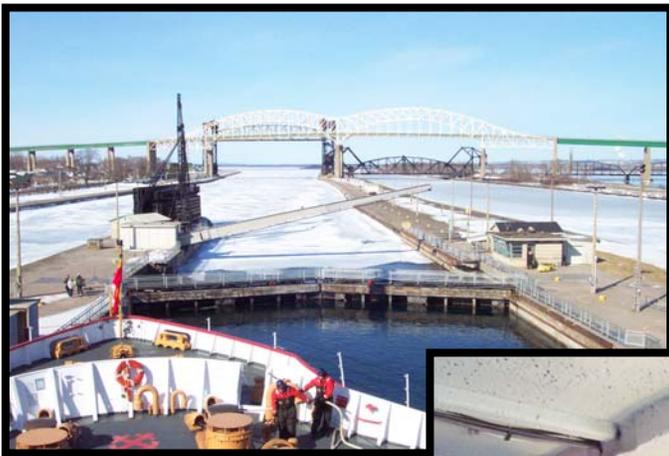


**International Lake Superior
Board of Control
Semi-Annual Progress Report to the
International Joint Commission
Covering the Period September 21, 2005 to March 29, 2006**



USCGC Mackinaw and CCGC Samuel Risley Locking Through to Break Ice Above the Soo Locks
(Friday March 17, 2006; SAO Photos by Carmen Paris)

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International Lake Superior Board of Control

United States
BG Bruce A. Berwick, Member
Mr. John W. Kangas, Secretary



Canada
Mr. Carr McLeod, Member
Mr. David Fay, Secretary

March 29, 2006

International Joint Commission
Washington, D.C.
Ottawa, Ontario

Commissioners:

This semi-annual report covers the Board's activities from September 21, 2005 to March 29, 2006.

1. Highlights

During the past six months, the water levels of Lakes Superior and Michigan-Huron remained below average. Levels were below those of last year.

The Lake Superior outflows were as specified by Regulation Plan 1977-A. Since September, the monthly outflows from the lake have been between 83% and 102% of average. Lake Superior basin water supply was above average while that to the Lakes Michigan-Huron basin was below average over the last six months.

During the September through March reporting period ponding by the hydropower entities was restricted on weekends and holidays during October, November and December.

The Board submitted its January 23, 2006 follow-up report to the IJC on peaking and ponding. The Board noted that peaking and ponding guidelines continue to work well. The Board recommended that, pending resolution of environmental issues raised, the issue of setting a new peaking and ponding decision threshold level be deferred. On March 17, 2006, the International Joint Commission (IJC) approved peaking and ponding for an indefinite period under the Board's supervision.

Great Lakes Power Limited became a unit of Brookfield Power Corporation on January 30, 2006 and is referred to hereafter as Brookfield Power.

As usual the U.S. Locks closed on January 15, 2006 and re-opened on March 25, 2006. The Canadian lock closed October 15, 2005 and will re-open in mid-May 2006.

2. Monitoring of Hydrologic Conditions

The Board, through its staff, continuously monitors the water levels of Lakes Superior and Michigan-Huron, and the water levels and flows in the St. Marys River. The Regulation Representatives' monthly reports to the Board provide hydrologic assessments and recommendations on the regulation of outflows from Lake Superior. These reports indicate the amount of water available for hydropower purposes, after the requirements for domestic use, navigation, and the fishery (St. Marys Rapids) were met.

Tables 1 and 2 list the recent monthly water levels, net basin supplies, and outflows for Lakes Superior and Michigan-Huron, respectively. Figure 1 compares the monthly water levels for this period to long-term averages and extremes. Figure 2 shows the monthly precipitation over the Lakes Superior and Michigan-Huron basins. Figure 3 shows the monthly net basin supplies for the basins.

Precipitation over the Lake Superior basin was below average in September and December 2005, and January and February 2006 but was still 112% of average over the past six months. The net basin supplies, which are the net effect of precipitation, evaporation and runoff to the lake, were below average only in September 2005 and February 2006. On the whole, the September through February net basin supplies were above average and would be expected to be exceeded about 32% of the time.

Lake Superior's water levels fell below chart datum (183.2 m or 601.1 ft) on February 9, 2006. Lake levels over the past six months ranged from 10 cm (4 inches) to 20 cm (8 inches) below long-term averages. On March 29, 2006, its level was 183.10 m (600.72 ft), which was 15 cm (5.9 inches) below average and 9 cm (3.5 inches) lower than a year ago. Snow survey flights to determine the snow pack on the Lake Superior basin were made March 16 - 19, 2006. Based on snow survey data the snow water equivalent (SWE) was 140% of average, lower than last years 152% of average. On average, the majority of the Lake Superior Basin has 4 to 6 inches of SWE with locally higher amounts.

