

ONE HUNDRED AND SEVENTEENTH PROGRESS REPORT
to the
INTERNATIONAL JOINT COMMISSION
by the
INTERNATIONAL ST. LAWRENCE RIVER BOARD OF CONTROL
Covering the Period
SEPTEMBER 14, 2011 THROUGH MARCH 21, 2012

Long Sault Dam



January 30, 2012



February 3, 2011

Lake St. Francis



January 30, 2012



March 14, 2011

MARCH 21, 2012

EXECUTIVE SUMMARY

REGULATION STRATEGY AND RESULTS

The total water supplies during the reporting period were well above average. Supplies were above average each month of the reporting period. The supplies received were within the range of those used in the design of the regulation plan, Plan 1958-D. Lake Ontario levels began the reporting period about 3 cm (1 in) above average for that time of year, fluctuated near average until late November, before rising to well above average by early February. Water levels on Lake Ontario and in the St. Lawrence River were maintained within the criteria specified in the 1956 Supplementary Orders of Approval.

The Board's general regulation strategy the first half of the reporting period was to release outflows in accordance with the regulation plan, while providing for short-term deviations to meet critical needs. The Board released more water than the regulation plan specified the second half of the reporting period in order to reduce Lake Ontario levels. For the first time since the project went into operation, winter weather was not cold enough to form an ice cover in the International Section of the River, although an ice cover did form briefly in the Beauharnois Canal. The Board did not need to deviate for ice formation, which is unusual. However, ice conditions at Beauharnois did limit the Board's ability to overdischarge for several weeks. The ice cover on Lake Ontario was also much lower than average.

Lake Ontario began the reporting period 2.7 cm above the level specified by Plan 1958-D. By the end of the reporting period, levels had risen sharply and the Board had removed about 14.9 cm (5.9 in) from Lake Ontario compared to what the level would have been had only the Plan-specified flows been released. The level on March 21 was 74.98 m (246.0 ft). The Board expects to gradually restore the deviations over the next several months.

COMMUNICATION ACTIVITIES

Communications activities during the reporting period were conducted within the constraints of limited existing resources. The Board held two public teleconferences during the reporting period. The first teleconference was on September 21, 2011 with meeting sites in Oswego and Cornwall. 18 people attended in person and 11 people participated by telephone. The second was on March 20, 2012 with meeting sites in Rochester and Beaconsfield. 17 people attended in person and 15 members of the public participated by telephone. For both events, the Board posted its presentation materials beforehand on its web site for public access. For the March event, the Board provided a demonstration of its web pages and Facebook page. The joint Board-Commission Communications Committee continues to provide advice and assistance on a variety of issues. The Board's website is hosted by the IJC. The Board's Facebook page became operational in January. Board Members and staff responded to a number of public inquiries and requests for information, primarily concerns about above average levels and reporting of damages.

BOARD ACTIVITIES

The Board met twice in person during the reporting period, and thrice by teleconference 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 a risk assessment prior to each meeting and teleconference. The Operations Advisory Group continued its weekly teleconference to apprise the Regulation Representatives of operational requirements and constraints. The Gauging Committee performed their annual inspection of the water level gauges and flow computations from October 11 to 24, 2011.

COVER PHOTOS: Courtesy of the St. Lawrence Seaway Management Corporation

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1 HYDROLOGICAL CONDITIONS

1.1 Lake Ontario Basin - Net Basin Supply

The local net basin supplies (NBS) to Lake Ontario were above average throughout the reporting period. The six-month average NBS would be expected to be exceeded 14 % of the time. Monthly NBS values for the reporting period are provided in Table 1.

1.2 Precipitation

Monthly precipitation amounts for the Lake Ontario basin are provided in Table 2. Precipitation was above average in September, October and January, slightly below average in November and December, and well below average in February. The total amount of precipitation in the six-month reporting period was 430 mm (16.9 in), which was 96 % of average and has been exceeded 58 % of the time. Total precipitation for the entire Great Lakes basin for the six-month period was 400 mm (15.7 in), which was 102 % of average and has been exceeded 44 % of the time.

1.3 Snow-pack on the Lake Ontario Basin

Much of the snow accumulation on the Lake Ontario basin in December and January melted during thaws in December and January. With the exception of the northern extremities of the basin, the snowpack was essentially gone by the middle of February. This melting, along with high inflows from Lake Erie and heavy precipitation for this time of year, caused a sharp rise in the lake's level in January and February. Significant snowfall was received in late February and early March. The snowpack at the end of the reporting period was significantly below average (near zero) and had mostly melted.

1.4 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 well above average during the reporting period, its flow to Lake Ontario was also well above average. Lake Erie's monthly levels this winter were at their highest levels since 1998. The six-month average outflow would be expected to be exceeded 13 % of the time.

1.5 Lake Ontario – Net Total Supply

The monthly net total supplies (NTS) to the Lake are provided in Table 1 and shown graphically in Figure 1. Figure 1 shows the long-term average monthly NTS for the period 1900 to 2011 and the supplies for this reporting period. Also shown, for comparison purposes, are the monthly NTS for 2010 and 2011. The horizontal bars above and below the curves on the graph are the long-term monthly net total supplies maxima and minima. The six-month NTS values for the past ten years are provided in Table 3 for comparison purposes. The monthly NTS values were above average each month of the reporting period. Overall, the total supply was 117 % of average during this reporting period and has been exceeded 10 % of the time.

1.6 Ottawa River Basin

Ottawa River outflows (as shown in Figure 2) varied from near-record lows in October to above normal in January and February. Snow pack on the Ottawa River basin in early March was generally below average. The runoff from the Ottawa River basin began in mid-March, which is earlier than usual.

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 via three conference calls and two meetings to review conditions in the Great Lakes-St. Lawrence River system and develop outflow strategies. Because water levels were well above average in the winter, the Board met by teleconference more often than in some years. The strategies for the reporting period, and their rationale, are available on the Board's Website. In summary, the Board strategy during the first half of the reporting period was to release outflows in accordance with the regulation plan, while providing for short-term deviations to meet critical needs. During the second half of the reporting period, the Board released flows above those specified by the regulation plan (when ice conditions at Beauharnois permitted) in order to reduce the level of Lake Ontario due to the increased risk of levels approaching the upper regulation limit in the spring. Figure 3 shows the Lake Ontario outflows during the reporting period, and Figure 4 shows the Lake Ontario actual, weekly computed Plan 1958-D and preproject conditions levels during the reporting period.

