

**ONE HUNDRED AND NINTH PROGRESS REPORT  
to the  
INTERNATIONAL JOINT COMMISSION  
by the  
INTERNATIONAL ST. LAWRENCE RIVER BOARD OF CONTROL  
Covering the Period  
SEPTEMBER 13, 2007 THROUGH MARCH 19, 2008**



**Moses-Saunders Powerhouse**



**St. Lambert Lock**

**MARCH 19, 2008**

## EXECUTIVE SUMMARY

### REGULATION STRATEGY AND RESULTS

The water supplies during the first half of the reporting period were below average, and then supplies switched to being consistently above average the remainder of the reporting period. The supplies received were within the range of those used in the design of the regulation plan, Plan 1958-D. Although Lake Ontario levels rose from well below average to well above average, water levels on Lake Ontario and in the St. Lawrence River were maintained within the criteria specified in the 1956 Amended Orders of Approval.

The Board's general regulation strategy throughout the reporting period was to restore, while meeting critical needs, the overdischarges accumulated the previous winter and spring for the purposes of reducing the risk of shoreline damages due to high water levels on Lake Ontario. The Board extensively used its discretionary authority to increase the levels on Lakes St. Lawrence and St. Louis during the fall while meeting critical needs (see Table 4, page 9). Winter operations led to outflows being varied from Plan 1958-D for ice management purposes for much of the winter period.

Lake Ontario began the reporting period about 16 cm (6 in) below average, and 7.2 cm (2.8 in) of water had been overdischarged from Lake Ontario relative to a strict adherence to Plan 1958-D. The low water supplies of the four months preceding the start of the reporting period continued for another three months. With the advent of the wet water supply sequence over the following months, the Board was able to restore much of the water. This led to releases less than those specified by the regulation plan. At the end of the reporting period, levels were about 22 cm (8.7 in) above average. The level was also about 0.8 cm (0.3 in) lower than it would have been had Plan 1958-D been strictly followed.

### COMMUNICATION ACTIVITIES

Communications activities during the reporting period were conducted within the constraints of limited existing resources. The Board conducted public teleconferences on September 18, 2007 and March 18, 2008. In addition to having two sites in September (at Oswego and Cornwall) for face-to-face participation, 22 members of the public participated by call-in. In March, there was a single in-person meeting site (at Rochester), with about 27 in attendance and 37 participating by call-in. Participants listened to the Board presentation and then addressed comments and questions to the Board. The Board posted its presentation materials on its web site for public access.

The Board continues to issue media releases following its regulation strategy decisions. The joint Board-Commission Communications Committee continues to provide advice and assistance on a variety of issues. These included planning for the annual meeting and multi-city teleconferences, assessing communications issues, and modification to (and efforts to implement) the Communications Strategy. Board Members and staff responded to a number of public inquiries and requests for information. The Committee prepared, and the Board approved, a communications strategy which highlights the need for adequate full-time communication resources. The Board is forwarding this to the IJC for its support in implementation.

### BOARD ACTIVITIES

The Board met in person twice during the reporting period, and three times by teleconference, to assess conditions and adjust its outflow strategy to meet current needs. 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 9 to 19, 2007. In addition, the Committee worked to clear a backlog of annual reports on water levels and attend to several gauge operation and maintenance issues.

#### **COVER PHOTO**

Winter was challenging this year, with the ice cover forming, dissipating, and then forming again. These photos show the late-winter ice cover above the Moses-Saunders powerhouse and at the St. Lambert Lock on February 28, 2008. Photo credit: St Lawrence Seaway Management Corporation.

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Figure 1 Great Lakes Drainage Basin – St. Lawrence River System

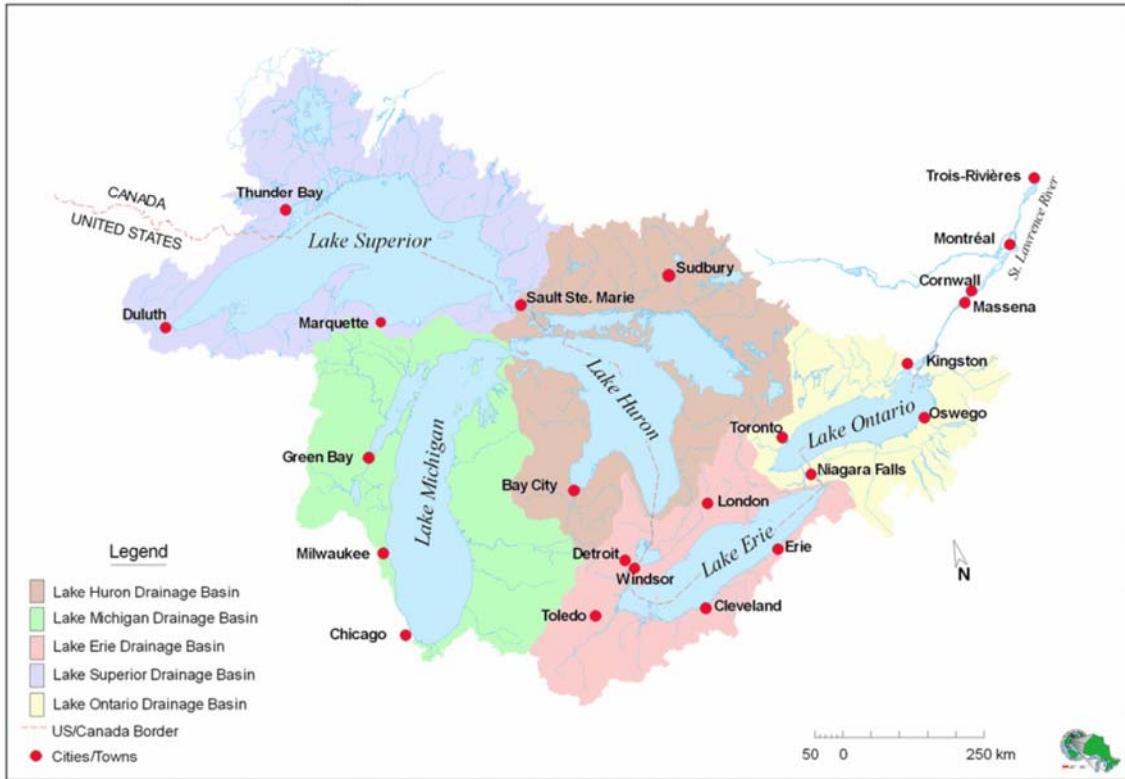


Figure 2 Map of Lake Ontario-St. Lawrence River System

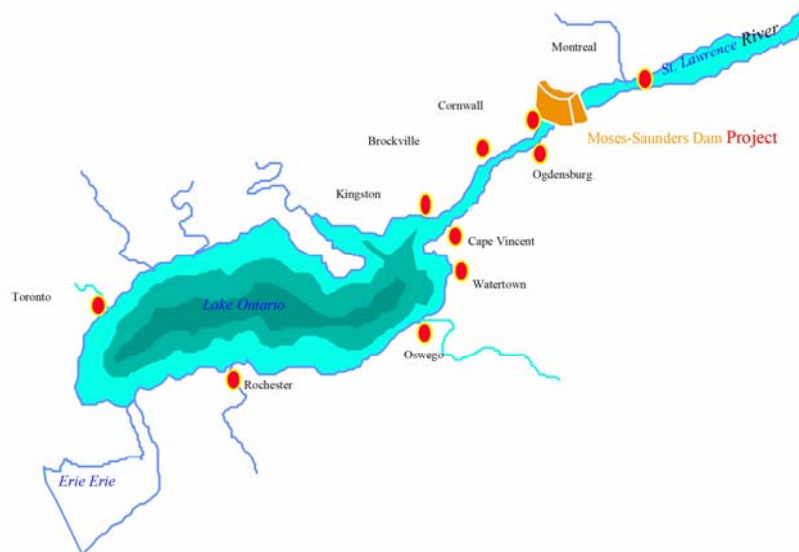


Figure 3 Map of Upper St. Lawrence River Control Structures

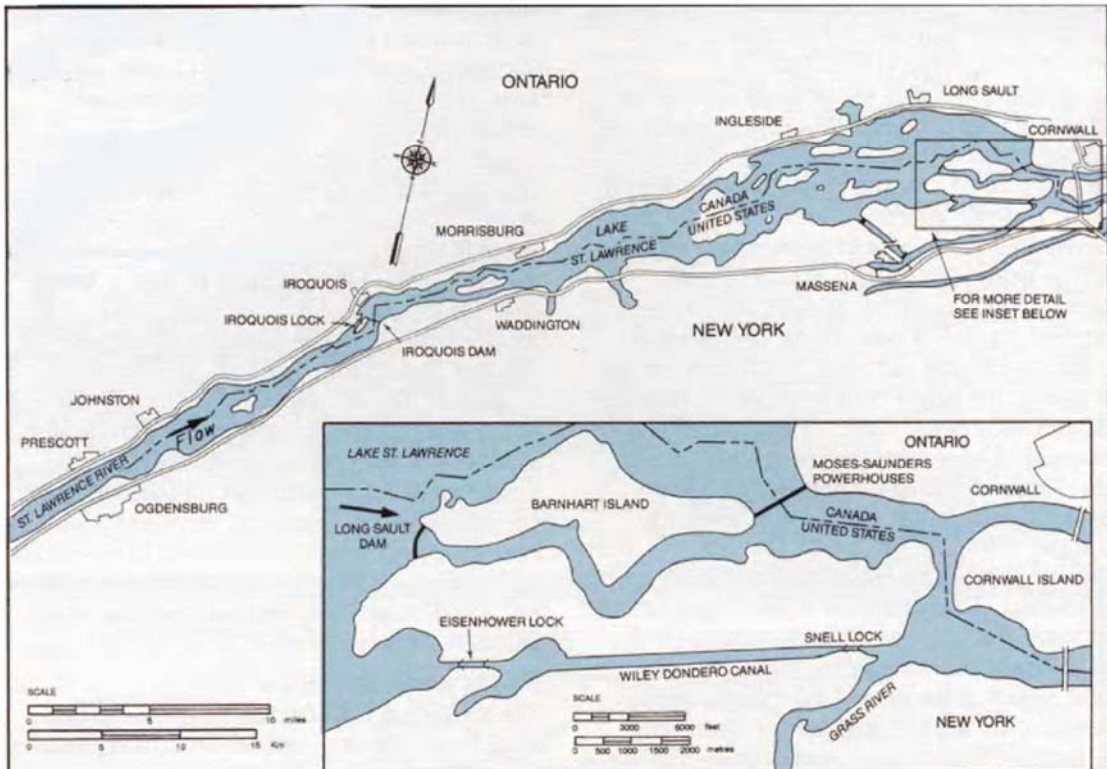
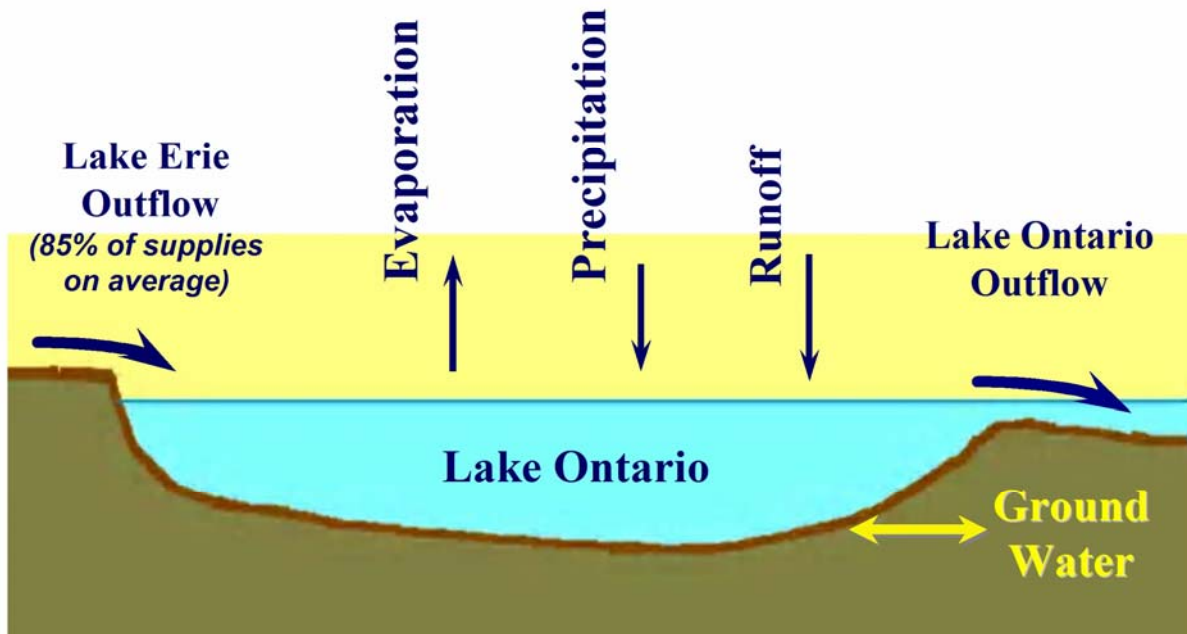


Figure 4 Factors Affecting the Level of Lake Ontario



## 1 HYDROLOGICAL CONDITIONS

Lake Ontario is the furthest downstream of the five Great Lakes. It receives the outflow of Lakes Superior, Michigan, Huron and Erie (Figure 1). From a long-term perspective, about 85% of the water received by Lake Ontario comes from the upstream Great Lakes. Lake Ontario outflows are controlled about 160 km (100 miles) from the lake (Figure 2) with almost all of the water going through the Moses-Saunders powerhouse. Prior to construction of the powerhouse and navigation locks (Figure 3) the flow out of Lake Ontario was controlled by a series of rapids that began about 110 km (70 miles) downstream from the lake, near the towns of Ogdensburg, New York-Prescott, Ontario.

