T. Brown	U.S.	X	X
Mr. R. Campany[4]	U.S.	-	X
M. A. Carpentier[5]	Can.	X	-
Ms. P. Clavet[6]	Can.	-	X
Ms. J. Frain	Can.	X	X
M. M. Hudon[7]	Can	-	X
Dr. T. Hullar[8]	U.S.	X	-
Ms. D. Lee[9]	U.S.	-	X
COL R. Peterson[10]	U.S.	X	-
Dr. F. Sciremammano, Jr.	U.S.	X	X
Mr. P. Yeomans[11]	Can.	X	-

Notes:
1. U.S. Co-Chair, until 30 May 2014
2. Canadian Co-Chair
3. U.S. member until 31 May 2014
4. U.S. member after 2 June 2014
5. Canadian member alternate for Ms. P. Clavet
6. On Sick leave until 3 July 2014
7. Canadian member after 2 June 2014
8. U.S. member until 31 May 2014
9. Alt. U.S. Co-Chair after 3 July 2014
10. Alt. U.S. Co-Chair until 3 July 2014
11. Canadian member until 31 May 2014

Location of Meeting:
29 April 2014: Washington, DC, USA
23 September 2014: Cornwall, ON, Canada

Figure 1: Monthly Net Basin Supplies to Lake Ontario

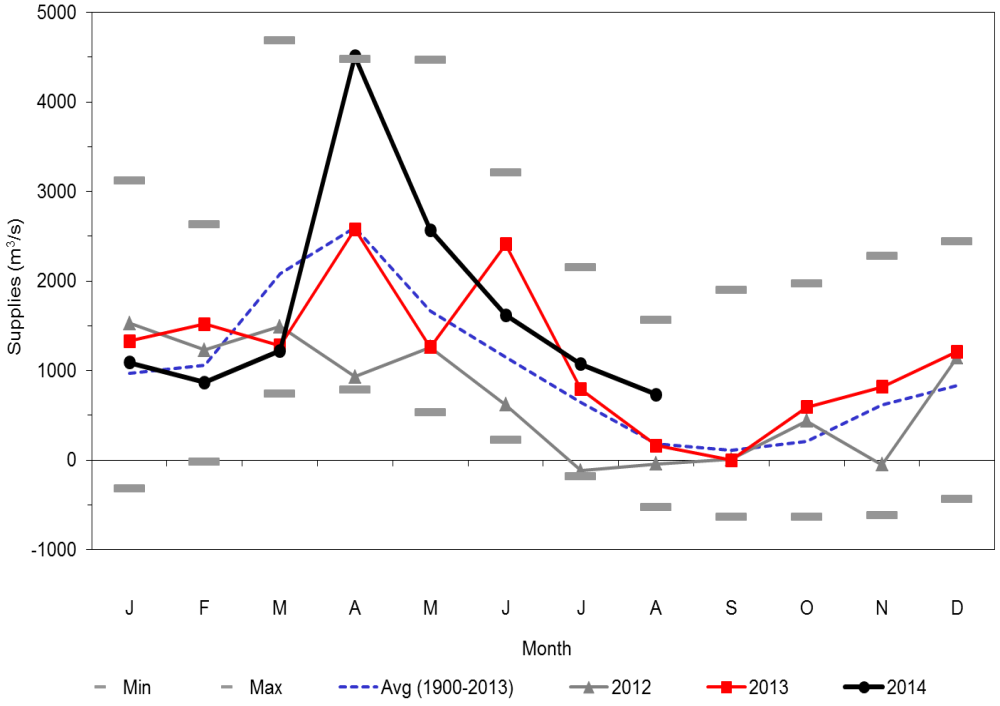