2.2 Deviations from Regulation Plan 1958-D

Table 4 summarizes the Board's deviations during the reporting period. On September 14, there were 2.7 cm (1.1 in) accumulated deviations on Lake Ontario. Plan-prescribed flows were generally released until December 16. To avoid a rapid drop in outflow and large change in river levels, the outflows were gradually reduced the second half of December. This resulted in overdischarges relative to the outflows specified by the regulation plan. The accumulated deviations were removed and the Lake Ontario level was lowered relative to the plan-specified level. With the high inflows from Lake Erie and the increasing possibility of levels approaching the upper monthly mean criterion later in 2012, the Board decided to continue overdischarging. The intent was to reduce the likelihood of Lake Ontario exceeding the Criterion (h) level. As a result, 14.9 cm (5.9 in) of overdischarge was achieved by the end of the reporting period relative to the level had the Plan specified flows been released.

For the first time since regulation began in 1960, winter weather conditions were not cold enough to cause an ice cover to form in the international section of the river. Outflows were reduced to Plan flow from January 15 to 26 to assist ice cover formation at the Beauharnois – Cedars complex.

At the Board's March 21 meeting, it was decided to gradually begin restoring water to Lake Ontario. This restoring will begin at a rate of 200 cubic meters per second (m^3/s , 7,000 cubic feet per second, cfs) and increase to 400 m^3/s (14,000 cfs). Should Lake Ontario rise to more than 30 cm (12 in) above the long-

term average for that time of the year, the restoration will stop. The flow reductions will also reduce the risk of flooding in the Montreal area, where levels rose close to the flood alert level at the end of the reporting period. The strategy allows for variations to meet critical needs.

2.3 Ice Management

Ice booms were placed in the international section of the St. Lawrence River by the Power Entities, beginning on November 17. Following passage of the last commercial vessel, the "Algoma Spirit", on December 30, the last booms that cross the navigation waterway were closed on December 30.

Ice cover formation began in the Beauharnois Canal on January 14 and was essentially complete on January 22. Due to warm weather, the ice cover began to deteriorate soon thereafter. The remaining ice in the Beauharnois Canal was fragile, so an additional flow increase was not prudent at that time. By February 17 the ice cover at Beauharnois had melted and flows were again increased. Due to record high water temperatures, an ice cover did not form in the international section of the river, upstream of the Moses-Saunders Dam.

The opening of the Montreal-Lake Ontario section of the Seaway will be March 22. This was preceded by removal of the A and G Booms (the two booms that cross the navigation channel) on March 19. The remaining booms were removed on March 20.

2.4 Iroquois Dam Operations

19 of the gates at Iroquois Dam were partially closed from February 3 to 9 to suppress the high water levels in Lake St. Lawrence. Levels in Lake St. Lawrence were high due to two factors: outflows being limited by ice conditions in the Beauharnois Canal; and, high Lake Ontario levels. It was not necessary to manipulate the gates at Iroquois Dam for ice formation this winter.

2.5 Results of Regulation

2.5.1 Upstream

Lake Ontario

The effects of Regulation Plan 1958-D and the Board's outflow strategies on the level of Lake Ontario are shown in Figure 3. For comparison purposes, the daily levels of 2010, 2011 and 2012 to the end of the reporting period are shown. At the start of the reporting period, the level was 3 cm (1.2 in) above long-term average for that time of year. The level stayed near or slightly above average until falling to its seasonal low of 74.53 m (244.52 ft) on November 22. This level is average for that time of year. The level then rose slowly until the middle of December, when it rose quickly, due to high inflows from Lake Erie, rainfall and melting of accumulated snow. The levels rose to 75.00 m (246.06 ft) for 10 days in early February, about 38 cm (15 in) above average, even with the Board's aggressive strategy to overdischarge. Levels then declined slowly in response to the Board's strategy of overdischarging, and the low amounts of snowmelt and rainfall. The lake ended the reporting period at 74.98 m (246.00 ft), which is 26 cm (10.2 in) above

long-term average for that time of year. The level would have been at 75.13 m (246.50 ft) if the Board had strictly followed the regulation plan.

A comparison of Lake Ontario's actual monthly levels and outflows to those that would have been obtained under pre-project conditions is given in Table 5. This shows that Lake Ontario was about 37 to 50 cm (1.21 to 1.64 ft.) lower during the reporting period than it would have been without regulation. A comparison of the daily levels to long-term average, and 2010 and 2011 levels is also shown in Figure 5.

Lake St. Lawrence

The water level of Lake St. Lawrence (shown in Figure 6) started the reporting period below average for that time of year, and was generally below average until the middle of December. Thereafter, it was well above average for the remainder of the reporting period. Daily levels in late January and early February were above the monthly record high monthly means due to high Lake Ontario levels, relatively low flows and lack of upstream ice, but fell in response to the subsequent flow increases to lower Lake Ontario.

2.5.2 Downstream

Lake St. Francis

The daily water levels at Summerstown on Lake St. Francis (shown in Figure 7) was generally near average until late December. Then it was generally below average for the rest of the reporting period due to the lack of ice effects. The level was generally above the Seaway Low Alert level of 46.58 m (152.8 ft) throughout the reporting period.

Lake St. Louis

During the reporting period, the level of Lake St. Louis remained well above the Seaway low alert level of 20.60 m (67.6 ft). The daily water levels (shown on Figure 8) were below average (based on the period 1960 through 2011) for the time of year in September through November. They varied from below to above average in response to several precipitation events and melting snow in December through March. In response to the spring freshet, levels rose to near the flood alert level on March 17, and remained there at the end of the reporting period.

Port of Montreal

The daily level at the Port of Montreal (shown in Figure 9) was below average for that time of year, except for a few days, until near the end of the reporting period, when the freshet began. However, the level was above chart datum throughout the reporting period. The Port level was above average at the end of the reporting period, but below its flood threshold.

3 BOARD ACTIVITIES

3.1 Board Meetings & Conference Calls

The Board continued to carry out the Orders of Approval for regulating flows 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, at least monthly 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 Board continued to assess conditions in the basin and adjust or affirm its regulation strategy accordingly. During the reporting period, the Board held meetings on October 18 in Ottawa, Ontario and March 21 in Watertown, New York. The Board also conducted conference calls on December 11, January 11 and February 8 to assess regulation strategy. For the months in between the meetings and teleconferences, the Board received assessments of conditions at least monthly from the Regulation Representatives. Table 6 provides a list of Board Members in attendance at these meetings and on the teleconference.