Precipitation over the Lakes Michigan-Huron basin was below average in September, October, and December 2005 but was still 110% of average over the past six months. The exceedance probability for net basin water supplies to Lakes Michigan-Huron for the September through February period was 62%. Supplies were below average in September, October and December 2005 and February 2006.

Monthly mean Lake Michigan-Huron levels ranged from about 39 cm (15 inches) to 48 cm (19 inches) below long-term averages. Water levels fell below chart datum (176.0 m or 577.5 ft.) on October 18, 2005 where they remain as of this reporting date. On March 29, 2006 the level of Lakes Michigan-Huron was at elevation 175.94 m (577.23 ft), 41 cm (16.1 inches) below average and 16 cm (6.3 inches) lower than a year ago.

3. Regulation of the Outflow from Lake Superior

The outflows of Lake Superior were as specified by the Regulation Plan 1977-A during the past six months. There was a minor unintentional flow reduction resulting from repairs to a turbine wicket gate at the Brookfield Power (formerly Great Lakes Power Ltd., and Brascan Power) hydropower facility in Sault Ste. Marie, Ontario in September. The gate setting at the Compensating Works supplying the main portion of the St. Marys Rapids was at an equivalent one-half gate open, 4 gates set at 25 cm (10 inches), for the past six months. Gate #1, which supplies water to the Fishery Remedial Works, remained set at 15 m³/s (530 cfs). Lake Superior outflows were at 95% of average over the last six months, ranging from 1,900 m³/s to 2,170 m³/s (67,100 cfs to 76,600 cfs). Outflows were limited by Criterion (c) from November 2005 through March 2006.

Tuesday morning, October 25, 2006 a fisherman fell out of his boat and drowned downstream from the Compensating Works. Gate #16 was raised to a one-half open setting and Gates 7, 8, 9, and 10 were closed to aid recovery of the body by Canadian and US Coast Guard authorities, and maintain the regulated outflow. After falling out of his boat the fisherman's hip waders filled with water and took him under the water. He was not wearing a life jacket. After recovery was complete the gates were returned to their original settings. There was no impact on the October regulated outflow.

4. Governing Conditions During the Reporting Period

The monthly mean levels of Lake Superior ranged between 183.18 m and 183.38 m (601.0 ft. and 601.6 ft.), well within the limits of 182.76 m and 183.86 m (599.6 ft. and 603.2 ft.) specified in the Commission's Orders of Approval.

The daily mean water levels in the lower St. Marys River at the U.S. Slip Gauge downstream of the U.S. Lock varied between elevation 175.98 m and 176.49 m (577.36 ft. and 579.04 ft.). Thus, the requirement for maintaining the level below 177.94 m (583.8 ft.) was satisfied. The daily mean U.S. Slip gauge level was below chart datum for 167 days of the 190 days during the reporting period.

5. Inspection and Repairs at the Compensating Works

The full five-year inspection and level survey of the structure, including underwater inspections, was done during May 2005. Items requiring maintenance were identified and included in the U.S. and Canadian work plans. Summaries of the work plans are attached at Annex A. The work includes installation of signage lighting, updates of the Emergency Notification Plan and Emergency Operations Plan, development of a maintenance tracking system, and complete repainting of the Canadian gates and mechanisms (to be done during the period 2007 - 2010 by Brookfield Power). Safety fences and signage were installed in August 2005 along the northern abutment to discourage swimming downstream of the gates in the vicinity of the rail bridge. The owners of the Compensating Works were requested to file copies of the 5-year Inspection Reports with the Board.

In addition, ongoing maintenance and inspections were undertaken during the past six months. The structure remains in generally good condition.

6. Repairs and Maintenance at the Hydropower Facilities

a. U.S. Government Hydropower Plant

Unit 3A tripped off-line in February due to generator exciter malfunctions. The unit will be taken off-line later this year for inspections. Other routine maintenance activities were conducted at the US Government Plant. The main plant and Unit 10 remain in good operating condition.

b. Brookfield Power

A series of planned maintenance outages continued at the plant during the reporting period. Unit G2 was shut down from September 19th to October 24th for annual inspection and governor, unit controls, and static excitation upgrades. As mentioned in Section 3, unexpected damage to a wicket gate resulted in a minor unintentional flow reduction while repairs were made in September. On October 8, Brookfield Power shut down all three units to facilitate divers carrying out an annual underwater cable inspection for Lake Superior Power Ltd. One unit was already down and trash racks were cleaned during the shutdown. After bringing two units back on-line, trash dislodged and damaged a unit necessitating an unexpected shutdown for about ten hours while it was repaired. The total September outflow of 2,170 cms was 30 cms less than the 2,200 cms called for by Plan 1977-A, while the total planned October outflow of 1,900 cms was not impacted.