Water supply to Lake Ontario is comprised of four main factors (Figure 4) – inflow from Lake Erie through the Niagara River and the Welland Canal diversion, precipitation on the surface of the Lake, runoff from streams and groundwater flowing into Lake Ontario, and evaporation of water from the Lake. In addition, water for consumptive use is taken from the Lake.

In this report, supplies to Lake Ontario are reported in terms of Net Basin Supplies and Net Total Supplies. The definitions of the Net Basin Supplies and Net Total Supplies are as follows:

The Net Basin Supply is the net of the amount of precipitation over the Lake, runoff to the Lake (including groundwater) and evaporation from the Lake's surface. Precipitation and runoff are estimated by measurements, but it is not possible to accurately measure evaporation and consumptive uses. Therefore, the NBS is estimated as the difference between the Lake's outflow down the St. Lawrence River and inflow from Lake Erie, plus any change in storage within the Lake itself as a result of a rise or fall in the Lake's level. An indicator of the amount of spring runoff that may be expected is obtained by monitoring the snow pack in the basin.

The Net Total Supply is obtained by adding the inflows from Lake Erie through the Niagara River and Welland Canal, to the Net Basin Supply. The Niagara River flow is computed using a stage-discharge relationship for the Niagara River below Niagara Falls and adding the flow through the hydropower turbines located along the Niagara River.

### 1.1 Lake Ontario Basin - Net Basin Supply

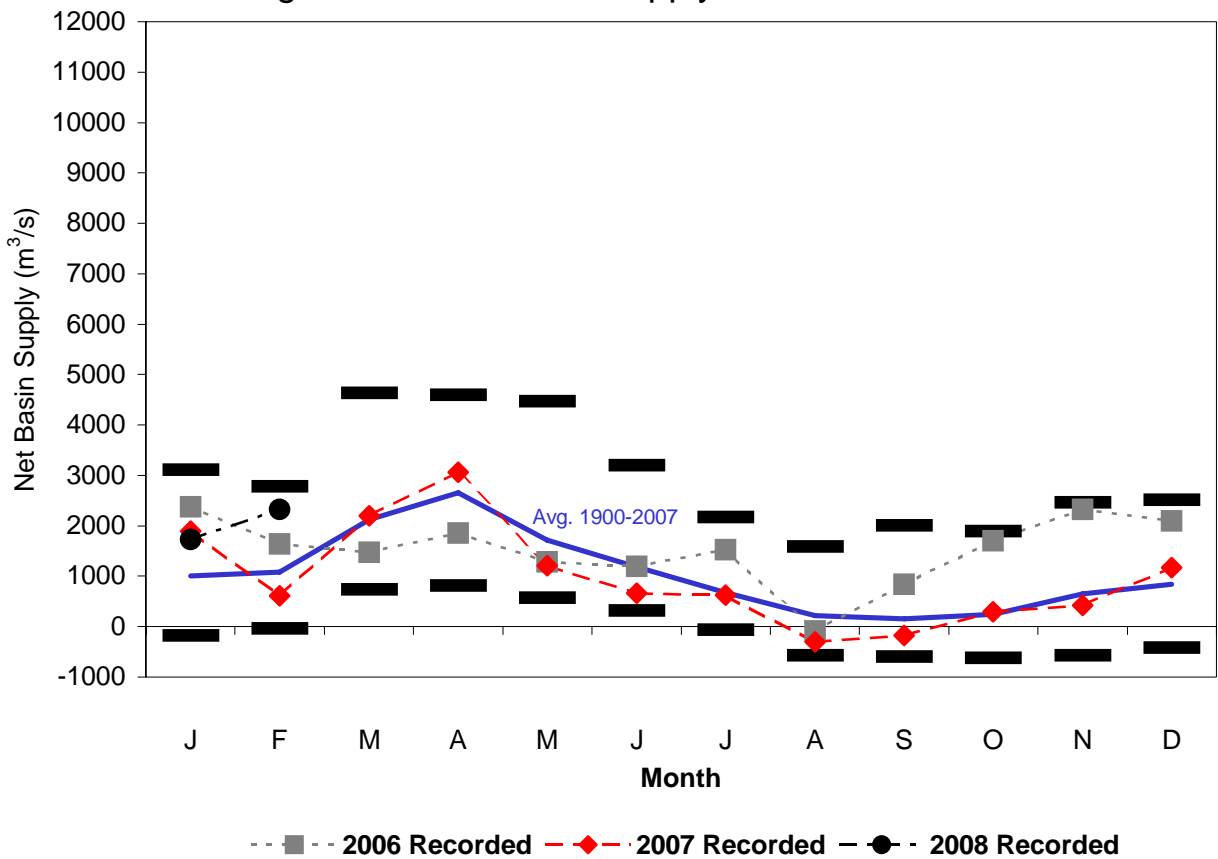
The local net basin supplies to Lake Ontario were generally near or slightly below average from September to November, and well above average from December to February. Monthly net basin supplies values for the reporting period are provided in Table 1. Figure 5 shows the long-term average monthly net basin supplies for the period 1900 to 2007 and the net basin supplies for this reporting period. Also shown, for comparison purposes, are the monthly net basin supplies for the years 2006 and 2007. The horizontal bars above and below the curves on the graph are the long-term monthly net basin supplies maxima and minima.

**Table 1 Monthly Mean Supplies to Lake Ontario**

Month	Inflow from Lake Erie				Local Net Basin Supplies			Total Supplies			
	m <sup>3</sup> /s	tcfs	Exceed. Prob. <sup>(1)</sup>	% of LTA <sub>(1)</sub>	m <sup>3</sup> /s	tcfs	Exceed. Prob. <sup>(1)</sup>	m <sup>3</sup> /s	tcfs	Exceed. Prob. <sup>(1)</sup>	% of LTA <sub>(1)</sub>
Sep 07	5580	197	70	94	-180	-6	80	5400	191	81	89
Oct 07	5420	191	74	93	290	10	43	5710	202	62	94
Nov 07	5370	190	77	92	420	15	62	5790	204	73	90
Dec 07	5630	199	61	97	1170	41	30	6800	240	42	102
Jan 08	5760	203	42	102	1730	61	14	7490	265	23	113
Feb 08	5600	198	47	101	2330	82	2	7930	280	10	120

(1) Based on period of record 1900-2007

**Figure 5 Net Basin Supply to Lake Ontario**



### 1.1.1 Precipitation

Monthly precipitation amounts for the Lake Ontario basin are provided in Table 2 and shown in Figure 6. Precipitation was below average in September, October, and January, but near the record maximum in February. The total amount of precipitation in the six-month reporting period was 498 mm (19.6 in.), which was 113% of average, and has been exceeded 18% of the time. Total precipitation for the entire Great Lakes basin for the six-month period was 455 mm (17.9 in.), which was 117% of average, and has been exceeded 12% of the time.

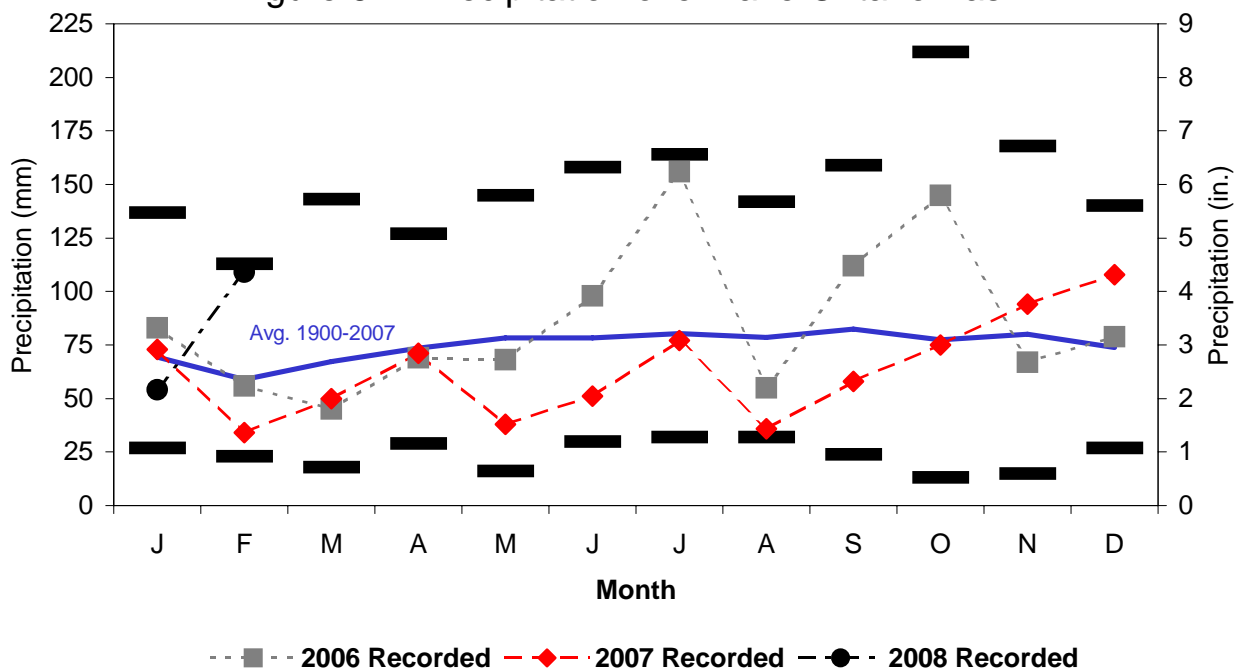
**Table 2 Provisional Precipitation Over the Great Lakes and Lake Ontario Basins**

Month	Great Lakes Basin			Lake Ontario Basin		
	mm (inches) <sup>(1)</sup>	% of LTA <sup>(1)</sup>	Exceed. Prob. <sup>(2)</sup>	mm (inches) <sup>(1)</sup>	% of LTA <sup>(1)</sup>	Exceed. Prob. <sup>(2)</sup>
Sep 07	88 (3.48)	102	44	58 (2.27)	71	78
Oct 07	98 (3.85)	134	14	75 (2.97)	96	50
Nov 07	56 (2.19)	80	76	94 (3.69)	118	28
Dec 07	77 (3.02)	128	12	108 (4.27)	146	7
Jan 08	67 (2.65)	120	24	54 (2.13)	78	76
Feb 08	69 (2.70)	153	6	109 (4.30)	185	1