3.2 Meetings with the Public and Input from the Public

The Board held two public teleconferences during the reporting period. The first was on September 20, 2011, with meeting sites in Oswego and Cornwall. 18 people not associated with the Board or IJC attended in person and 11 people participated by telephone. The second was on March 20, 2012, with meeting sites in Rochester and Beaconsfield. 17 people not associated with the Board or IJC attended in person and 15 public persons participated by telephone. For both events, the Board posted its presentation materials beforehand on its web site for public access. For the March event, the Board provided a demonstration of its web pages and Facebook page.

During the reporting period, the Communication Committee, individual Board Members and the Secretaries 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. Many of these were from Lake Ontario riparians concerned about the above average lake levels and reporting of damages.

4 COMMUNICATIONS COMMITTEE REPORT

The Board continued to work with the International Joint Commission through the Communications Committee, to seek opportunities to improve communications with the public. Background work is being done despite limited resources by Board staff to enhance the Board web site. The Canadian Section of the Board was provided communications assistance from Environment Canada. The Corps of Engineers provided a part-time communications specialist during the reporting period to the end of November.

The Committee, with the assistance of the Board and Regulation Representatives, developed responses to questions frequently asked of the Board (FAQs). The Board approved this set of FAQs at its January

teleconference. They were then sent to the Commission for translation and will be posted to the Board's web site in the near future. The Committee also drafted several iterations of a Facebook page. This was approved by the Board and became operational in January. The Board's website and Facebook pages are hosted by the IJC.

Other communication activities during the reporting period included:

- Preparation of media releases: The Board issued media releases after each Board regulation decision, to provide the public with recent information on water level conditions and regulation strategies with their rationale;
- 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 Web Page on the internet
http://www.ijc.org/conseil_board/islrbc/en/main_accueil.htm The Page includes:
 - 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.
 - Posting of the Board's meeting minutes and teleconference summaries.
 - The Board's next annual meeting with the public and public teleconferences.
- Operation of the Board's Facebook page

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

5 RIVER GAUGING COMMITTEE REPORT

The 73rd (2009) report was accepted by the Board at its October 18 meeting. The results of the previous precision survey were accepted by NOAA's National Geodetic Survey and Canada's Geodetic Survey and presented in the 2009 gauging report. The Power Entities determined there would be no impact on the unit rating tables, based on the results of the precision survey and the recommendations are being implemented.

5.1 Raisin River

The Raisin River Diversion was open at the beginning of the reporting period and was used until September 21 to augment flows in the headwaters of the South Branch of the Raisin River. The diverted outflow was about 0.1 m³/s (3.5 cfs).

5.2 Water Level Gauges

The Gauging Committee performed an annual inspection of the water level gauging network on the St. Lawrence River from October 11 to 24, 2011. The data audit will be forwarded to NOAA and Environment Canada shortly.

5.3 Turbine Upgrades

The New York Power Authority removed Unit 19 at its Moses plant from service on July 25, 2011 and it is expected to be returned to service April 6, 2012. Unit 20 of the Moses plant will be taken out for upgrade on April 9, 2012.

6 ST. LAWRENCE SEAWAY REPORT

Navigation ceased in the Montreal-Lake Ontario Section with the passage of the last downbound commercial vessel, the "Catherine Desgagnés", through St. Lambert Lock on December 29, and the upbound vessel, "Algoma Spirit", through Iroquois Lock on December 30. The "Algoma Spirit" cleared Cape Vincent on December 30 at 07:54 hours.

The Seaway navigation season will open on March 22 at 8:00 am.

7 HYDROPOWER PEAKING AND PONDING

By letter dated 13 October 1983, the Commission authorized Ontario Power Generation and the New York Power Authority 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 IJC renewed the approval for a 5-year period to November 30, 2016.

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

8 ICE SLUICES

On May 11, 2011, the New York Power Authority and Ontario Power Generation (Power Entities) sent a letter to the IJC to request removing from service the six ice gates at the Moses-Saunders Power Dam which are not used. The IJC provided a preliminary response on July 27 and requested the Board's review and recommendation. The Board's technical staff analyzed the consultant's report upon which the request was based. The Board discussed the report, and its staff input, and informed the IJC by letter of September 15 that it recommended the removal of the six ice gates. The Board foresees no operational problems with removing the ice sluices from service. There will be no significant changes to the operation of the project. Experience over the past 50 years has shown that the use of Iroquois Dam, placement of ice booms, and other measures, are sufficient to handle ice formation issues. The IJC provided an update to the Power Entities on November 28, noting that it was reviewing how Appendix A, part (c) of the 1952 Order of Approval could be amended.

9 BOARD MEMBERSHIP CHANGES

On September 19, MG John W. Peabody resigned from the Board, effective upon his turning over command of the Great Lakes and Ohio River Division and departure for a new assignment in the Corps of Engineers' Mississippi Valley Division. On October 3, the Commission appointed COL(P) Margaret W. Burcham, now BG, as the U.S. Chair of the Board, replacing MG Peabody. In November, Board Members Bernier, Hullar, Sciremammano, and Yeomans had their appointments renewed through the end of 2013, or until the Commission makes changes pursuant to the Lake Ontario St. Lawrence River decision process (whichever comes first). There remains a vacancy on the Canadian Section of the Board.

At the Board's October 18 meeting, it accepted Mr. Michael McNiven of Ontario Power Generation as the Canadian Chair of the Gauging Committee, replacing Mr. Rob Carson.

Respectfully submitted,

MEMBERS FOR THE UNITED STATES

/s/

BG M. W. BURCHAM, CHAIR

/s/

J. BERNIER

/s/

T. BROWN

/s/

T. HULLAR

/s/

F. SCIREMAMMANO, Jr.

MEMBERS FOR CANADA

/s/

P. MOREL, CHAIR

/s/

A. CARPENTIER

/s/

J. FRAIN

/s/

P. YEOMANS

Table 1
MONTHLY MEAN SUPPLIES TO LAKE ONTARIO

Month	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⁾
Sep 11	6040	213	44	102	310	11	28	6350	224	32	105
Oct 11	6270	221	25	107	800	28	11	7070	250	14	116
Nov 11	6240	220	26	107	750	26	38	6990	247	29	108
Dec 11	6870	243	7	117	1480	52	17	8350	295	8	125
Jan 12	6930	245	4	122	1620	57	15	8550	302	6	129
Feb 12	6710	237	6	120	1150	41	40	7860	278	12	119