Figure 2: Monthly Net Total Supplies to Lake Ontario

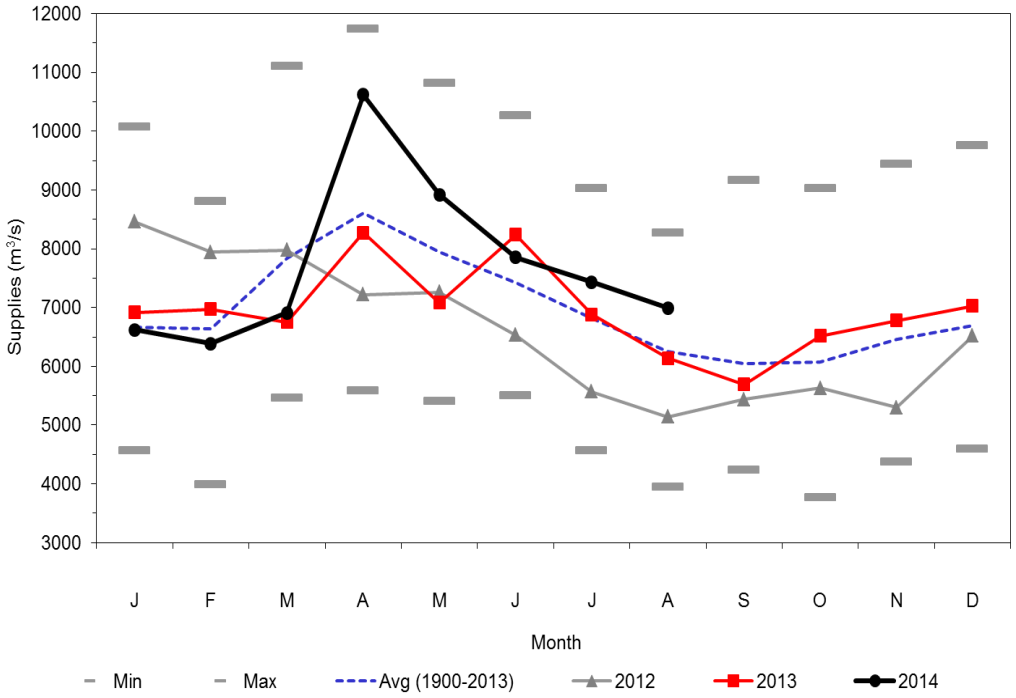

Figure 3: Daily Ottawa River Flow @ Carillon

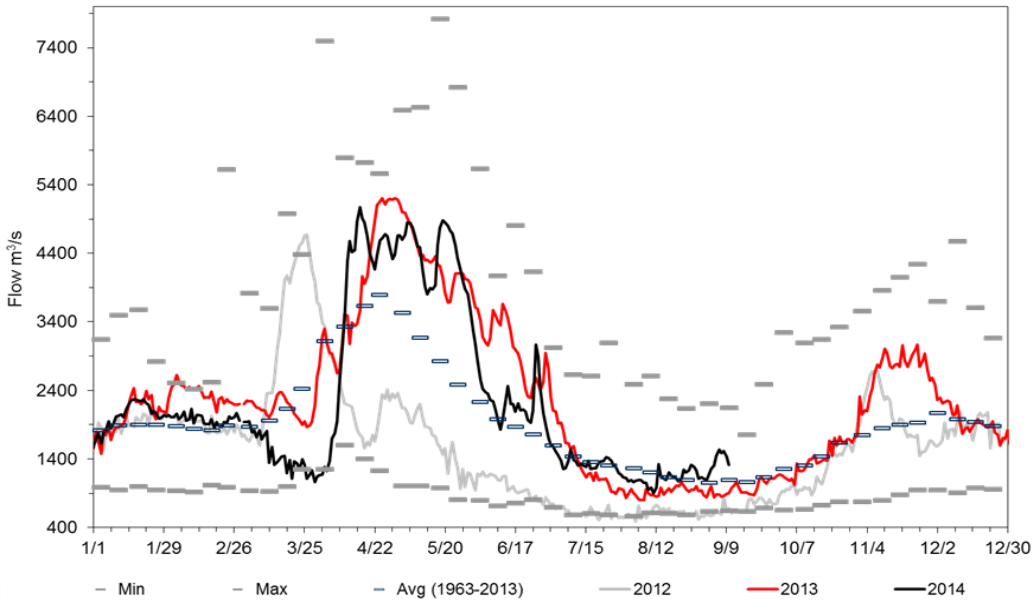

Figure 4: Lake Ontario Daily Outflows

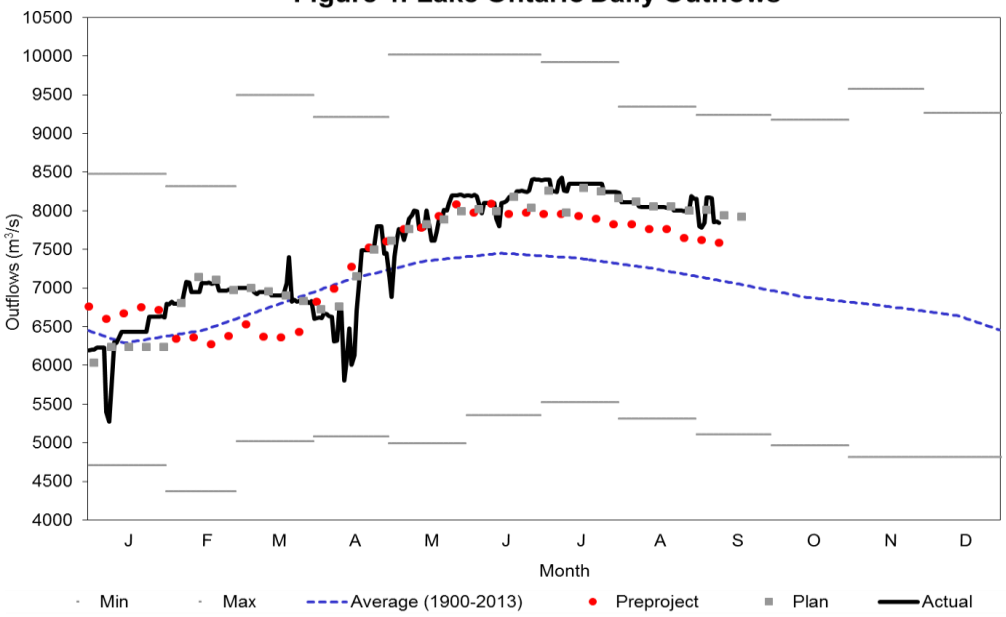

Figure 5: Water Levels on Lake Ontario compared to previous years

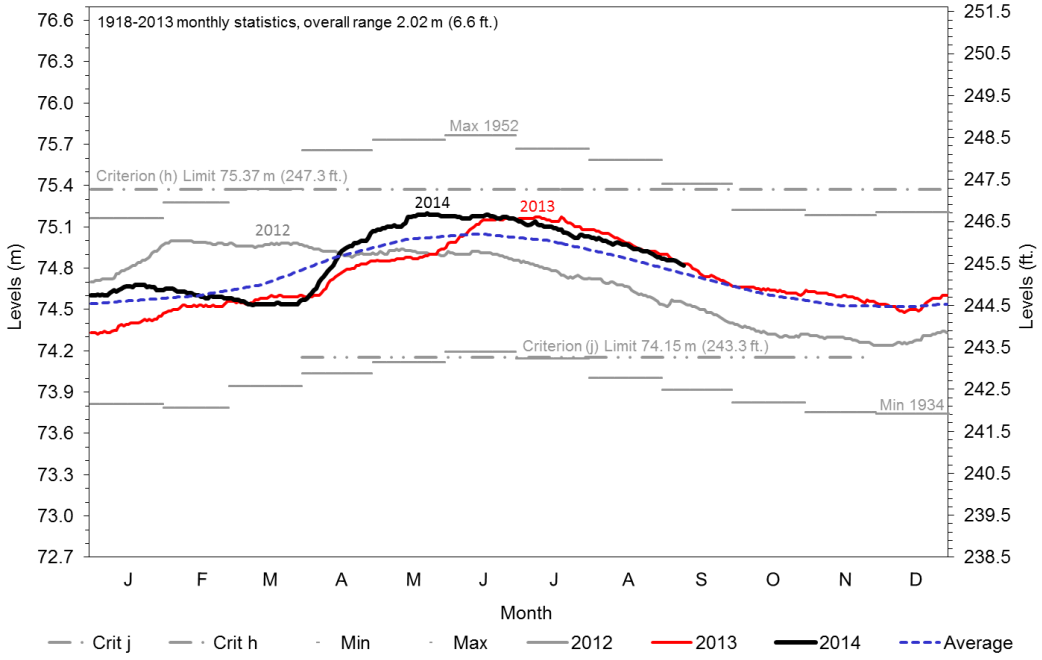

Figure 6: 2014 Actual/Plan Levels (m)