<sup>(1)</sup> Based on period of record 1900-2007

<sup>(2)</sup> Based on period of record 1900-1999

**Figure 6 Precipitation over Lake Ontario Basin**

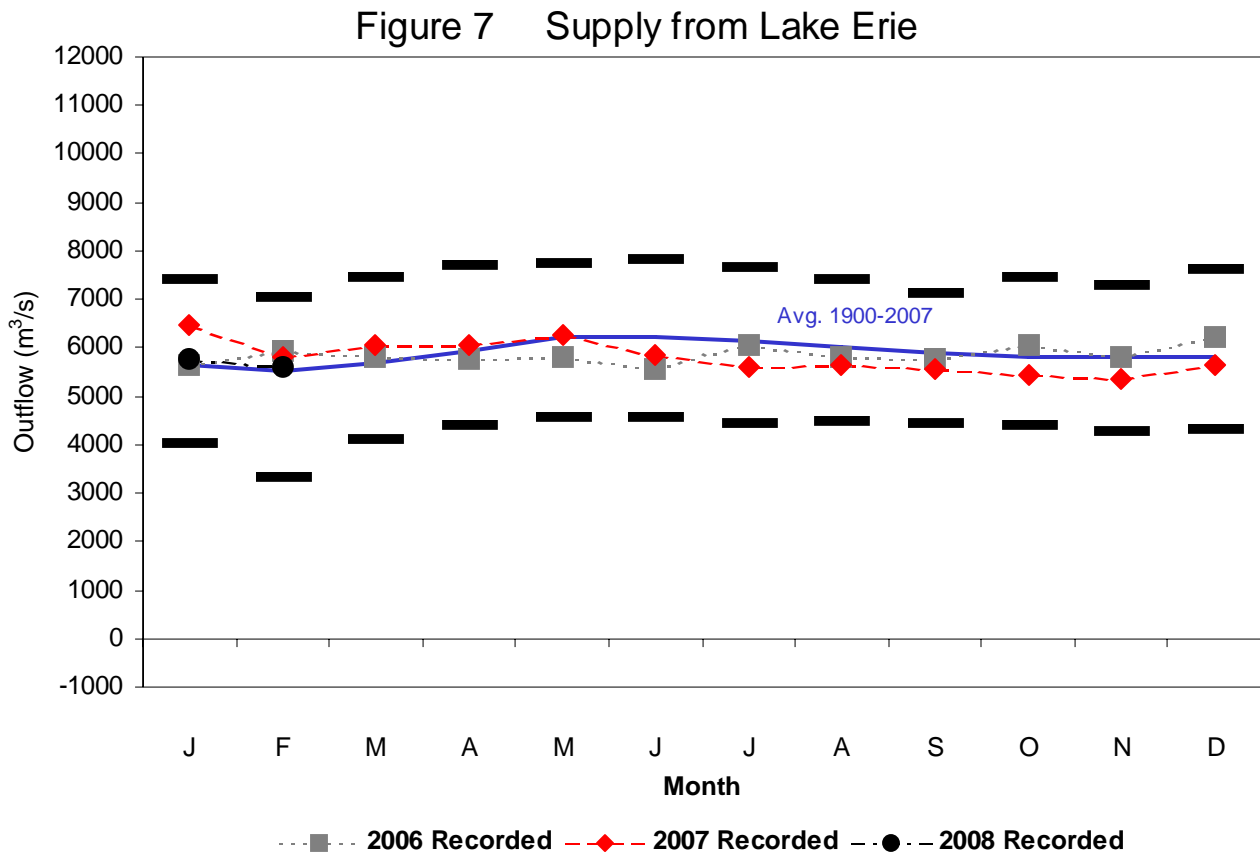


### 1.1.2 Snow-pack on the Lake Ontario Basin

Based on limited information, the water content of the Lake Ontario basin snowpack during the first part of March was estimated as being above average, and significant snow fell during the second week of March. Because of the limited data, it is difficult to forecast the volume of spring runoff. Based on available data, the snowmelt may be above average.

### 1.2 Supply from Lake Erie

The inflows to Lake Ontario from Lake Erie during the reporting period are provided in Table 1 and shown graphically in Figure 7. With Lake Erie below average much of the reporting period, its flow to Lake Ontario was also generally below average, climbing above average since January.



### 1.3 Lake Ontario – Net Total Supply

The monthly net total supplies to the Lake are provided in Table 1 and shown graphically in Figure 8. The six-month net total supplies for the 10-year period 1998 through 2008 are provided in Table 3 and Figure 9 for comparison purposes. The monthly net total supplies were below average during September, October, and November, and above average in December, January and February. The above average supplies the past three months were primarily due to well above average precipitation and runoff on the local basin. Overall, the total supply was 102 % of average during this reporting period.

Figure 8 Net Total Supply to Lake Ontario

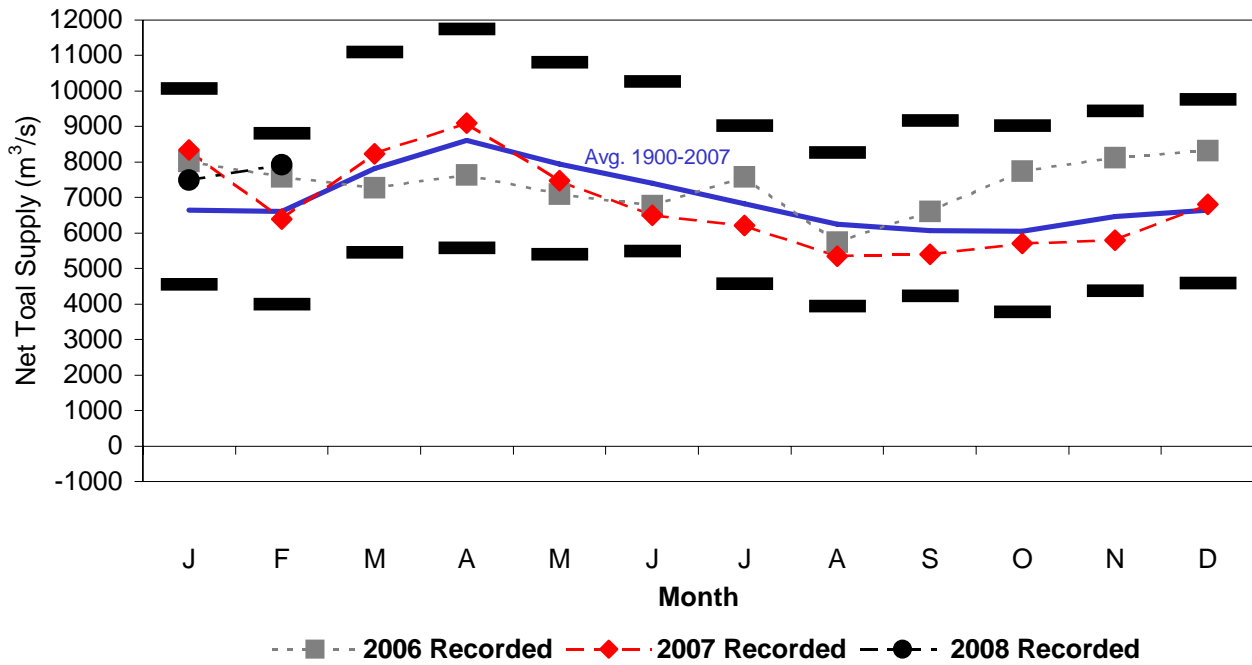
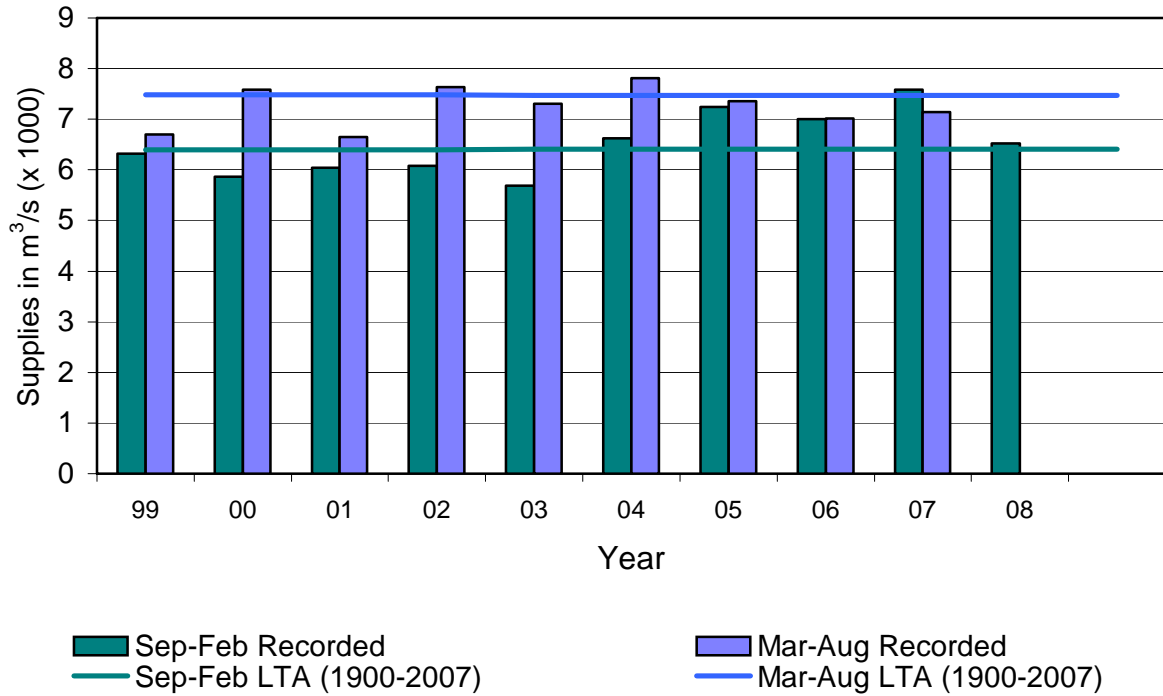


Table 3 Average and Recorded Six-Month Supplies (Sep-Feb)

	Long-Term Average <sup>(1)</sup>		Recorded			Recorded Below (-) or Above Average (+)		
	(m <sup>3</sup> /s)	(tcfs)	(m <sup>3</sup> /s)	(tcfs)	Exceed. Prob. <sup>(1)</sup>	(m <sup>3</sup> /s)	(tcfs)	Percent
Sep 98 - Feb 99	6410	226	6320	223	52	-90	-3	-1
Sep 99 - Feb 00	6410	226	5860	207	72	-550	-19	-9
Sep 00 - Feb 01	6410	226	6040	213	64	-370	-13	-6
Sep 01 - Feb 02	6410	226	6080	215	62	-330	-12	-5
Sep 02 - Feb 03	6410	226	5690	201	79	-720	-25	-11
Sep 03 - Feb 04	6410	226	6620	234	38	210	7	3
Sep 04 - Feb 05	6410	226	7240	256	17	830	29	13
Sep 05 - Feb 06	6410	226	7000	247	24	590	21	9
Sep 06 - Feb 07	6410	226	7590	268	9	1180	42	18
Sep 07 - Feb 08	6410	226	6520	230	44	110	4	2

<sup>(1)</sup> Based on period of record 1900-2007

Figure 9 Lake Ontario Average & Recorded Net Total Six-Month Supplies



#### 1.4 Ottawa River Basin

During the reporting period, Ottawa River outflows were generally well below average and much lower than those of last year until mid-January, and have been above average since. Snow pack on the Ottawa River basin in early March was above average.

## **2 REGULATION OF FLOWS & LEVELS**

### **2.1 Application of Regulation Plan 1958-D**

The Board assures that the provisions of the Commission's Orders of Approval relating to Lake Ontario-St. Lawrence River outflows and levels are met. The control of the outflows and levels of Lake Ontario and the St. Lawrence River follows a regulation plan that was designed to satisfy the criteria and other requirements set out in the Commission's Orders. The current plan of regulation is "Plan 1958-D". This was adopted by the Commission in 1963.

Over the years, there have been changes in the needs and desires of the various interests, so the Commission authorized the Board (in 1961) to deviate from the outflows specified by the regulation plan in order to provide additional benefits to interests, when this can be done without appreciable adverse effects to other interests. Today, the Board reviews conditions in the Great Lakes and Lake Ontario-St. Lawrence River basins at least monthly, and establishes outflow strategies for the coming weeks that may or may not include deviations from Plan flows.

The outflow from Lake Ontario is computed weekly by following the procedure laid out in the Board's July 1963 Report to the Commission on Regulation Plan 1958-D. The computational procedure includes the following steps (the reader is referred to the Board's 1963 Report for additional details and considerations):

- Calculation of a provisional flow based on present conditions in the system (e.g., recent supplies and current levels);
- Checking the provisional outflow against operational limits designed to protect interests; and,
- Setting a final "Plan" outflow.