⁽¹⁾ Based on period of record 1900-2011

Table 2
PROVISIONAL PRECIPITATION OVER GREAT LAKES AND LAKE ONTARIO BASINS

Month	Great Lakes Basin			Lake Ontario Basin		
	mm (inches) ⁽¹⁾	% of LTA ⁽²⁾	Exceed. Prob. ⁽³⁾	mm (inches) ⁽¹⁾	% of LTA ⁽²⁾	Exceed. Prob. ⁽³⁾
Sep 11	97 (3.83)	111	30	87 (3.42)	105	42
Oct 11	82 (3.24)	112	36	90 (3.56)	114	33
Nov 11	76 (3.01)	109	36	73 (2.89)	90	60
Dec 11	54 (2.13)	90	65	66 (2.61)	88	64
Jan 12	57 (2.23)	102	46	79 (3.11)	114	30
Feb 12	34 (1.33)	76	74	35 (1.36)	58	91

⁽¹⁾ Provisional ⁽²⁾ Based on period of record 1900-2011

⁽³⁾ Based on period of record 1900-2008

**Table 3
AVERAGE AND RECORDED SIX-MONTH SUPPLIES (Sep-Feb)**

	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
Sep 02 - Feb 03	6420	227	5690	201	80	-730	-26	-11
Sep 03 - Feb 04	6420	227	6620	234	39	200	7	3
Sep 04 - Feb 05	6420	227	7240	256	17	820	29	13
Sep 05 - Feb 06	6420	227	7000	247	24	580	20	9
Sep 06 - Feb 07	6420	227	7590	268	9	1170	41	18
Sep 07 - Feb 08	6420	227	6540	231	43	120	4	2
Sep 08 - Feb 09	6420	227	6910	244	28	490	17	8
Sep 09 - Feb 10	6420	227	6500	230	44	80	3	1
Sep 10 - Feb 11	6420	227	6270	221	55	-150	-5	-2
Sep 11 - Feb 12	6420	227	7530	266	10	1110	39	17

⁽¹⁾ Based on period of record 1900-2011

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

Date 20110-2012	Deviation (cms)	Dev. (cms - wks)	Acc. Dev. rounded (cms- wks)	Cum. Effect on Lake Ont. rounded (cm)	Reason for Deviation
Sep 14			-880	2.7	
Nov 23-24	-300 for 22 hrs	-39	-920	2.8	Seaway Alert-Low levels on Upper St. Law R.
Nov 29-30	-300 for 8 hrs	-14	-930	2.9	Seaway Alert-Low levels on Upper St. Law R.
Dec 17-23	910 for 168 hrs	910	-20	0.1	To smooth the transition in flows
Dec 24-30	220 for 168 hrs	220	200	-0.6	To smooth the transition in flows
Dec 31-Jan 3	300 for 96 hrs	171			Remove Water from Lake Ontario
Jan 4-6	600 for 72 hrs	257	630	-2.0	Remove Water from Lake Ontario
Jan 7-13	600 for 168 hrs	600	1230	-3.8	Remove Water from Lake Ontario
Jan 14	600 for 11 hrs	39	1270	-3.9	Remove Water from Lake Ontario
Jan 26-27	270 for 35 hrs	56	1330	-4.1	Remove Water from Lake Ontario (High LSL level)
Jan 28-30	270 for 60 hrs	96			Remove Water from Lake Ontario (High LSL level)
Jan 30-Feb 3	570 for 108 hrs	366	1790	-5.5	Remove Water from Lake Ontario (High LSL level)
Feb 6-7	300 for 25 hrs	45			Remove Water from Lake Ontario (High LSL level)
Feb 7-8	500 for 23 hrs	68			Remove Water from Lake Ontario (High LSL level)
Feb 8-9	700 for 24 hrs	100			Remove Water from Lake Ontario
Feb 9-10	1000 for 35 hrs	208	2210	-6.8	Remove Water from Lake Ontario
Feb 11-13	440 for 61 hrs	160			Remove Water from Lake Ontario
Feb 13-14	790 for 25 hrs	118			Remove Water from Lake Ontario
Feb 14-17	890 for 82 hrs	434	2920	-9.0	Remove Water from Lake Ontario
Feb 18-24	890 for 168 hrs	890	3810	-11.8	Remove Water from Lake Ontario
Feb 25-Mar 2	320 for 168 hrs	320	4130	-12.8	Remove Water from Lake Ontario
Mar 3-9	320 for 168 hrs	320	4450	-13.8	Remove Water from Lake Ontario
Mar 10-16	320 for 168 hrs	320	4770	-14.8	Remove Water from Lake Ontario
Mar 17	320 for 13 hrs	25			Remove Water from Lake Ontario
Mar 20-21	10 for 48 hrs	3	4800	-14.9	Unintentional – minor operational deviation

Table 5
LAKE ONTARIO RECORDED AND PRE-PROJECT LEVELS AND OUTFLOWS

Month	Lake Ontario Monthly Mean Water Levels (IGLD 1985) - meters (feet)			Lake Ontario Monthly Mean Outflow m³/s (tcfs)		
	Recorded	Pre-project	Diff.	Recorded	Pre-project	Diff.
Sep 11	74.76 (245.27)	75.13 (246.49)	-0.37 (-1.22)	7530 (266)	7370 (260)	160 (6)
Oct 11	74.66 (244.94)	75.06 (246.26)	-0.40 (-1.32)	7400 (261)	7230 (255)	170 (6)
Nov 11	74.58 (244.68)	75.01 (246.09)	-0.43 (-1.41)	7600 (268)	7150 (252)	450 (16)
Dec 11	74.62 (244.81)	75.12 (246.45)	-0.50 (-1.64)	7510 (265)	7360 (260)	150 (5)
Jan 12	74.80 (245.40)	75.23 (246.81)	-0.43 (-1.41)	6520 (230)	7520 (266)	-1000 (-35)
Feb 12	74.99 (246.03)	75.34 (247.18)	-0.35 (1.15)	7810 (276)	7690 (272)	120 (4)

Table 6
Attendance at Meetings and Teleconferences

Board Member	Country	Oct. 18	Dec 11 teleconf	Jan 11 teleconf	Feb 8 teleconf	Mar 21
BG M. Burcham ¹ COL J. Drolet ²	U.S.	- X	- X	- X	- X	X X
Mr. P. Morel ³	Can.	X	-	-	-	X
Mr. J. Bernier	U.S.	X	X	X	X	X
Mr. T. Brown	U.S.	X	X	X	X	X
Mr. A. Carpentier	Can.	X	X	X	-	X
Ms. J. Frain	Can.	X	X	-	X	X
Dr. T. Hullar	U.S.	X	X	X	-	X
Dr. F. Sciremammano, Jr.	U.S.	X	-	X	X	X
Mr. P. Yeomans	Can.	X	X	X	X	X