Units will be taken off-line in June for their annual inspections and maintenance.

c. Edison Sault Electric Company

Routine maintenance was conducted during the reporting period. Work may be done on the intake canal later this spring. The plant remains in good operating condition.

7. Flow Determinations

a. Compensating Works

As previously reported, flow measurements were made during August 2005 with settings ranging from ½ to 7 gates open. A report on the measurement program will be available for the September 2006 semi-annual meeting. Preliminary results indicate that the measured flows may be slightly greater than the flows indicated by the rating curve. Additional flow measurements will be made this summer to gather more data for flows through one gate half-open and four gates partially open.

b. U.S. Government Hydropower Plant

As part of the automation of the U.S. Government hydropower plant at the Soo installation of a new System Control and Data Acquisition (SCADA) system was completed in September 2004. Flow measurements were made in June 2005 to verify the flow data being supplied from the SCADA system. A draft report on the results of these measurements was presented to the Board at its March 29, 2006 meeting. The data analysis indicates that the power plant is under-

reporting from 4.7% to 11.4%. The Board decided to continue using an adjustment of 9% until the underlying reasons for the inconsistency between measured and reported flows is resolved. The indicated flow through Unit 10 agrees very well with the measured flow, but there continues to be a discrepancy between the indicated and measured flow through the main powerhouse. The Board recommended further measurements in 2006 to assist in correcting the discrepancy.

c. Brookfield Power

Flow verification measurements were also made at this hydropower plant in June 2005 in accordance with the scheduled five-year verification cycle. A draft report on the results of these measurements was presented to the Board at its March 29, 2006 meeting. The data analysis indicates that all measurements were within an acceptable 5% of the discharges reported by the plant. Further measurements were recommended by the Board this spring, if possible, in order to check how well reported flows compare to those measured at discharges below full plant capacity.

d. Edison Sault Electric Company

The Board approved the use by ESEC of its revised software for reporting flows in March 2005. The Board made verification flow measurements in June 2005. A draft report on the results of these measurements was presented to the Board at its March 29, 2006 meeting. The data analysis indicates that the software revisions have resulted in plant reported flows within an acceptable 5% of the measured flows. No further measurements are recommended until the next cycle mandated by the Board in 2010.

8. Water Usage in the St. Marys River

Table 3 (Table 4 in cubic feet/second) lists the distribution of outflows from Lake Superior for January 2005 to February 2006. Water uses are divided into four categories: domestic, navigation, fishery, and hydropower. According to the 1979 Supplementary Order, after the first three water requirements are satisfied, the remaining outflow is shared equally between the U.S. and Canada for hydropower purposes. Any remainder, beyond the flow capacity of the hydropower plants, is discharged through the Compensating Works into the St. Marys Rapids.

As shown in the tables, the monthly mean amounts of water used for domestic and industrial purposes ranged from 10 to 11 m³/s (353 to 388 cfs), which is roughly 0.5% of the total monthly outflow.

The flow through the U.S. and Canadian locks depends on traffic volume and varied from 3 to 14 m³/s (106 to 494 cfs). As a percentage of the total river flow, water allocated for navigation varied seasonally from as little as 0.1% (when the locks were closed for the winter) to about 0.6% of the total river flow in the busiest part of the navigation season.

The U.S. locks closed on January 15, 2006, as scheduled. They re-opened on March 25, 2006. The Canadian lock closed for the season on October 15, 2005 and is expected to reopen in mid-May 2006.

In accordance with the Commission's Orders to fulfill the fishery needs in the main rapids, a minimum gate setting of one-half gate open is required at all times at the Compensating Works. A setting equivalent to one-half gate open for the main rapids is maintained by having four gates partially open to supply the same quantity of water as one gate half open. This spreads the flow more evenly across the main rapids, and is thought to reduce potential damage from ice floes impacting the gate in the winter. In addition, a flow of at least 15 m³/s (530 cfs) is required in the Fishery Remedial Works (through Gate 1). The flow in the St. Marys Rapids, including that through the Fishery Remedial Works, ranged from 100 to 103 m³/s (3,530 to 3,640 cfs) over the last six months.