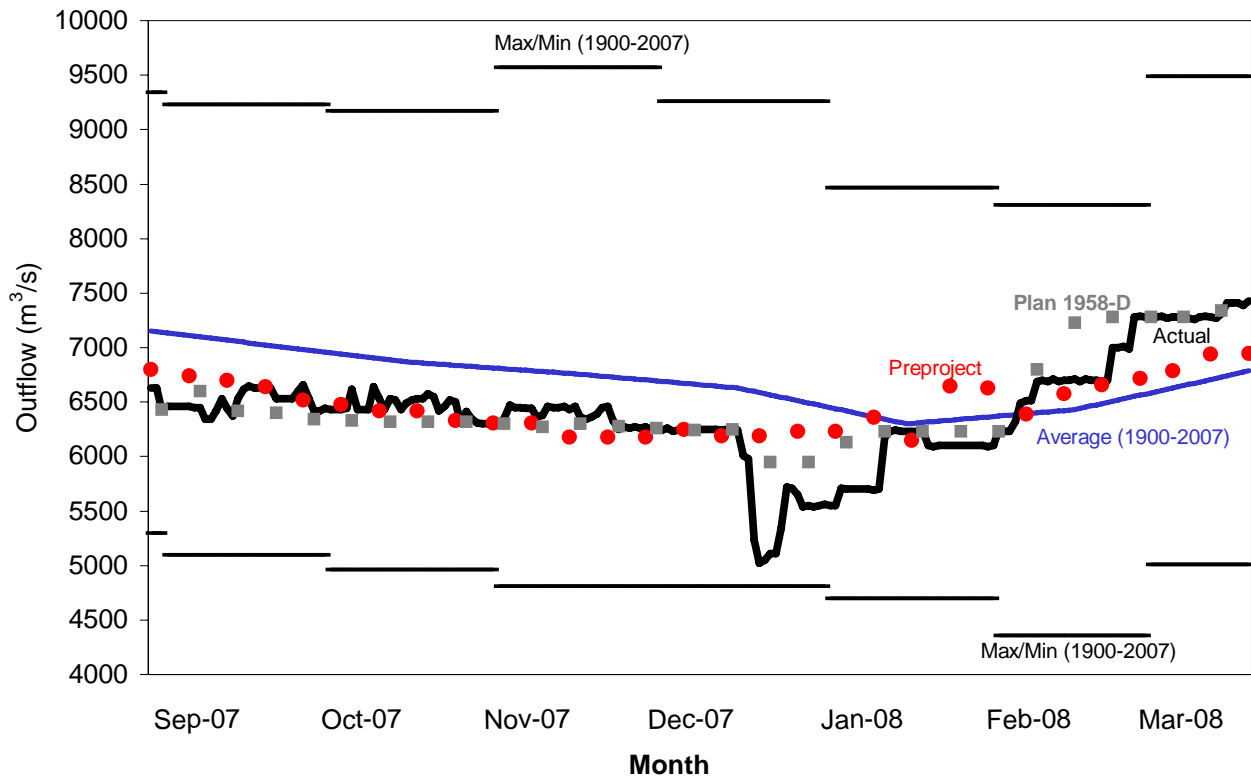
The Plan outflow is then reviewed by the Board's Regulation Representatives and Operations Advisory Group (OAG), and assessed against the Board's current outflow strategy and the current operational requirements for domestic water supply, navigation, hydropower, and others. If all are in agreement, the Regulation Representatives, on behalf of the Control Board, recommend an outflow for the week to the Government representatives responsible to direct the hydropower entities (who operate the structures that control the outflows) to release the outflow for the coming week. If not all of the OAG members or Regulation Representatives can agree on the flow for the coming week, the Control Board is called upon to decide.

To aid in decision making, the Board analyzes the risk of exceeding the criteria of the Orders and other water level indicators established by the Board through experience.

### **2.2 Board's Regulation Strategies and Resulting Actions**

In order to be responsive to changing conditions and the needs of interests, the Board held 3 monthly teleconferences and 2 meetings that reviewed conditions in the Great Lakes-St. Lawrence River system, developed short-term and long-term outflow strategies, and ensured that it would be able to offer assistance to interests in times of need. These strategies are designed to enhance the benefits provided by regulation while not significantly impacting interests adversely. The strategies for the reporting period, and their rationale, are summarized on pages 21 to 25 of this report. In summary, the Board released outflows below those prescribed by Plan 1958-D in order to restore the accumulated overdischarges of last winter and spring. At that time, the Board had been concerned of the risk of high water levels to shoreline property interests. With the advent of low water supplies, the Board attempted to restore the water at a rate that did not cause undue harm to interests. Due to the low water supplies, the Board also authorized releasing more water than specified by the regulation plan in order to maintain sufficient water levels on Lake St. Louis for navigation purposes. Figure 10 shows the Lake Ontario outflows for the reporting period.

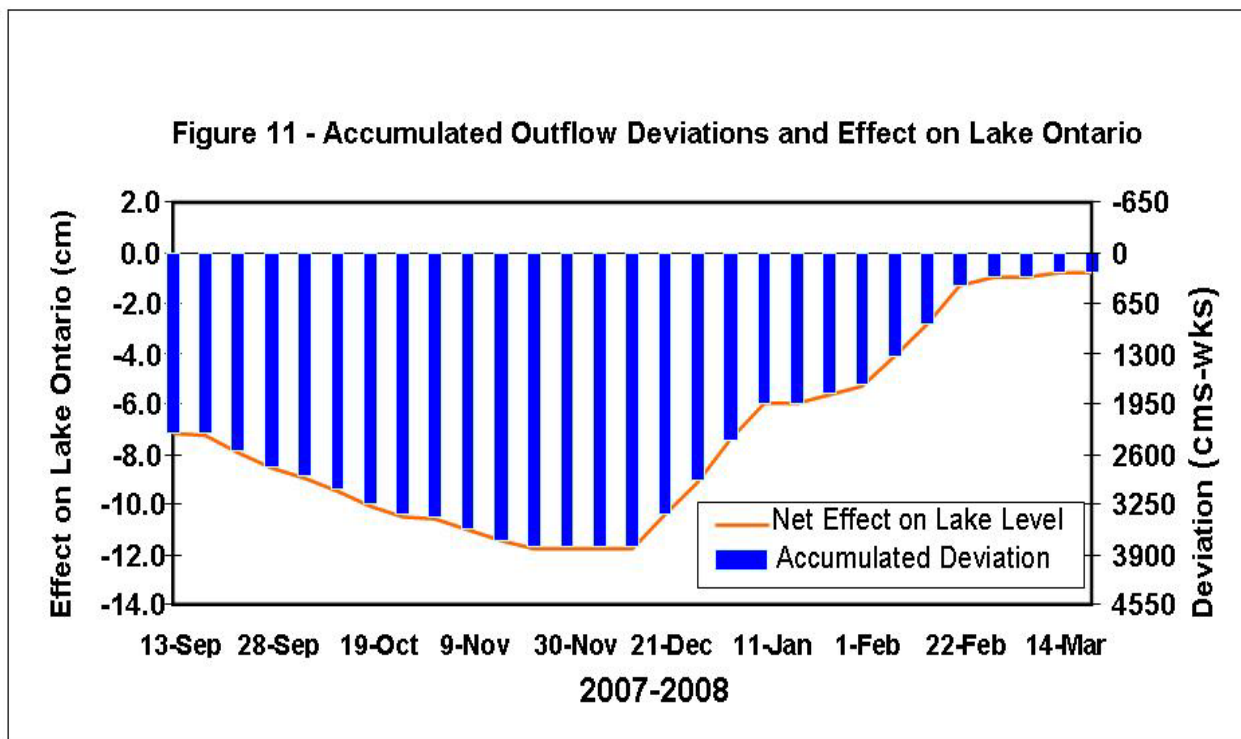
Figure 10 Lake Ontario Daily Outflows



### 2.2.1 Deviations from Regulation Plan 1958-D

Figure 11 and Table 4 summarize the Board's discretionary deviations during the reporting period. On September 13, accumulated deviations carried forward into the reporting period amounted to 7.2 cm (2.8 in.) overdischarged from Lake Ontario. Outflows were increased a number of times until the end of the navigation season in order to provide sufficient draft through Lake St. Louis and at the Port of Montreal. In October, the Board released additional water to help refloat a ship that had struck bottom and punctured its hull, and to assist with haulout of recreational boats on Lake St. Louis.

To assist in formation of a stable, secure ice cover, an extensive series of flow reductions were undertaken. From mid-December to the end of February, the Board released flows less than those prescribed by Plan 1958-D every day, except for 8 days. These underdischarges for ice management effectively eliminated the accumulated overdischarges. At the end of the reporting period about 0.8 cm (0.3 in.) of overdischarge remained.



### 2.2.2 Ice Management

Ice booms were placed in the international section of the St. Lawrence River by the Power Entities, beginning on November 15. Following passage of the last commercial vessel on December 28, the last booms that cross the navigation waterway were closed on December 31.

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

Date 2007-2008	Deviation (cms)	Dev. (cms- wks)	Acc. Dev. rounded (cms- wks)	Cum. Effect on Lake Ont. rounded (cm)	Reason for Deviation  (LSL = Lake St. Louis) (LSF = Lake St. Francis)
Sep 12			2340	-7.2	
Sep 13	-90 for 15 hrs	-8			To restore water
Sep 13-14	10 for 22 hrs	1			To maintain LSL levels above 20.6 m
Sep 14	210 for 11 hrs	14	2350	-7.3	To maintain LSL levels above 20.6 m
Sep 15-20	230 for 144 hrs	197			To maintain LSL levels above 20.6 m
Sep 21	130 for 24 hrs	19	2570	-8.0	To maintain LSL levels above 20.6 m
Sep 22-25	190 for 89 hrs	101			To maintain LSL levels above 20.6 m
Sep 25-26	390 for 24 hrs	56			Port of Montreal request
Sep 26-27	190 for 31 hrs	35			To maintain LSL levels above 20.6 m
Sep 28	90 for 24 hrs	13	2770	-8.6	To maintain LSL levels above 20.6 m
Sep 29-Oct 4	100 for 144 hrs	86			To maintain LSL levels above 20.6 m
Oct 5	300 for 24 hrs	43	2900	-9.0	Port of Montreal request
Oct 6-9	110 for 89 hrs	58			To maintain LSL levels above 20.6 m
Oct 9-10	710 for 12 hrs	51			Seaway request – to move damaged ship
Oct 10-12	110 for 55 hrs	36			To maintain LSL levels above 20.6 m
Oct 12	300 for 12 hrs	21	3070	-9.5	Aid downstream rec. boaters with haul-out

Oct 13	300 for 12 hrs	21			Aid downstream rec. boaters with haul-out
Oct 13-15	110 for 49 hrs	32			To maintain LSL levels above 20.6 m
Oct 15-19	210 for 96 hrs	120			To maintain LSL levels above 20.6 m
Oct 19	310 for 11 hrs	20	3260	-10.1	To maintain LSL levels above 20.6 m
Oct 20	310 for 14 hrs	26			To maintain LSL levels above 20.6 m
Oct 20-22	110 for 51 hrs	33			To maintain LSL levels above 20.6 m
Oct 22-24	210 for 43 hrs	54			To maintain LSL levels above 20.6 m
Oct 24	110 for 12 hrs	8			To maintain LSL levels above 20.6 m
Oct 26	80 for 24 hrs	11	3390	-10.5	To maintain LSL levels above 20.6 m
Oct 27	130 for 14 hrs	11			To maintain LSL levels above 20.6 m
Oct 27-Nov 2	20 for 148 hrs	18			Unintentional – minor operational deviation
Nov 2	-330 for 6 hrs	-12	3410	-10.6	To maintain LSL levels above 20.6 m
Nov 3-7	190 for 112 hrs	127			To maintain LSL levels above 20.6 m
Nov 7-9	90 for 48 hrs	26			To maintain LSL levels above 20.6 m
Nov 9	170 for 8 hrs	8	3570	-11.1	To maintain LSL levels above 20.6 m
Nov 10-15	150 for 144 hrs	129			To maintain LSL levels above 20.6 m
Nov 16	50 for 24 hrs	7	3710	-11.5	To maintain LSL levels above 20.6 m
Nov 17-19	70 for 61 hrs	25			To maintain LSL levels above 20.6 m
Nov 19	170 for 59 hrs	60			To maintain LSL levels above 20.6 m
Nov 22	70 for 18 hrs	8			To maintain LSL levels above 20.6 m
Nov 22-23	-20 for 30 hrs	-4	3800	-11.8	To restore water
Dec 1-7	10 for 168 hrs	10	3810	-11.8	Unintentional – minor operational deviation
Dec 8-14	-10 for 168 hrs	-10			To restore water
Dec 8-14	10 for 168 hrs	10	3810	-11.8	Unintentional – minor operational deviation
Dec 15	290 for 24 hrs	41			To maintain LSL levels above 20.6 m
Dec 16-17	50 for 37 hrs	11			To maintain LSL levels above 20.6 m
Dec 18	-950 for 10 hrs	-57			Ice Jam at Beauharnois – High LSF level
Dec 18	-750 for 5 hrs	-22			Ice Jam at Beauharnois – High LSF level
Dec 18-20	-950 for 43 hrs	-243			Ice Jam at Beauharnois – High LSF level
Dec 20-21	-850 for 32 hrs	-162	3380	-10.5	Ice Jam at Beauharnois – High LSF level
Dec 22-23	-850 for 35 hrs	-177			Maintain stable ice cover in Beauharnois Canal
Dec 23	-550 for 6 hrs	-20			Low LSL level/Drinking Water Constraint
Dec 23-26	-250 for 69 hrs	-103			Low LSL level/Drinking Water Constraint
Dec 26-28	-370 for 58 hrs	-128	2950	-9.1	Maintain ice cover in Beauharnois/restore water
Dec 29-Jan 3	-580 for 135 hrs	-466			Maintain ice cover in Beauharnois/restore water
Jan 3	-80 for 7 hrs	-3			Assist in Ice Formation/To restore water
Jan 3-4	-430 for 26 hrs	-67	2410	-7.5	Assist in Ice Formation/To restore water
Jan 5-10	-530 for 144 hrs	-454			Assist in Ice Formation/To restore water
Jan 11	-60 for 24 hrs	-9	1950	-6.0	Assist in Ice Formation/To restore water
Jan 19-25	-130 for 168 hrs	-130	1820	-5.6	Assist in Ice Formation
Jan 26-31	-130 for 144 hrs	-110	1710	-5.3	Assist in Ice Formation
Feb 2-4	-570 for 64 hrs	-217			Assist in Ice Formation
Feb 4-7	-300 for 80 hrs	-143			Maintain stable ice cover
Feb 8	-100 for 24 hrs	-14	1340	-4.1	Maintain stable ice cover
Feb 9-15	-420 for 168 hrs	-420	920	-2.8	Maintain stable ice cover
Feb 16-21	-530 for 144 hrs	-454			Maintain stable ice cover
Feb 22	-230 for 24 hrs	-33	430	-1.3	Maintain stable ice cover
Feb 23-25	-280 for 72 hrs	-120	310	-1.0	Maintain stable ice cover
Mar 8-14	-60 for 168 hrs	-60	250	-0.8	Hydropower-Unit Maintenance

Ice formation began in the Beauharnois Canal on December 17 and stalled the next day. A warm spell then melted the ice cover. The boom broke on December 17 due to fast ship movement in a newly formed ice cover. The ice cover reformed in the Beauharnois Canal from January 30 to February 8 and began to form in the international section of the river, upstream of the Moses-Saunders Dam, on January 25. The gates at Iroquois Dam were dipped slightly to facilitate ice cover formation. However, a lack of very cold weather hindered forming a solid ice cover. The ice cover began to slowly dissipate in the first week of March. Ice remained on Lake St. Francis and in the Beauharnois Canal at the end of the reporting period. The cover photos show the extensive ice cover in the river this year.