Notes: 1. U.S. Co-Chair; 2. Alt. U.S. Co-Chair ; 3. Canadian Co-Chair

Location of Meetings:

October 18, 2011, Ottawa, Ontario
March 21, 2012, Watertown, New York

Figure 1: Monthly Net Total Supplies to Lake Ontario

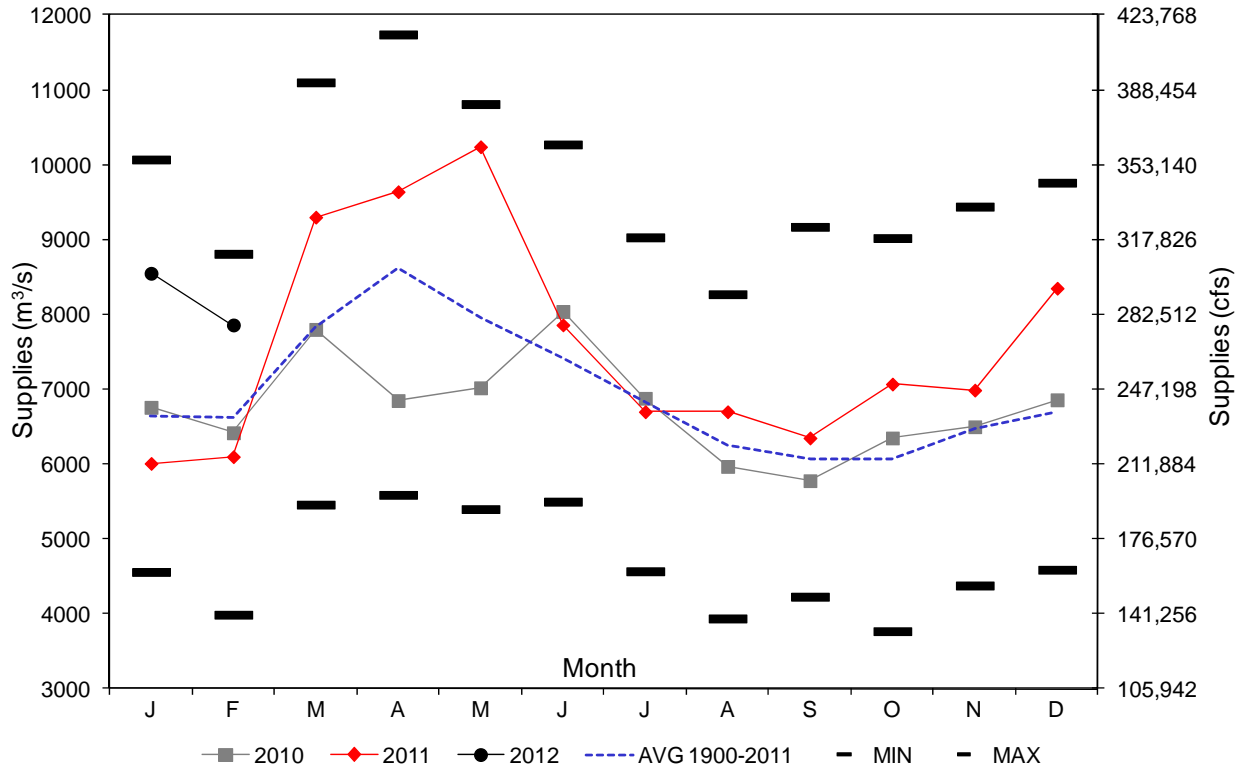