The hydropower plants used an average of 1,921 m³/s (67,840 cfs) from September 2005 through February 2006 for electric power production. The allocation for this period averaged 1,928 m³/s (68,090 cfs). Usages at each plant are shown in Tables 3 and 4.

9. Long Lac and Ogoki Diversions

Ontario Power Generation (OPG) continued to provide the Board with information on the operations of the Long Lac and Ogoki Diversions. The Ogoki Diversions into Lake Nipigon (which flows into Lake Superior) averaged 83.9 m³/s (2,960 cfs) and the Long Lac Diversion averaged 31.5 m³/s (1,110 cfs) for the reporting period. Combined, these diversions were about 82 % of average for the period 1944-2005.

During the reporting period, no water was spilled northward into the Ogoki River or from Long Lake into the Kenogami River.

10. Peaking and Ponding Operations at Hydropower Plants

Flow variations at the hydropower plants at Sault Ste. Marie cause the water levels to fluctuate in the St. Marys River downstream of the plants. During the reporting period, the power entities undertook peaking and ponding operations under the supervision of the Board. U.S. Slip weekend minimum levels, which are those affected by ponding operations, were below chart datum the last two weekends in October, and weekends and holidays in November and December. As a result, the hydropower companies were required to suspend ponding operations during these periods on weekends and holidays. During January through March, levels were of no concern to navigation, and ponding was permitted.

With the water levels and Lake Superior outflows below average in recent years, the fluctuations have been a concern for commercial navigation. As previously reported, a navigation interest proposed that the threshold level for peaking and ponding decisions could be lowered one foot (30 cm) following completion of dredging in the lower St. Marys River. A letter was mailed October 28, 2004 to key affected interests and posted on the IJC web site seeking public comment on changing the threshold. Concerns were expressed by one natural resources agency regarding possible effects on aquatic habitat and species using the river. The Board received an analysis (commissioned by ESELCO) of some of these environmental concerns from Lake Superior State University in August 2005. This was forwarded to the

Michigan Department of Natural Resources in October and a response was received from them in November 2005.

The Board submitted an update report on January 23, 2006, covering peaking and ponding during the 2004 and 2005 shipping seasons. The report noted that the interim guidelines and the mechanism for disseminating information to the public appeared to be working well. The Board's report also noted the continuing concerns being raised by some environmental interests. The Board considered all the above letters prior to making its recommendations to the Commission. The Board recommended that peaking and ponding continue within current constraints for an indefinite period of time. The Board further recommended that, pending resolution of environmental issues raised, the issue of setting a new peaking and ponding decision threshold level be deferred.

The Commission's March 17, 2006 letter to the Board and hydropower entities approved continued peaking and ponding operations for an indefinite period under the Board's supervision. The Board shall provide summaries of peaking and ponding activities in its semi-annual reports to the Commission. Peaking and ponding guidelines are to be examined on a five year basis by the Board starting with the last year of the Upper Lakes Study, or 2010, whichever comes first.

To provide timely information to the users, the Corps distributes monthly notices on expected Lake Superior outflows, and a schedule of flow variations at the hydropower plants.

11. Annual Meeting with the Public (Multi-Site) and Public Information

The Board will hold its 2006 annual meeting with the public on May 24. The tentative locations are Parry Sound, Ontario in Canada, and the USACE facilities at the Soo Area Office at Sault Ste. Marie, MI and at the Duluth Area Office, Duluth, MN in the U.S.

The Board continues to issue, at the beginning of each month, news releases informing the public about Lake Superior regulation and water level conditions. In support of the Board and the Commission, the Detroit District of the Corps of Engineers maintains a Board home page on the Internet. Content includes information on Board members and responsibilities as well as news releases, semi-annual reports, meeting minutes and hydrologic data summaries.

12. Sea Lamprey Control

The Great Lakes Fishery Commission (GLFC) and the Sea Lamprey Control Centre (SLCC) did not request flow adjustments or other assistance from the Board to carry out its sea lamprey control program during the last six months. The Board remains available to assist the GLFC and SLCC on request.

The Board is keeping the GLFC, SLCC, US Fish and Wildlife Service (USFWS) and Michigan Department of Natural Resources (MDNR) and others advised of expected upcoming regulation decisions regarding gate and flow changes through its news releases and postings on

its web page. An effort will be made to work with these agencies in the event that future gate and flow changes are expected to adversely affect their sea lamprey control programs.