The opening of the Montreal-Lake Ontario section of the Seaway is scheduled for March 22. This will be preceded by opening of the A and G Booms (scheduled for March 20). All of the booms were in place at the end of the reporting period. This was the most difficult year for ice management in recent memory.

### 2.2.3 Iroquois Dam Operations

Under the conditions of paragraph (j) of the Commission's Order of Approval dated 29 October 1952, the power entities are permitted to operate Iroquois Dam with Board approval. The gates of the dam can be lowered into the water to assist in the ice formation process, and to reduce the level of Lake St. Lawrence when there are low outflows. The gates at Iroquois Dam were dipped from February 15 through March 19 to assist in the formation and stabilization of the ice cover.

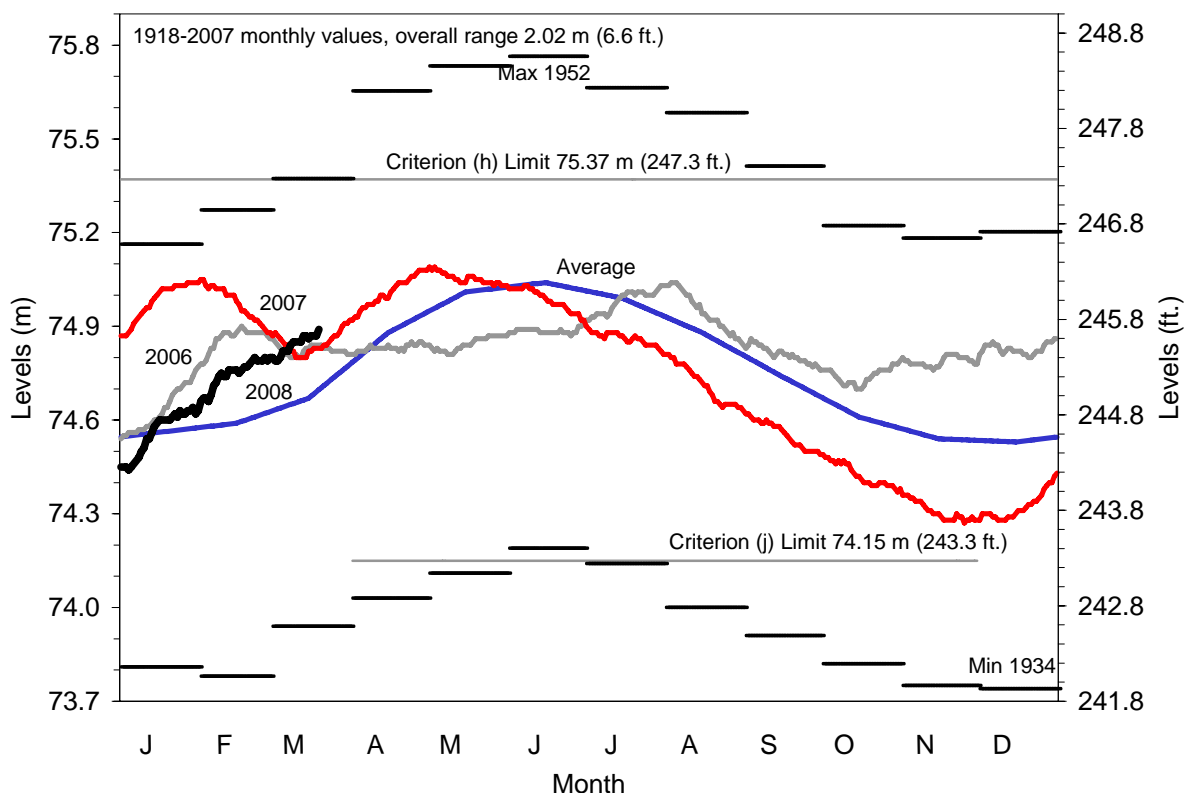
## 2.3 Results of Regulation

### 2.3.1 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 12. For comparison purposes, the daily levels of 2006, 2007, and 2008 to the end of the reporting period are shown. During the reporting period, levels started well below long-term average, and fell to their seasonal low on November 25, some 26 cm (10.2 in) below long-term average. The levels then rose sharply in response to the higher water supplies and the reduced outflows necessary for ice management. At the beginning of March, the level was about 17 cm (6.7 in) above the long-term average. The level rose in response to precipitation and some melting of the snowpack and ended the reporting period at 74.89 m (245.70 ft), about 22 cm (8.7 in) above average.

Figure 12 Water Level on Lake Ontario

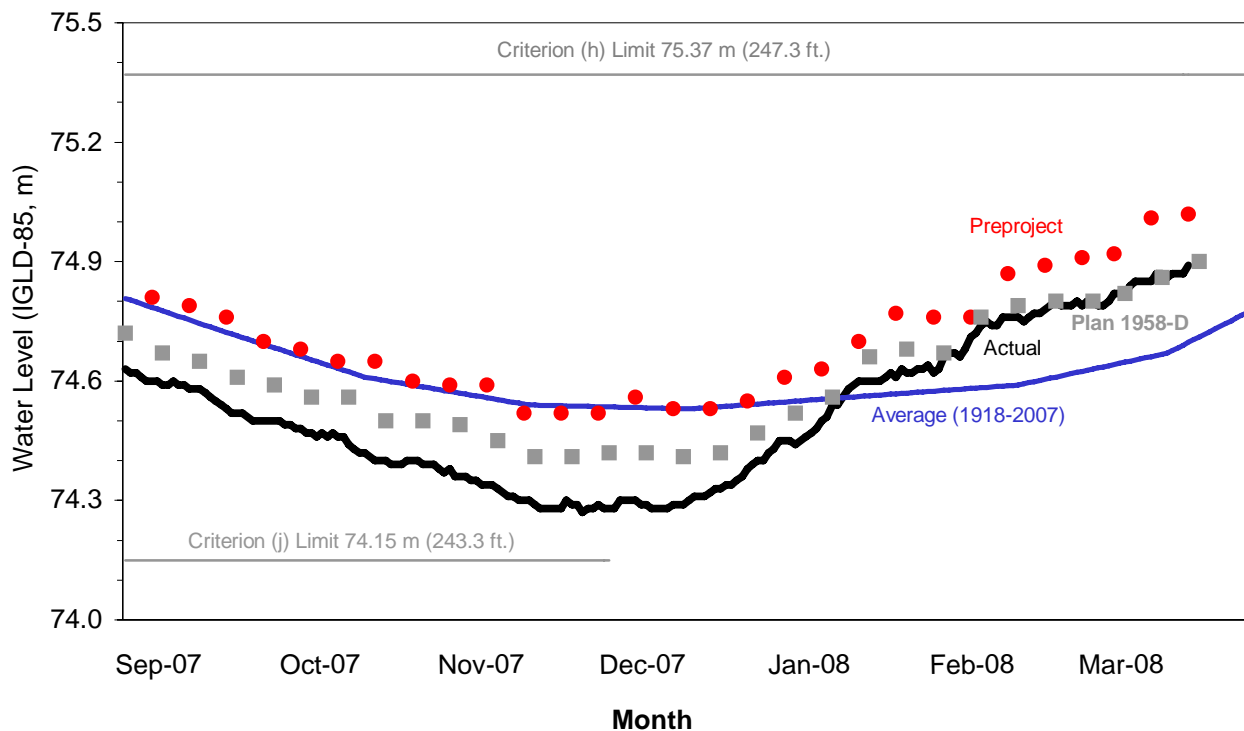


As a means of determining the impact of regulation activities on levels and outflows, the Board provides the Commission with a comparison of Lake Ontario's actual monthly levels and outflows to those that would have been obtained under pre-project conditions (that is, the levels and outflows that would have occurred had regulation not been undertaken). A summary of this comparison for the reporting period is given in Table 5. This shows that, Lake Ontario was about 12 - 23 cm (0.39 – 0.75 ft.) lower during the reporting period than it would have been without regulation. A comparison of the daily levels to long-term average, and weekly computed Plan 1958-D levels and preproject conditions is shown in Figure 13.

**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 m <sup>3</sup> /s (tcfs)		
	Recorded	Pre-project	Diff.	Recorded	Pre-project	Diff.
Sep 07	74.56 (244.62)	74.76 (245.27)	-0.20 (-0.65)	6500 (230)	6620 (234)	-120 (-4)
Oct 07	74.42 (244.16)	74.63 (244.85)	-0.21 (-0.69)	6450 (228)	6380 (225)	70 (2)
Nov 07	74.31 (243.80)	74.53 (244.52)	-0.22 (-0.72)	6370 (225)	6210 (219)	160 (6)
Dec 07	74.32 (243.83)	74.55 (244.58)	-0.23 (-0.75)	5850 (207)	6230 (220)	-380 (-13)
Jan 08	74.56 (244.62)	74.71 (245.11)	-0.15 (-0.49)	5990 (212)	6520 (230)	-530 (-19)
Feb 08	74.75 (245.24)	74.87 (245.63)	-0.12 (-0.39)	6740 (238)	6610 (233)	130 (5)

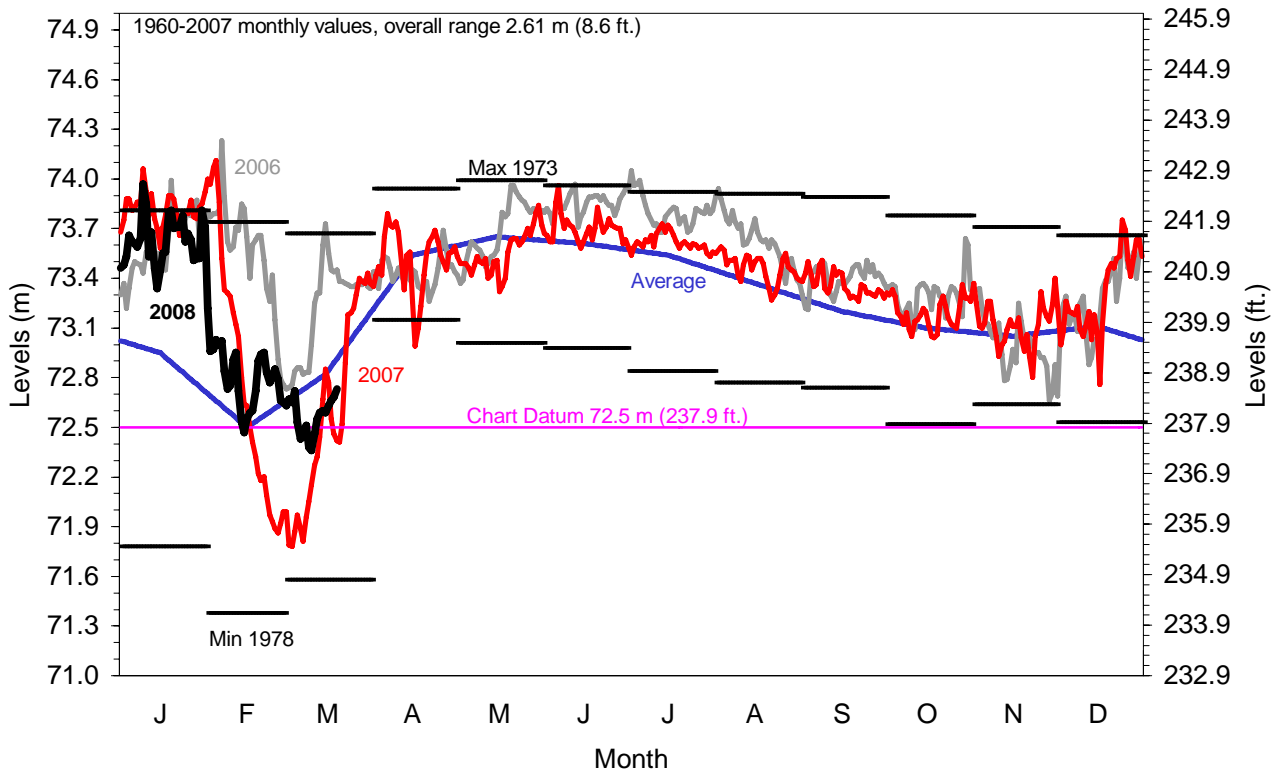
Figure 13 Lake Ontario Actual, Preproject & Plan Levels



Lake St. Lawrence

During the reporting period, the water levels of Lake St. Lawrence started the reporting period near average, and then fluctuated around average until mid-December (Figure 14). The levels then rose sharply due to low Lake Ontario outflows and a lack of ice cover upstream. Levels in January and February were well above average, with levels in January fluctuating near the record high monthly average. By the end of the reporting period, a significant ice cover remained but the level of Lake St Lawrence was expected to be above chart datum when Seaway navigation opens on March 22.