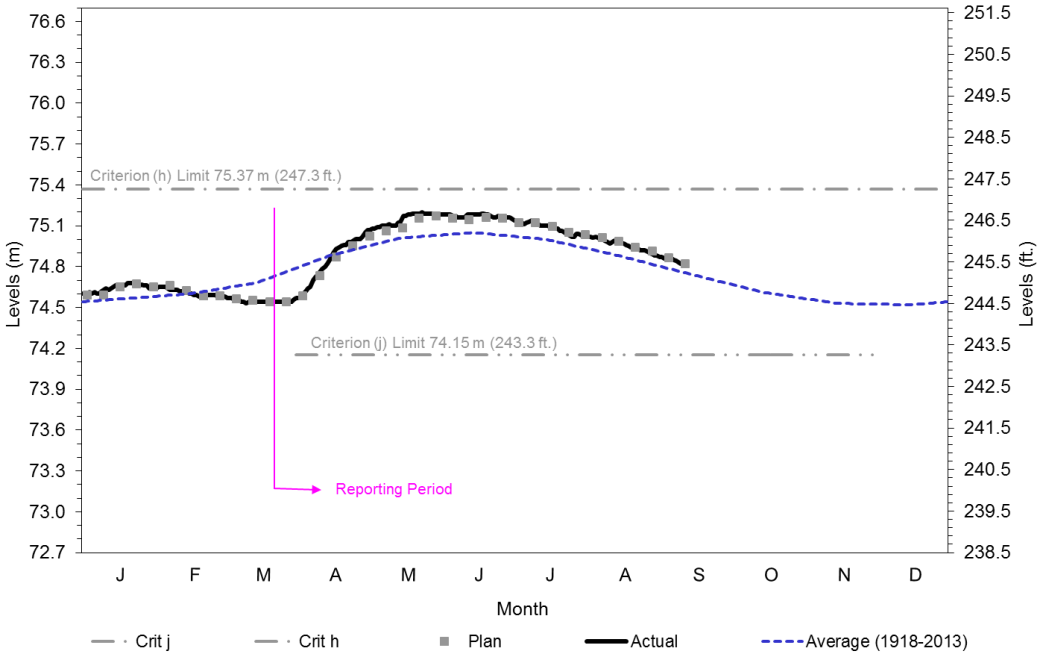

Figure 7: Daily Lake St. Louis Levels

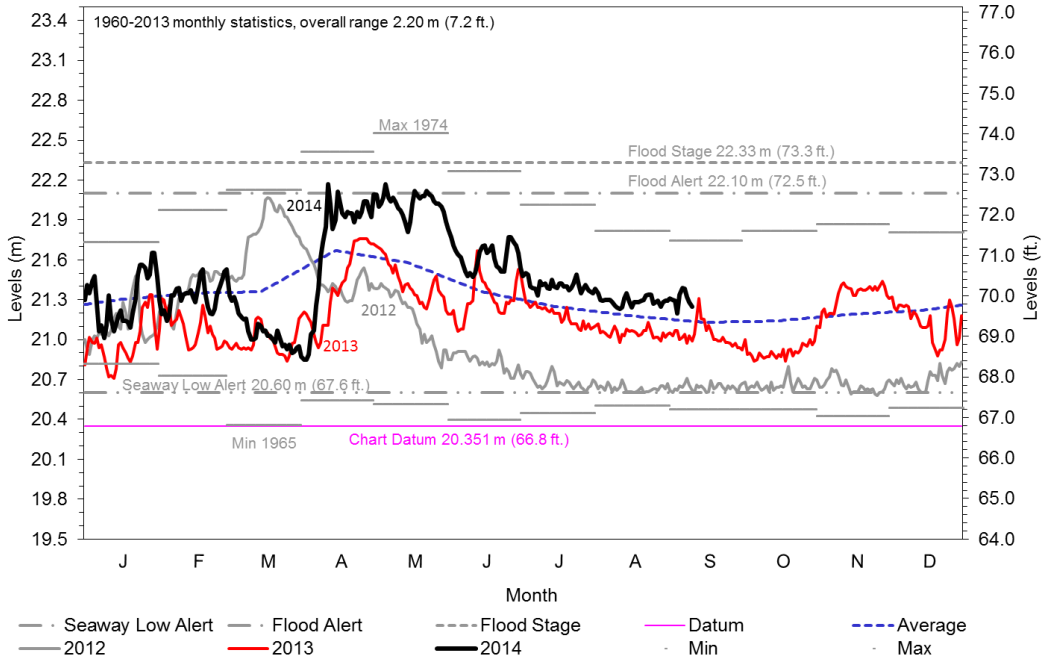

Figure 8: Daily Port of Montreal Levels @ Jetty #1