The Edison Sault Electric company, the District's Soo Area Office and Brookfield Power plants continue to cooperate with the USFWS, GLFC and SLCC in coordinating installation of sea lamprey traps in their tailraces.

13. Related Items For Interest

Status reports on the following are provided to keep the Commission informed:

a. Upper Lakes Study

In May 2005, the IJC revised its plan for an Upper Great Lakes Study. It's directive focused on reviewing IJC Orders of Approval for Lake Superior outflow regulation and water level impacts on affected interests in the upper Great Lakes system from Lake Superior downstream through Lake Erie. The revised plan assumes no changes to the Treaties and other bi-lateral agreements between Canada and the United States will be made.

Two issues were added for consideration in the study. The first, looking at possible physical changes in the upper St. Clair River which could impact water level changes on the upstream (Michigan-Huron) and downstream lakes (St. Clair and Erie). The second issue involves incorporating lessons learned from the nearly complete lake Ontario - St. Lawrence River Study, which may help streamline the study.

A draft Plan of Study (POS) was released on August 25, 2005. In September public consultations were held at four locations. Comments received at the meetings and through the IJC web site, e-mails, and letters were incorporated to the maximum extent possible during development of the final version of the POS. The final POS was submitted to the IJC October 14, 2005. Implementation of the POS will not be initiated until the Governments of the United States and Canada appropriate funds.

b. Great Lakes / St. Lawrence Seaway Study

Work continues on the *Great Lakes / St. Lawrence Seaway Study*. This bi-national Study, being co-managed by Transport Canada and the Corps and being overseen by a Steering Committee consisting of several U.S. and Canadian agencies, is looking at the engineering aspects and cost of maintaining the present navigation system over the next 50 years. The Study is also looking at the implication this has on the region's economy and environment. No expansion of locks or connecting channel size is being considered. Engineering investigations of the locks on the system have been completed, and the analysis of the infrastructure has resulted in final criticality rankings of various components in order to focus more detailed reliability analyses on the most critical components. FY06 funding is being used to complete engineering/economic models and integration of results between the various models. Traffic forecasts for existing bulk commodities have been completed, and an ongoing U. S. Department of Transportation Maritime Administration study of potential new vessels/cargos will be used to supplement these forecasts for any new commodity movements (such as containers, or short sea shipping initiatives, etc.) that might utilize the system in the future. U.S. and Canadian

environmental resources are being integrated, leading to a regional assessment of the current condition of key resources, identification of system-wide issues which continue to affect these conditions, and assessment of navigation related impacts associated with continuing operation and maintenance of the navigation system. The study team will utilize these tools to develop operation and maintenance scenarios that would ensure the continued safe, reliable, and environmentally sustainable operation of the navigation system for the next fifty years. A draft report will be generated by the Fall of 2006 which will summarize the preliminary results and be presented to the study Steering Committee, leading to a final report in the Spring of 2007. Availability of U.S. funding for the study moving forward into FY07 may impact the timely completion of these efforts.

c. Lock Replacement at Sault Ste. Marie, Michigan

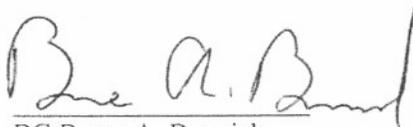
A new "Poe sized" lock is proposed to replace the existing Davis and Sabin Locks at the Soo Locks complex at Sault Ste. Marie, MI. The purpose of this project is to provide for more efficient movement of waterborne commerce. The Assistant Secretary of the Army for Civil Works (ASA(CW)) has reviewed the Limited Reevaluation Report (LRR). The revised LRR that includes responses to the ASA(CW) comments was forwarded to Headquarters USACE on September 30, 2005. They are currently awaiting input from the Departments of Commerce, Transportation, Agriculture, Energy, Homeland Security and the Maritime Administration before returning it to the ASA(CW) for approval. It is anticipated that approval of the LRR will take place in FY06. Execution of the Project Cooperation Agreement (PCA) with the non-Federal sponsor, the Great Lakes Commission (GLC) is expected in FY 07. The Board will continue to monitor the project progress and update the Commission as appropriate in future reports.

14. Board Membership and Meetings

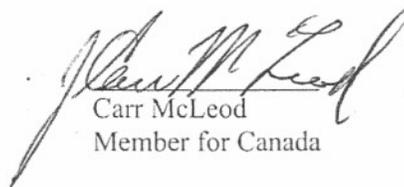
There was no change in the Board membership during the reporting period.