Figure 14 Water Level on Lake St. Lawrence (at Long Sault Dam)

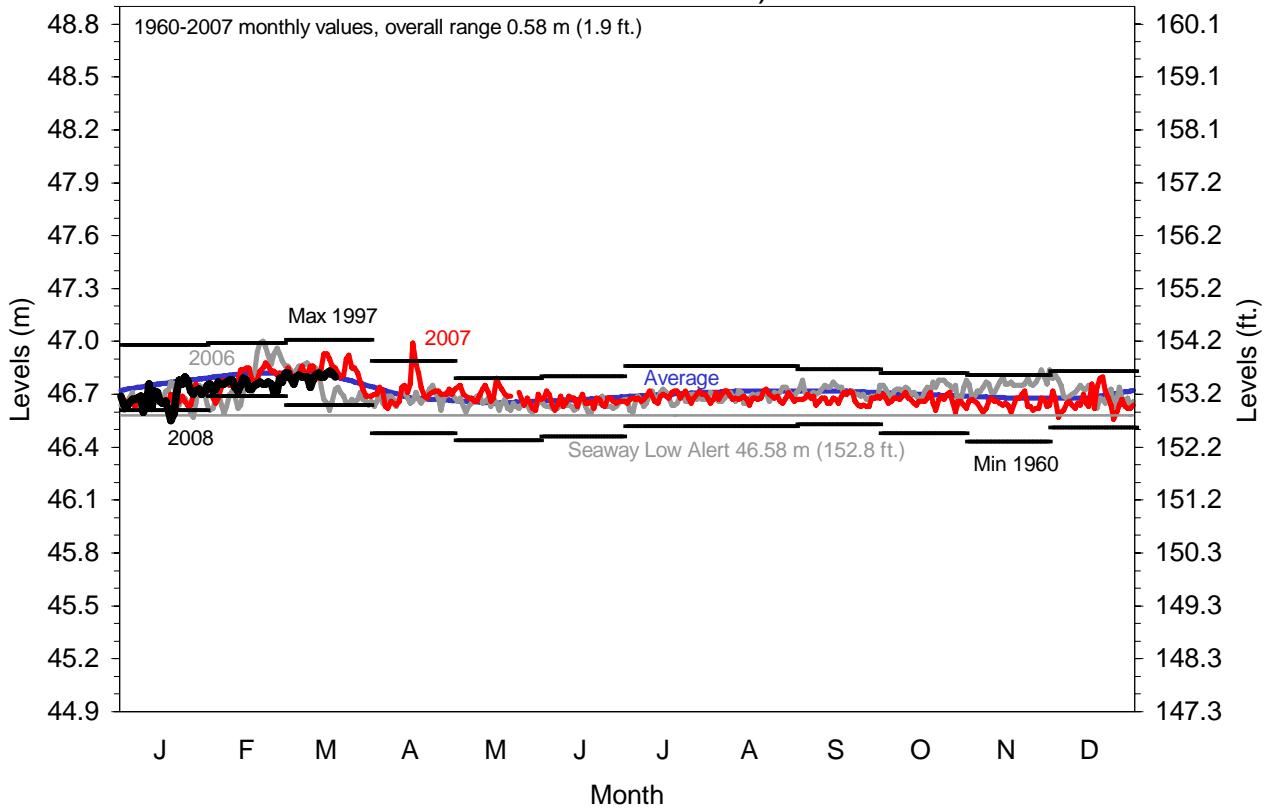


### 2.3.2 Downstream

#### Lake St. Francis

The regulation of Lake Ontario outflows has a limited effect on the levels of Lake St. Francis, since this body of water is, in turn, regulated by hydropower plant operations at Beauharnois and Les Cedres, Quebec. The historic range of monthly mean levels of Lake St. Francis since completion of the Moses-Saunders project is about 1/5 that of Lake St. Lawrence. Daily water levels at Summerstown on Lake St. Francis were generally below average throughout the reporting period (Figure 15). Levels were above the Seaway Low Alert level except for three days during the reporting period and two days during the navigation season.

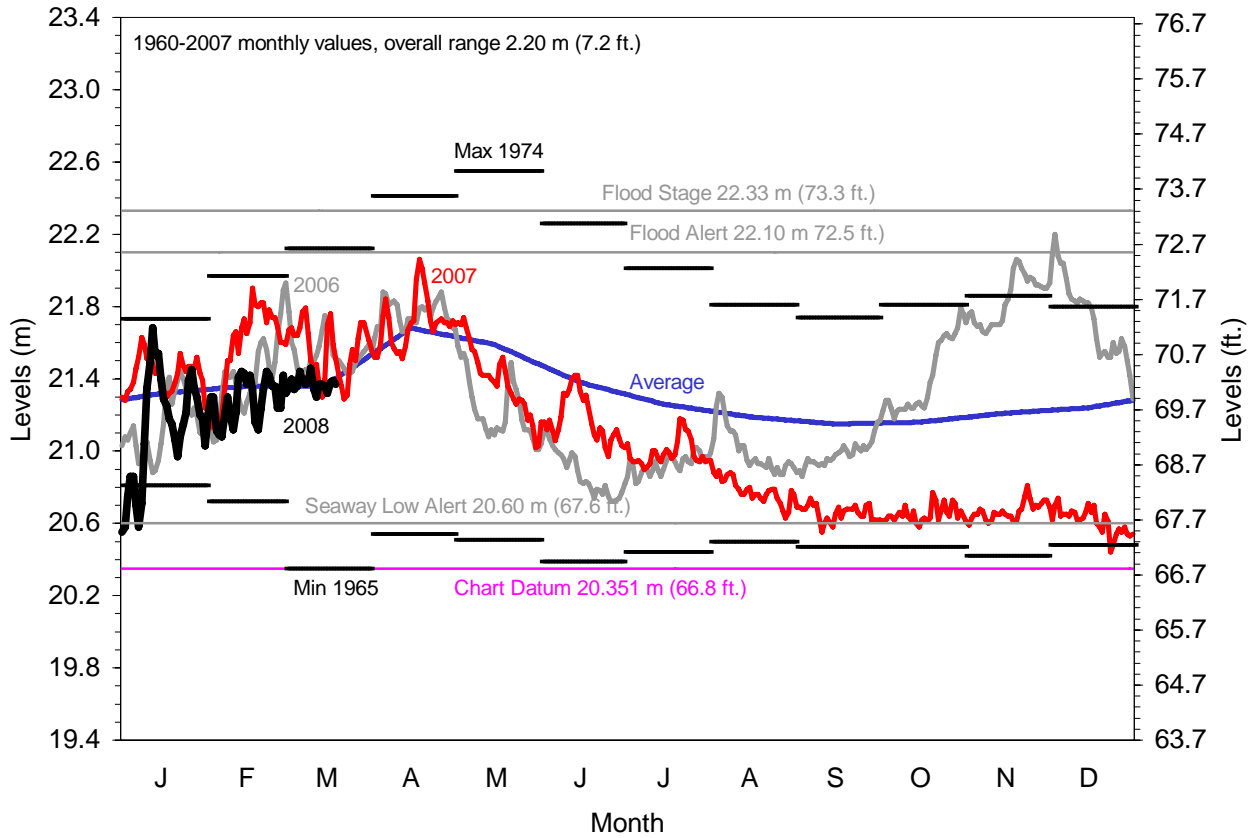
Figure 15 Water Level on Lake St. Francis (at Summerstown)



**Lake St. Louis**

Lake St. Louis water levels are influenced by the discharges of both the St. Lawrence and Ottawa Rivers. Daily water levels on Lake St. Louis (Figure 16) were generally well below average (based on the period 1960 through 2007) until early January, and then near average the rest of the reporting period. The Board overdischarged often from September 13 through December 17 to maintain levels at or above the Seaway Low Alert level (20.6 m, or 67.6 ft). Levels were below the record monthly minimums for several days in December and January. Following the close of Seaway navigation, the Board's strategy was to assure that levels remained above 20.5 m (67.7 ft) for water intake purposes. Levels were well below the flood alert level of 22.10 m (72.5 ft).

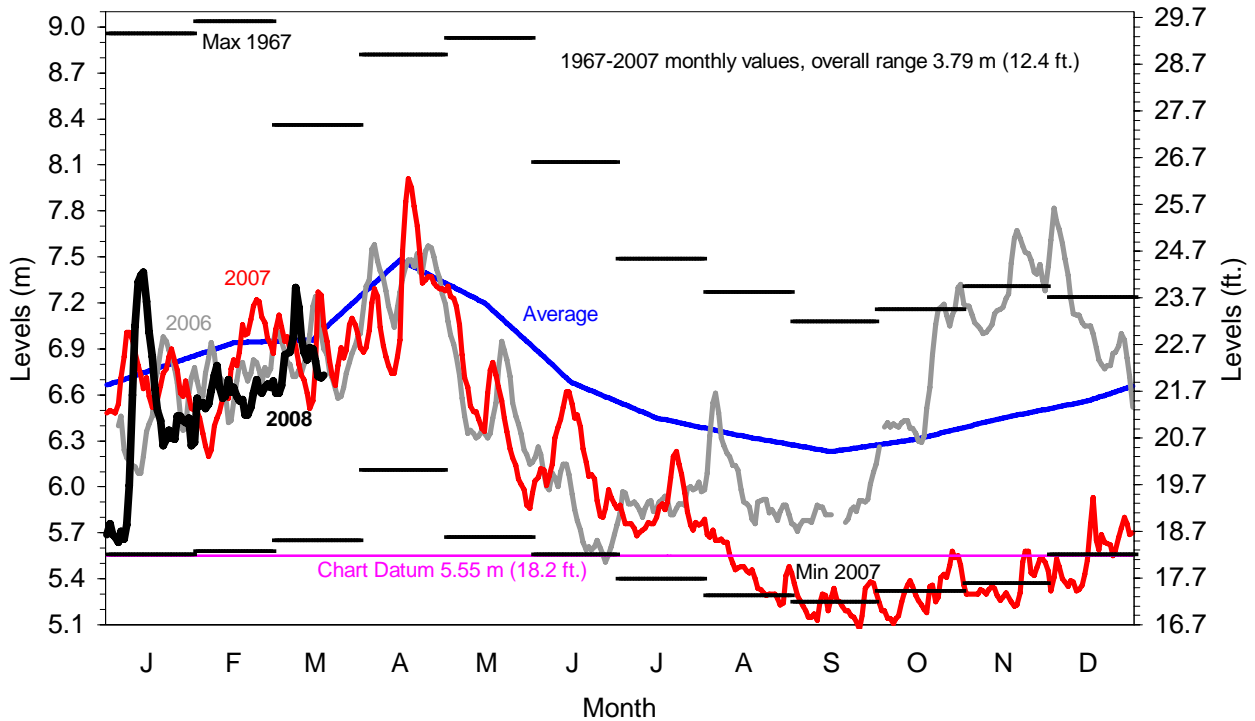
Figure 16 Water Level on Lake St. Louis (at Pointe-Claire)



Port of Montreal

The fluctuations of the water level at the Port of Montreal are influenced by the flows of the St. Lawrence and Ottawa Rivers, winds, the tide, and, in the winter, by downstream ice conditions. The daily levels at the Port (Figure 17) generally remained well below average until briefly in mid-January, and then were again generally below average the rest of the reporting period. September, October, November and December established new record low monthly averages. Levels at the Port were generally below chart datum from the beginning of the reporting period to mid-December, adversely impacting port operations and vessel loadings.

Figure 17 Water Level in the Port of Montreal (at Jetty #1)



### 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; 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 Gauging Committee performed an annual inspection of the water level gauging network from October 9 to 19, 2007 and worked to clear a backlog of annual reports on water levels and attend to several gauge operation and maintenance issues.