Figure 2: Daily Ottawa River Flow @ Carillon

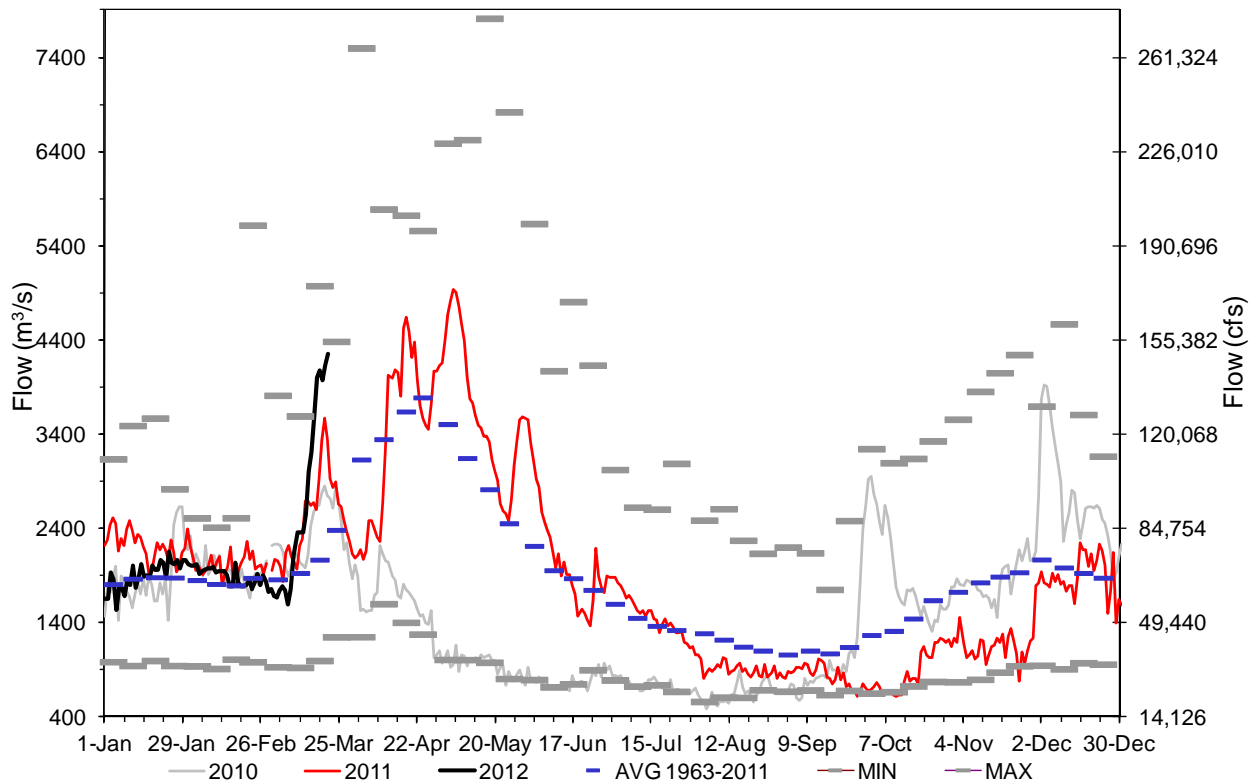


Figure 3: Lake Ontario Daily Outflows

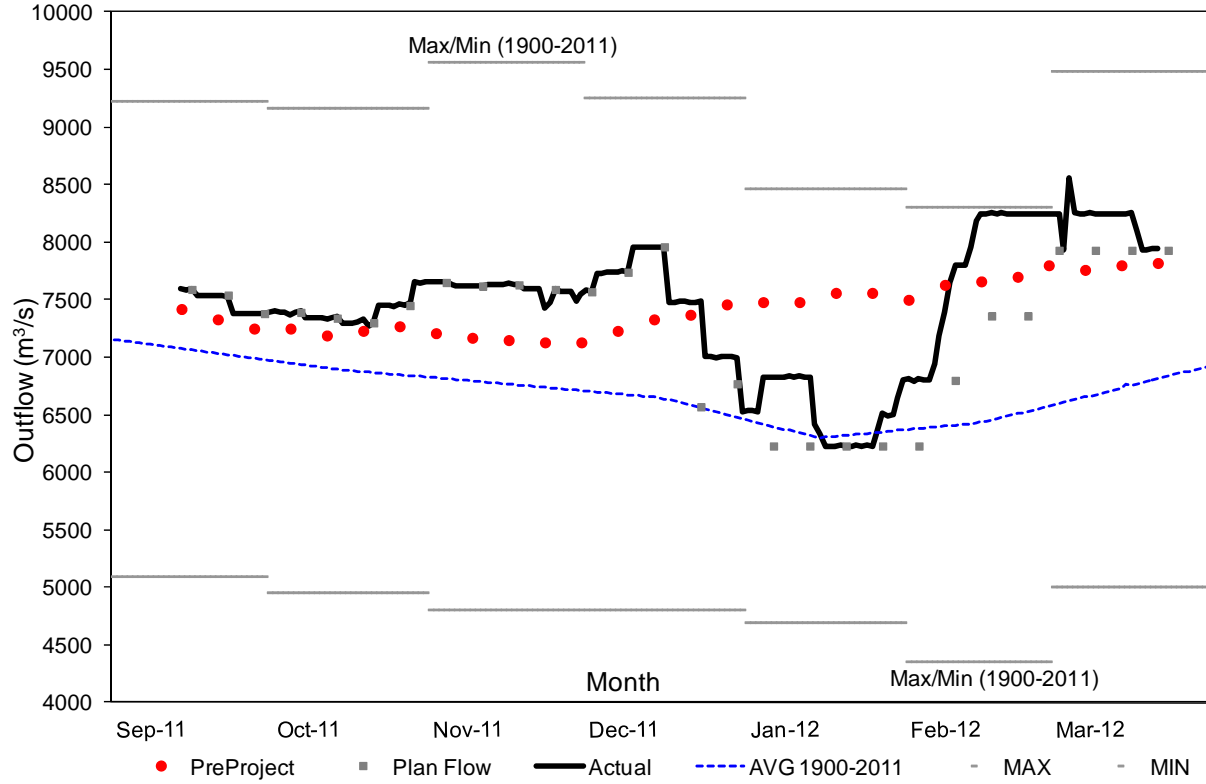


Figure 4: Lake Ontario Actual, Preproject & Plan Levels