The Board held a meeting on March 29 in Chicago, Illinois, with Canadian and Alternate U.S. Members in attendance.

Respectfully submitted,



BG Bruce A. Berwick
Member for United States



Carr McLeod
Member for Canada

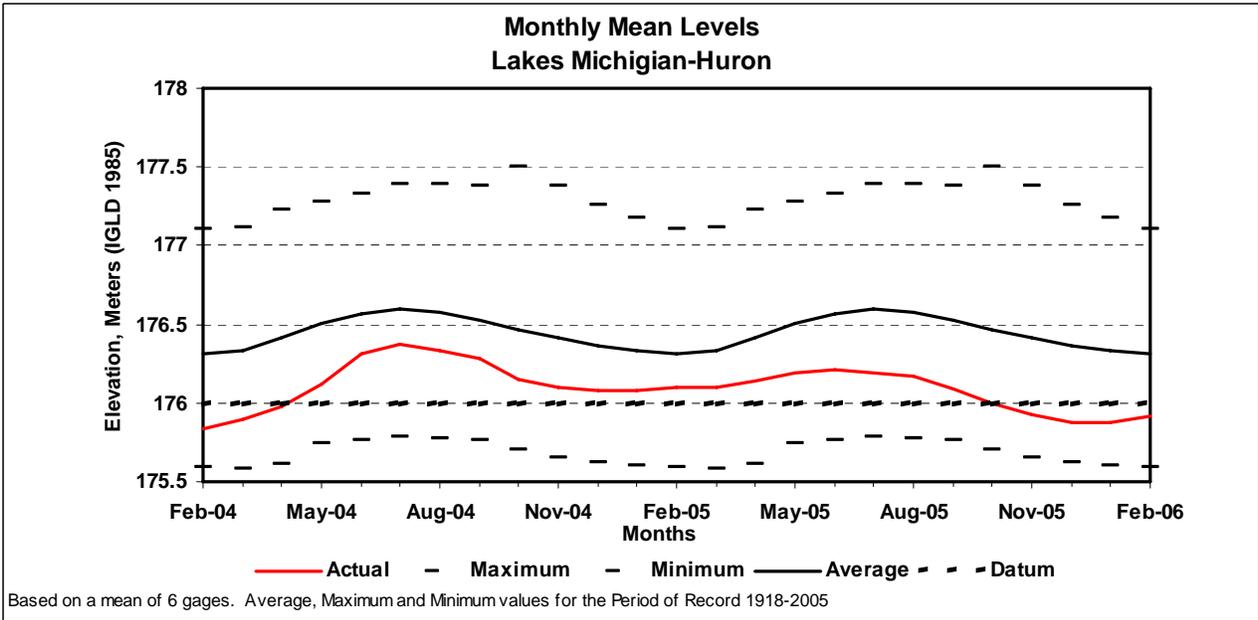
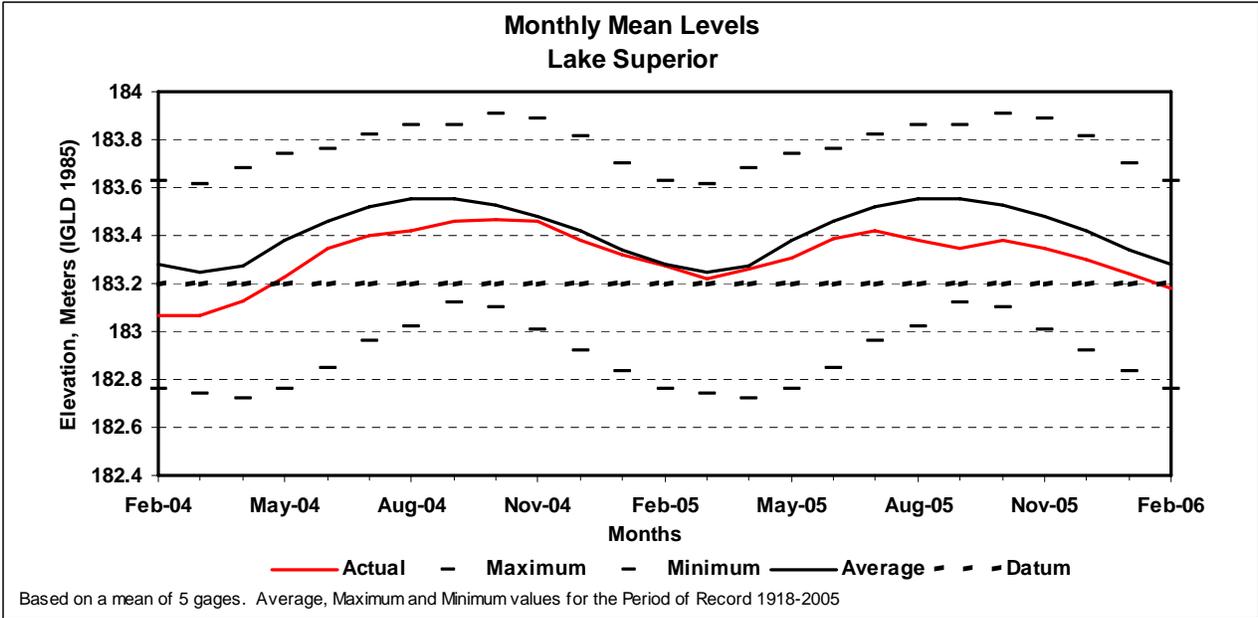