The Board continued to schedule meetings and monthly conference calls to assess conditions in the basin and adjust its regulation strategy accordingly. During the reporting period, the Board held meetings on October 16 in Ottawa, and March 18-19 in Rochester. Board teleconferences were held during November, December, and January. Table 6 provides a list of Board Members in attendance at these meetings and teleconferences.

#### 3.2 Meetings with the Public and Input from the Public

The Board held public teleconferences on September 18 and March 18 to inform the public on conditions (recent, forecast) and Board activities, as well as to receive public input about local conditions and concerns related to water levels and flows in Lake Ontario and the St. Lawrence River. The Board posted materials on its web site prior to each teleconference to allow people calling in to follow the Board

presentation. About 22 members of the public called in for the September teleconference, and 37 for the March teleconference. The Board heard comments on the regulation strategy, local conditions, permits for dredging and other work, and received questions regarding the new regulation plan.

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 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. In addition, the Board worked with Commission staff to develop communications improvements, but the level of available funding will not be sufficient to implement identified improvements.

#### **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. The Committee prepared a communications strategy which highlights the need for adequate full-time communication resources (Appendix II). The Board approved this at its March meeting and directed that it be forwarded to the IJC for its support in implementation.

Communication activities during the reporting period included:

- Preparation of news 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;
- 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 1-800-883-6390, 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.islrbc.org>) The Page includes:
  - Weekly updates on water levels and outflows;
  - General information about the Board, its activities and its structure;
  - Announcements about Board-related public meetings and events
  - 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.

The Board's Regulation Representatives send out weekly updates on Lake Ontario regulation and water level and outflow conditions, to a list of about 153 e-mail subscribers. Stakeholders are encouraged to subscribe to this free service.

## **5 RIVER GAUGING COMMITTEE REPORT**

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. The Committee is responsible for annual inspections of the water level gauging network and provides the Board with a report on inspection results and the computed outflows. The 69<sup>th</sup> (2005) report was submitted to the Board on October 16 and accepted on November 14. The 70<sup>th</sup> (2006) report audit was accepted by the Committee on March 10 and will be submitted to the Board in the near future. The draft 2007 report is being coordinated for submittal to the Board.

### **5.1 Raisin River**

The Raisin River Diversion was open from June 27 to October 3, 2007. The diverted outflow was typically about 0.04 – 0.06 m<sup>3</sup>/s).

### **5.2 Water Level Gauges**

The Board's Committee on River Gauging ensures the accuracy of flow 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 performed an annual inspection of the water level gauging network from October 9 to 19, 2007 and worked to clear a backlog of annual reports on water levels and attend to several gauge operation and maintenance issues.

### **5.3 Turbine Upgrades**

Moses Unit 27 was removed from service for upgrade to an Alstom turbine on February 1, 2007 and was returned to service on October 31. Unit 28 was removed from service for similar upgrading on November 13 and is expected to return to service on May 30, 2008. Flows through the upgraded (former Allis-Chalmers) units are calculated using an Interim Rating Table. A final rating table is expected to be reviewed by the Board following further field tests performed in September and October 2007 for the former Baldwin-Lima-Hamilton units previously upgraded to the Alstom turbines.

## **6 ST. LAWRENCE SEAWAY REPORT**

Navigation ceased in the Montreal-Lake Ontario Section with the passage of the last downbound commercial vessel, the "Birchglen" through Snell and St. Lambert Locks on December 28. The last upbound vessel, the "Pineglen" cleared Cape Vincent on December 28.

The Seaway navigation season is expected to open on March 22.

The Seaway reduced the maximum permissible draft in the Montreal-Lake Ontario section, from 80.8 dm (26'-6") to 80.0 dm (26'-3") on September 1, 2007, in response to lower water levels in the upper portion of the south shore canal and Lake St. Louis. Lake Ontario outflows were augmented from September 13 through December 18, 2007 to maintain levels on Lake St. Louis above the Seaway Low Alert of 20.6 m (67.6 ft.) at Pointe-Claire. The St. Lawrence Seaway Management Corporation carefully monitored water levels in the South Shore Canal, which remained near the Low Alert during this period. Dredging will be performed to

reduce the incidence of high spots in the South Shore Canal. The Board increased outflows for 12 hours October 9-10 to assist in the movement of a ship that punctured its hull upon going aground in Lake St. Louis.

## **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. The Commission's approval requires a 5-year review of the impacts of peaking and ponding. The Board recommended to the IJC in August 2005 that peaking and ponding operations be continued for another 5 years. In October 2005 the IJC renewed the approval for peaking and ponding for a 2-year period. On September 12, 2007, the IJC renewed the approval for a 1-year period, or until a new approval is issued, whichever comes first.

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

## **8 BOARD AND COMMITTEE MEMBERSHIP CHANGES**

Board Members had their appointments renewed through the end of 2008, or until the Commission makes changes pursuant to the Lake Ontario St. Lawrence River Study, whichever comes first. There is a vacancy on each section of the Board.

Respectfully submitted,

**MEMBERS FOR THE UNITED STATES**

**MEMBERS FOR CANADA**

\_\_\_\_\_  
**BG B.A. BERWICK, CHAIR**

\_\_\_\_\_  
**J. LORQUET, CHAIR**

\_\_\_\_\_  
**J. BERNIER**

\_\_\_\_\_  
**A. CARPENTIER**

\_\_\_\_\_  
**T. HULLAR**

\_\_\_\_\_  
**B. METCALFE**

\_\_\_\_\_  
**F. SCIREMAMMANO**

\_\_\_\_\_  
**P. YEOMANS**

**Table 6**

**Attendance at Meetings and Teleconferences (September 13, 2007 - March 19, 2008)**

<b>Board Member</b>	<b>Country</b>	<b>Oct. 16 Mtg..</b>	<b>Nov 14 T. Conf.</b>	<b>Dec. 12 T. Conf</b>	<b>Jan. 9 T. Conf.</b>	<b>Mar. 18-19 Mtg.</b>
BG B. A. Berwick <sup>1</sup>	U.S.					
Mr. J. Bernier	U.S.	X	X	X	X	
Mr. A. Carpentier	Can.	X	X	X	X	X
COL J. Drolet <sup>2</sup>	U.S.	X			X	X
Dr. T. Hullar	U.S.	X	X			X
Mr. J. Lorquet <sup>3</sup>	Can.					
Mr. R. P. Metcalfe	Can.	X	X	X	X	X
Dr. F. Sciremammano, Jr.	U.S.	X	X	X	X	X
Mr. P. Yeomans	Can.	X	X	X	X	

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

**Location of Meetings:**

October 16, 2007, Ottawa, Ontario.  
March 18-19, 2008, Rochester, New York

### **Lake Ontario Outflow Strategy (Released September 17, 2007)**

The International St. Lawrence River Board of Control (Board,) after reviewing conditions in the Lake Ontario-St. Lawrence system and noting particularly the ongoing period of unusually low supplies and low levels throughout the Lake Ontario-St. Lawrence River system as well as the abnormally low levels in the upper Great Lakes, announced today its intent to continue to gradually restore water to Lake Ontario, if conditions will allow. By September 12, approximately 16 cm (6.3 in.) of the 23 cm (9 in.) of water that had been removed from the Lake last winter had been restored. In making any further restoration of water to the Lake, the Board will continue to ensure that regulation activities remain balanced in the best interests of all stakeholders. In that regard, the Board also authorized short-term deviations in the outflow to meet the critical needs of interests, including over-discharges to meet critical hydropower needs, maintain levels at Pointe-Claire at 20.6 m (67.6 feet) or allow certain incoming vessels to reach the Port of Montreal. The Board also authorized a flow increase of up to 300 cms (10,600 cfs) for 24 hours on October 13, if the level of Lake St. Louis was expected to remain below 20.85 m (68.4 feet), to assist recreational boating interests on that Lake with seasonal haul-out and relocation.

Restoration of the water is done by releasing less water than specified by the regulation plan. The Board's goal is to restore as much water as possible by year end.

The total supply of water to the Lake Ontario basin in August was well below average and the lake level fell by 19 cm (7.5 in.) during the month, as compared to an average fall of about 14 cm (5.5 in.). On September 12, the level was 19 cm (7.5 in.) below average, but well within the mandated range specified in the criteria for the regulation of Lake Ontario levels.

Water levels on the upper Great Lakes (Lakes Superior and Michigan-Huron) are well below average. This is expected to exacerbate the already below-average levels on Lake Erie. With below-average supplies expected from Lake Erie, the forecast for Lake Ontario levels indicates that the levels will remain below average for the next several months if average amounts of precipitation are received. There is a significant chance (about 13%) that Lake Ontario levels will fall below the lower limit prescribed in the Orders of Approval before the end of November.

The level at Pointe Claire on Lake St. Louis has been at or near the Seaway 'alert level' (the level at which commercial ships begin to be impacted by low levels) since mid August. Water levels in Montreal Harbour are currently below chart datum and are expected to remain below unless conditions become much wetter. The levels are expected to remain well below average for the next several months, even if normal amounts of precipitation are received.

The unusual water supply conditions throughout the Great Lakes system this year and the possibility of the continuance of anomalies from the supplies and levels enjoyed in the past, emphasize the need for all interests to take a long-term view when planning their facilities and operations.

### **Lake Ontario Outflow Strategy (Released October 22, 2007)**

The International St. Lawrence River Board of Control (Board,) recently reviewed conditions in the Lake Ontario-St. Lawrence system and noted in particular the ongoing period of unusually low supplies and low levels throughout the Lake Ontario-St. Lawrence River system and the abnormally low levels in the upper Great Lakes. As a result, the Board reaffirmed that it will continue to ensure that regulation activities

remain balanced in the best interests of all stakeholders. In that regard, the Board announced that it will continue to authorize short-term increased outflows when required to maintain levels at Pointe-Claire at 20.6 m (67.6 feet) and allow certain incoming vessels to reach the Port of Montreal. The Board also announced that it would continue to take advantage of any available opportunities to continue to restore water to Lake Ontario. It also authorized short-term deviations in the outflow to meet critical needs of other interests, including hydropower needs.

By October 16, approximately 13 cm (about 5 in.) of the 23 cm (9 in.) of water that had been removed from the Lake last winter had been restored. Restoration of the water is done by releasing less water than specified by the regulation plan. The Board's goal is to restore as much water as possible by year end.

The total supply of water to the Lake Ontario basin in September was well below average. The lake level fell by 13 cm (5.1 in.) during the month, which is equal to the average fall for the month of September. On October 16, the level was 20 cm (7.9 in.) below average, but well within the mandated range specified in the criteria for the regulation of Lake Ontario levels.

Well below average water levels on the upper Great Lakes (Lakes Superior and Michigan-Huron) are expected to exacerbate the already below-average levels on Lake Erie. With below-average supplies expected from Lake Erie, the forecast for Lake Ontario levels indicates that the levels will remain below average for the next several months if average amounts of precipitation are received. Even if the current dry conditions persist, it is not likely that Lake Ontario levels will fall below the lower regulated limit prescribed in the Orders of Approval in the coming months.

On several occasions since mid August, the Board has augmented outflows from Lake Ontario to maintain the level at Pointe Claire on Lake St. Louis above the Seaway 'low alert level' (the level at which commercial ships begin to be impacted by low levels). Water levels in Montreal Harbour are also currently below chart datum and are expected to remain below datum unless conditions become much wetter. The level in the Harbour set a new record low for September. Even if normal amounts of precipitation are received, the levels in Montreal Harbour are expected to remain well below average for the next several months.

The unusually low water supplies this year, are a reminder to all interests to take into consideration that these anomalies do occur and can persist for long periods of time, when planning their facilities and operations

### **Lake Ontario Outflow Strategy (Released November 15, 2007)**

The International St. Lawrence River Board of Control (Board,) recently reviewed conditions in the Lake Ontario-St. Lawrence system and noted in particular the continuing unusually low supplies and levels throughout the Lake Ontario-St. Lawrence River system, and the abnormally low levels in the upper Great Lakes. The Board reaffirmed that it will continue to ensure that regulation activities remain balanced in the best interests of all stakeholders. The Board announced that it will continue to authorize short-term increased outflows when required to maintain levels at Pointe-Claire at 20.6 m (67.6 feet) and allow certain incoming vessels to reach the Port of Montreal. The Board also announced that it would continue to take advantage of any available opportunities to restore water to Lake Ontario. It also authorized short-term deviations in the outflow to meet critical needs of other interests, including hydropower needs.

By November 13, approximately 12 cm (about 5 in.) of the 23 cm (9 in.) of water that had been removed from the Lake last winter had been restored. Restoration of the water is done by releasing less water than specified by the regulation plan. The Board's goal is to restore as much water as possible by year end.

The total supply of water to the Lake Ontario basin in October was below average. The lake level fell by 12 cm (5 in.) during October, which is slightly more than the average fall for the month. On November 13, the level was 24 cm (9 in.) below average, but well within the mandated range specified in the criteria for the regulation of Lake Ontario levels.