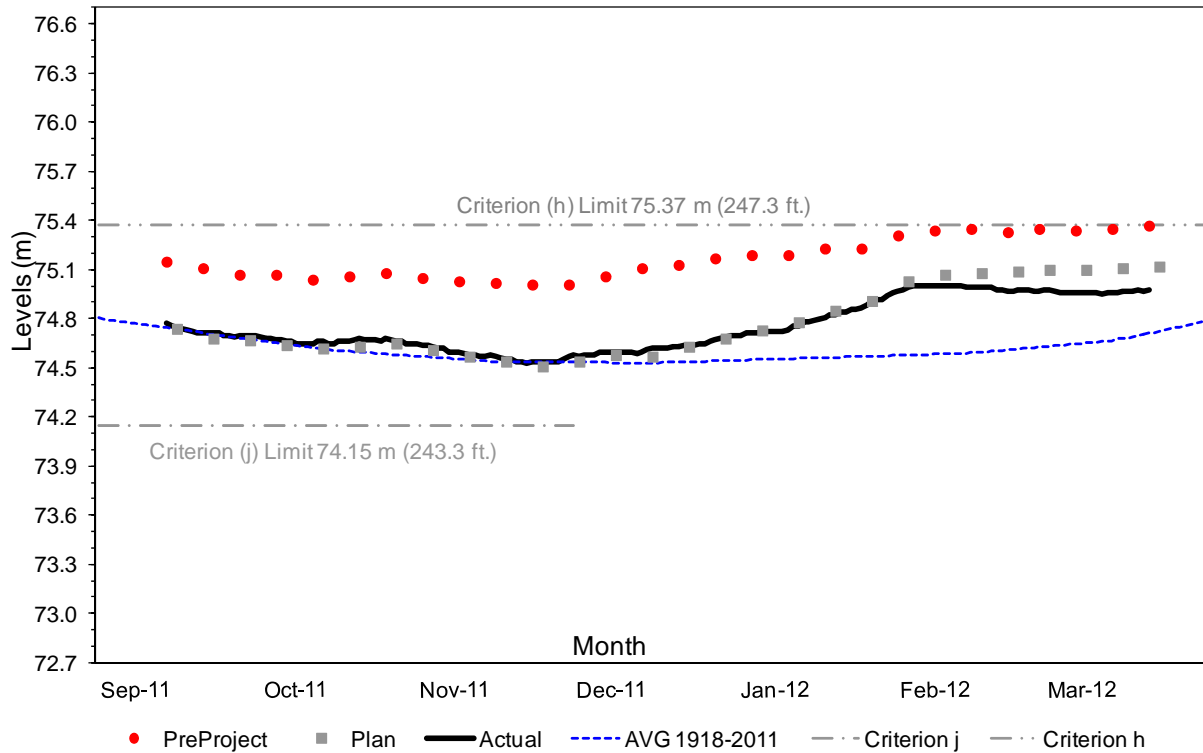


Figure 5: Daily Lake Ontario Water Levels

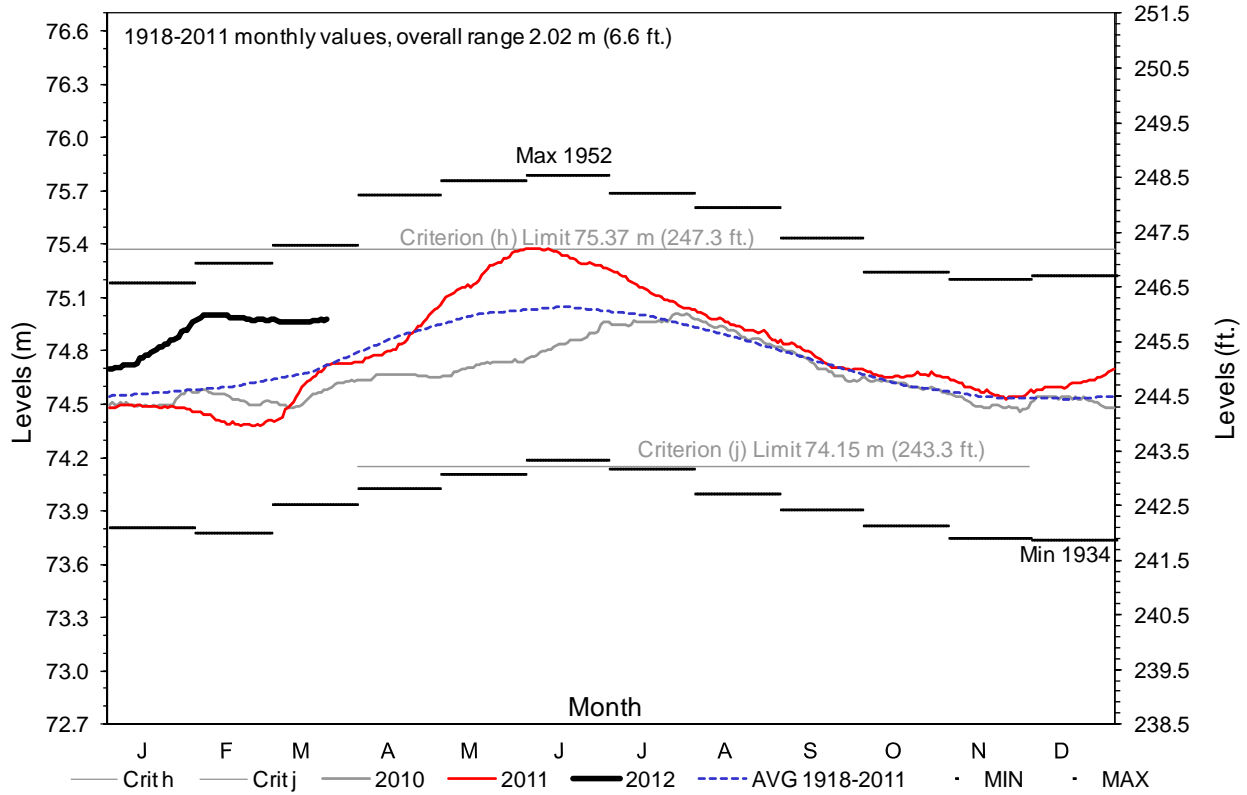


Figure 6: Daily Lake St. Lawrence Levels @ Long Sault Dam

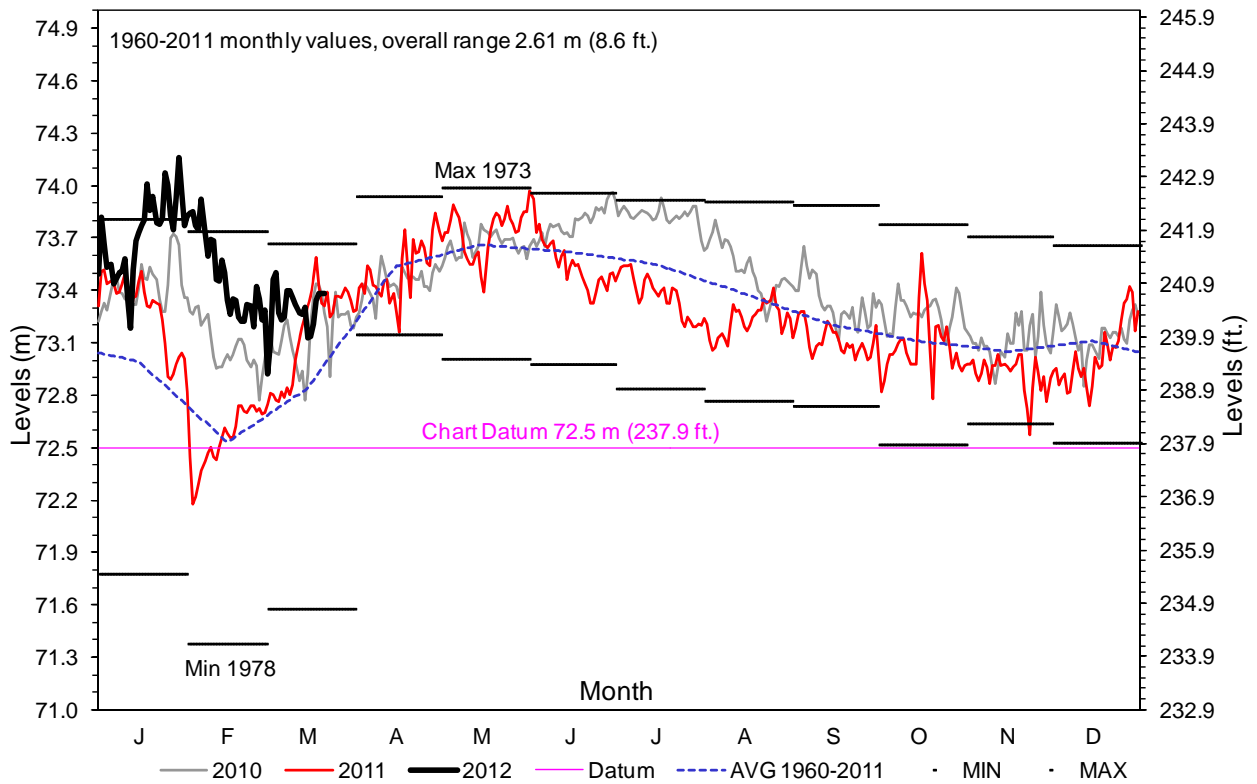