Figure 1

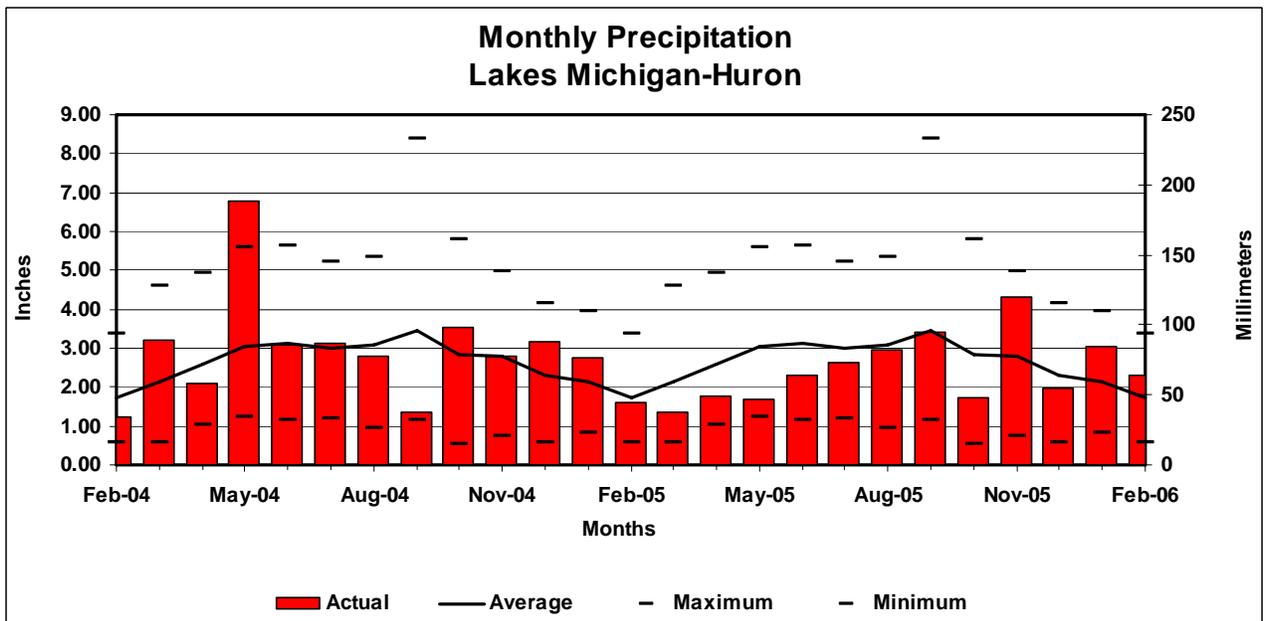
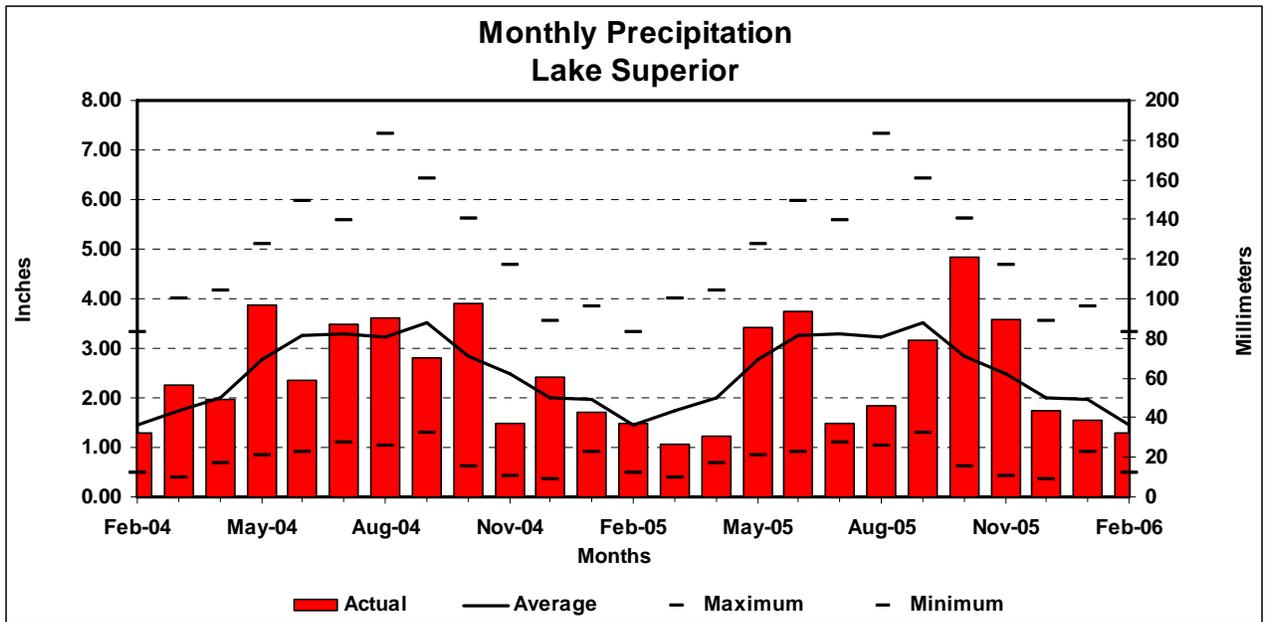