Well below average water levels on the upper Great Lakes (Lakes Superior and Michigan-Huron) are expected to exacerbate the below-average levels on Lake Erie. With below-average supplies expected from Lake Erie, the forecast for Lake Ontario levels indicates that the levels will remain below average for the next several months. However, if the current dry conditions persist, it is not likely that Lake Ontario levels will fall below the lower regulated limit prescribed in the Orders of Approval in the coming months.

Since mid August, the Board has frequently needed to augment outflows from Lake Ontario to maintain the level at Pointe Claire on Lake St. Louis above the Seaway 'low alert level' (the level at which commercial ships are impacted by low levels). Water levels in Montreal Harbour are below chart datum and expected to remain below datum unless conditions become much wetter. The level in the Harbour set a new record low for October, the second consecutive month setting a record low, and is expected to remain well below average for the next several months.

The unusually low water supplies this year are a reminder to all interests to take into consideration that these anomalies do occur and can persist for long periods of time, and should be taken into account when planning facilities and operations

#### **Lake Ontario Outflow Strategy (Released December 14, 2007)**

The International St. Lawrence River Board of Control (Board) recently reviewed conditions in the Lake Ontario-St. Lawrence system and is increasingly concerned about the continuing low supplies and levels throughout the Lake Ontario-St. Lawrence River system, and the abnormally low levels in the upper Great Lakes. For the third consecutive month, Montreal Harbour set a new record low in November.

Recognizing that the low levels and outflows cause hardship to some, the Board reaffirmed that it will continue to ensure that regulation activities remain balanced in the best interests of all stakeholders. The Board announced that it will continue to authorize short-term increased outflows when required to maintain levels at Pointe-Claire at 20.6 m (67.6 feet) until the end of the navigation season through the international section of the River. The Board also announced that it would take advantage of any available opportunities to restore water to Lake Ontario. It also authorized short-term deviations in the outflow to meet critical needs of other interests, including hydropower needs.

Beginning in January, the Board will act assertively to restore the existing overdischarges, now about 12 cm (5 in). This will be consistent with the formation of a stable ice cover and critical hydropower needs, both of which are weather dependent. Progress of the program will be reviewed at the Board's January meeting and, if necessary, revisions will be made.

The total supply of water to the Lake Ontario basin in November was below average. The lake level fell by 8 cm (3 in.) during November, slightly more than the average fall. On December 11, the level was at 74.28

m (243.70 ft), which is 25 cm (10 in.) below average, but well within the mandated range specified in the criteria for the regulation of Lake Ontario levels.

The forecast for Lake Ontario indicates that levels will remain below average for at least the next several months. There is about a 10% chance Lake Ontario levels will be below the lower regulation limit that applies beginning April 1 of each year.

Since mid August, the Board has frequently needed to augment outflows from Lake Ontario to maintain the level on Lake St. Louis above the Seaway 'low alert level' (the level at which commercial ships are impacted by low levels). About 1 cm (1/2 inch) of water was used for this purpose in November. Water levels in Montreal Harbour are below chart datum and expected to remain below datum unless conditions become much wetter.

### **Lake Ontario Outflow Strategy (Released January 11, 2008)**

The International St. Lawrence River Board of Control (Board) recently reviewed conditions in the Lake Ontario-St. Lawrence system and has decided to continue restoring water to Lake Ontario. Over the past month, about 6 cm (2.4 in) was restored, primarily when ice conditions in the Montreal area forced a reduction in outflow to avoid damages to Hydro Quebec facilities. This leaves about 6 cm (2.4 in) of water to be restored. Recall that the Board released extra water last year to reduce the likelihood of shoreline damages on Lake Ontario. Lake Ontario's current level (January 8) of 74.48 m (244.36 ft) is about 6 cm lower than it would be had the Board strictly applied regulation Plan 1958-D over the course of the past year.

Last month Montreal Harbour set a new record low for the month of December. This was the fourth consecutive month that the respective monthly lows were eclipsed at Montreal. Recognizing that the low levels and outflows cause hardship to some, the Board reaffirmed that it will continue to ensure that regulation activities remain balanced in the best interests of all stakeholders. The Board announced that it will continue to authorize short-term increased outflows when required to maintain levels at Pointe-Claire above 20.5 m (67.3 feet) for municipal water intake purposes and to meet the critical needs of other interests, including hydropower. The Board also announced that it would take advantage of any available opportunities to continue restoring water to Lake Ontario. During the remainder of the winter, outflows will be consistent with the formation of a new and stable ice cover as the recent thaw has largely depleted the earlier ice cover.

The total supply of water to the Lake Ontario basin in December was above average, due mostly to large local runoff. The lake level rose by 16 cm (6.3 in) during December, compared to an average rise of 1 cm (0.4 in). The January 8 level of 74.48 m (244.36 ft) was 7 cm (2.8 in) below average, and 45 cm (18 in) below last year at this time when the Board was concerned about high water levels on Lake Ontario. The current level is well within the mandated range specified in the criteria for the regulation of Lake Ontario levels.

The forecast for Lake Ontario indicates that levels will remain below average for at least the next several months. The chance of Lake Ontario levels being below the lower regulation limit that applies beginning April 1 of each year has greatly diminished in the past month.

**Abbreviations and Terms Used in this Report**

actual (data)	The actual recorded value
avg	Average
Board	International St. Lawrence River Board of Control
cfs	Cubic feet per second
cm	Centimetres
cms	Cubic metres per second
Commission	International Joint Commission
computed level, outflow	The level or outflow computed by Regulation Plan 1958-D
deviation (outflow)	A Lake Ontario outflow different from the Plan 1958-D outflow
Exceedence Probability	The percent of time that the value was exceeded in the past
ft	Foot/feet
IJC	International Joint Commission
ISLRBC	International St. Lawrence River Board of Control
in	Inche(s)
Lake level	Lake Ontario (unless otherwise specified) Water level
LTA	Long-term average
m <sup>3</sup> /s	Cubic metres per second
m	Metres
mm	Millimetres
NYPA	New York Power Authority
OAG	The Board's Operations Advisory Group
OPG	Ontario Power Generation
Peaking Plan	Varying discharge during the day to meet hydropower demand Regulation Plan 1958-D
Ponding	Releasing less water on the weekend to allow greater releases during the work week
pre-project	The levels and flows that would have occurred had regulation not been undertaken
regulation	Management of levels and flows in the Lake Ontario-St. Lawrence River system by physical control of outflows from Lake Ontario
Regulation Plan 1958-D	Current plan of regulation for Lake Ontario
Seaway supply	The St. Lawrence Seaway (commercial navigation facility) Quantity of water received
tcfs	Thousand cubic feet per second

## **Communication and Outreach Strategy for 2008-2009 for the International St. Lawrence River Board of Control**

especially in light of the

### **IJC Announcing a New Order of Approval and Regulation Plan for Lake Ontario and the St. Lawrence River**

Approved, Board of Control, March 17, 2008

**Summary**—The Board of Control periodically reviews and revises its Communication and Outreach Strategy. A proposed new order will soon be announced by the IJC. If a new Order of Approval is implemented, the Board believes the Commission and Board will be presented with new and unique communication challenges and opportunities, and significantly increased needs for effective communications. In addition, only a limited period of time will be available to establish these communications. To respond adequately, effort at least equivalent to one full-time position by a mid-to-upper level communications professional will be needed during the first two years under any new Order and perhaps longer. The focus of the effort should be on outreach to stakeholders and news media via timely information products, enhanced website content, a speakers' bureau, and development of long-term communication strategies consistent with any new Regulation Plan and Adaptive Management Program. Full bilingual capability, website technical support, graphic design, and distribution support will also be required.

#### **Context and Strategic Considerations**

The International Joint Commission and its International St. Lawrence River Board of Control have on-going needs for adequate communications support, which has not yet been available, including:

- Explaining that decisions (whether by the Board or the Plan) need to be based on the conditions and the relative benefits and risks to interests in the basin; and
- Delivering timely, sophisticated, and visible communication and outreach efforts, in addition to accurate and up-to-date information.

In addition, if a new Order of Approval and regulation plan are adopted, the Commission and Board will be presented with new and unique communication opportunities and challenges.

Under a new Order and regulation plan, significant opportunities include:

- A new way of doing business under a new Order, which will open the door for establishing a new dynamic in communicating with stakeholders;
- The underlying studies provide an extensive knowledge base that can be used to explain the underpinnings of regulation and to discuss stakeholder expectations in a factual and reasonably analytic manner;
- Any adaptive management program will offer opportunities for stakeholders to be engaged in a forward-looking manner; and
- Communicating effectively with stakeholders can help build confidence in any new regulation process as well as in the implementing organizations.

At the same time, these opportunities will be accompanied by significant challenges:

- Explaining the nuances of a new Order and factors that determine how the regulation plan functions in real time will take time and care;
- Explaining why some deviations are acceptable, while others are not, will require consistent messaging, particularly when interests are being impacted; and
- Explaining how decisions will be made on adaptive management and why changes to the regulation plan cannot necessarily be made within a short timeframe will require careful messaging.

Upon announcement by the Commission of a new order, the Commission and its Board will have only limited time (perhaps only a few months) to demonstrate that they can communicate effectively. Given that basin stakeholders are vocal and well-organized, there is significant potential for controversy. If the necessary communication capacity is not in place in advance of the decision regarding a new Order, important opportunities will be lost and much greater efforts will be needed over time to build stakeholder confidence in the process.

### **Goals of Communication and Outreach Strategy**

- Increase public understanding of the policy goals intended by the Order and Plan;
- Increase public understanding of operations of the system;
- Increase public understanding of the limits of regulation and the role of risk and uncertainty in managing water supplies;
- Increase public understanding of any adaptive management program and how monitoring results can (or cannot) be interpreted;
- Gather and analyze information from stakeholders on impacts of water levels and flows to inform the Board and Commission and to aid the adaptive management program;
- Facilitate information-sharing among stakeholders to increase their understanding of the basin-wide context for regulation; and
- Build stakeholder trust through effective dialogue and by demonstrating that the IJC and Board are transparent, knowledgeable, competent, and fair.

### **Objectives of Communication and Outreach Strategy**

- Gather information about stakeholder concerns and issues and identify significant communication issues;
- Develop clear, consistent and accurate information and targeted, ongoing activities to address significant communications issues;
- Proactively communicate with news media, elected officials and stakeholder groups;
- Provide timely and substantive responses to inquiries;
- Establish a familiar and credible Commission/Board presence in the public discourse over water levels and flows in the basin; and
- Widen interest and participation in the Board's public teleconferences and annual meetings with the public;

### **Communication and Outreach Activities**

The following activities are all part and parcel of an effective communication and outreach strategy. Developing the content for an informative website is the top priority and will require the greatest effort by communication personnel. Maintaining relations with stakeholder groups and

running a speakers bureau is the second priority. However, analysis of priority issues, media relations, organized responses to inquiries and regular assessment of efforts are essential to the success of the strategy.

- Monitor and analyze media coverage, correspondence and other communications in light of current conditions and impacts to interests to identify and prioritize communication issues on a weekly basis;
- Use priority communication issues to help manage communication efforts and the time spent by IJC and Board personnel to collect factual information and develop credible narratives;
- Develop an informative and up-to-date website, presentations, regular media announcements and other strategically-targeted information products;
- Establish and run an active speakers bureau;
- Respond to inquiries with pre-developed and individually tailored content;
- Cultivate relationships with media, elected officials and stakeholder groups in the basin and maintain high-quality contact databases;
- Maintain an inventory of public comments that captures the location, timing and nature of any impacts reported by stakeholders; and
- Assess the effectiveness of communication and outreach activities every three months and plan for the future.

### **Level of Effort Required for Communication and Outreach Strategy**

The following list identifies the additional human and financial resources needed to implement an effective communication and outreach strategy and, in the event a new Order and Plan are announced, to meet the increased communication needs during the first two years of implementation:

- One Full-Time Equivalent of effort by an experienced mid-to-upper level public affairs specialist working under the supervision of the Board Co-chairs, following the direction provided by the IJC-Board Communication Committee, with approval by the Board of Control;
- Full bilingual capability will be required to develop communication products, respond to inquiries and work with spokespersons in both official languages of Canada;
- Support for travel to Board activities, public meetings, and meetings with stakeholder groups; and
- Support for supplementary services, such as graphic design, technical website support, and the printing and distribution of materials.

Communication efforts focused on any new Order and Plan *will be in addition to* the current demand for communications by the Board. The increased support will, to some extent, allow Board Secretaries, Regulation Representatives and other current personnel to focus more on the substantive aspects of communication activities, but their workload is not expected to decrease.

To begin implementing this strategy, the IJC will need to secure the needed communications support as part of its consultations with governmental agencies regarding arrangements that are needed under current and future Orders of Approval.