Figure 7: Daily Lake St. Francis Levels @ Summerstown

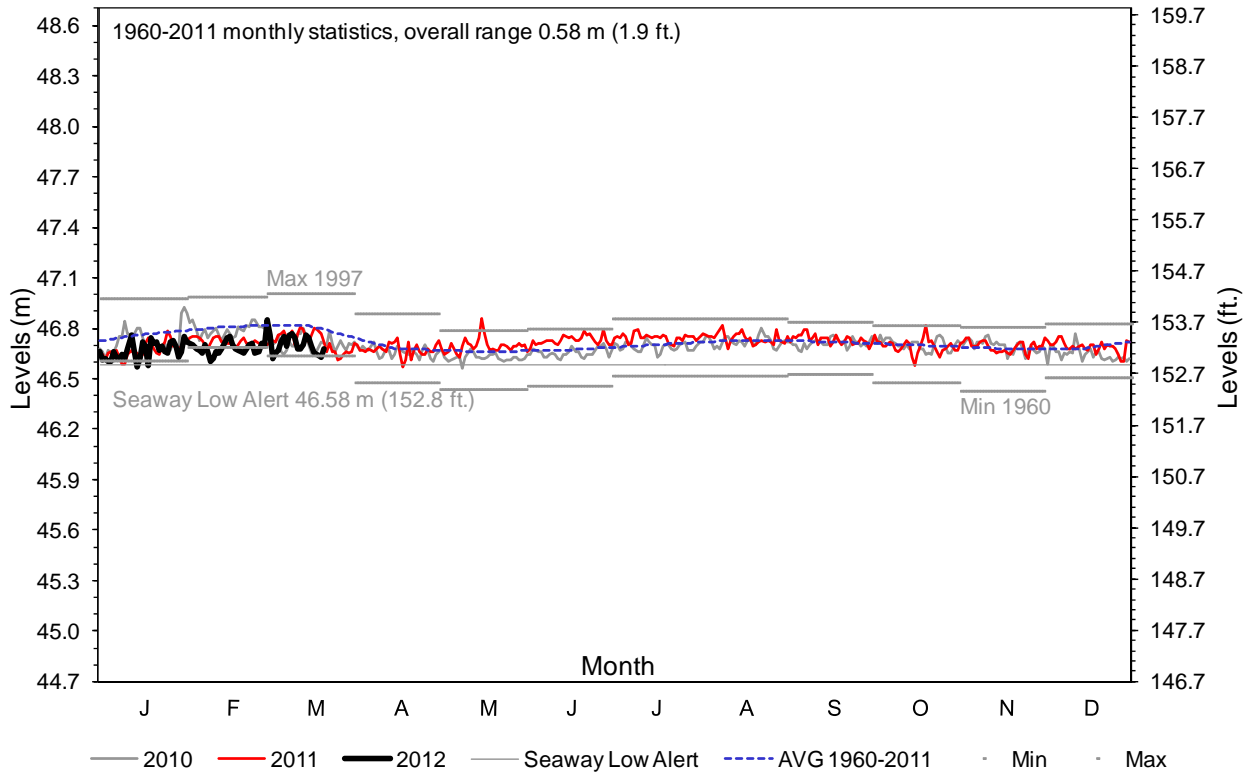


Figure 8: Daily Lake St. Louis Levels @ Pointe-Claire

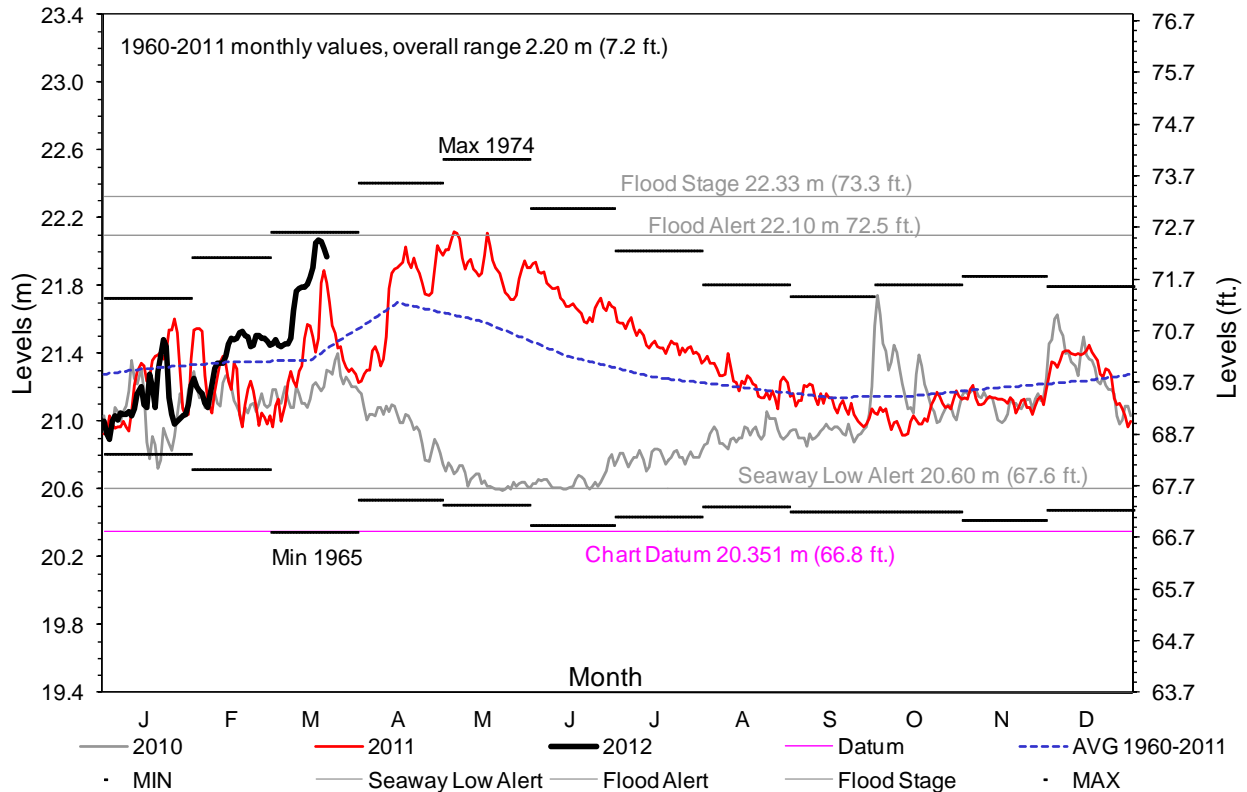


Figure 9: Daily Port of Montreal Levels @ Jetty #1