Figure 2

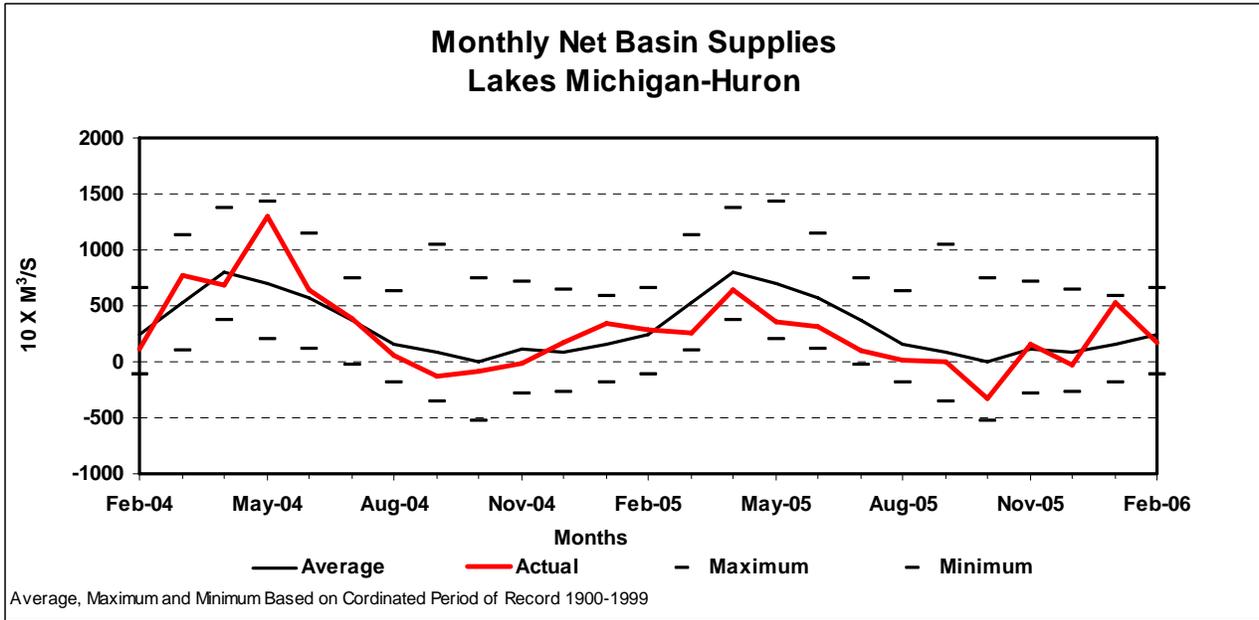
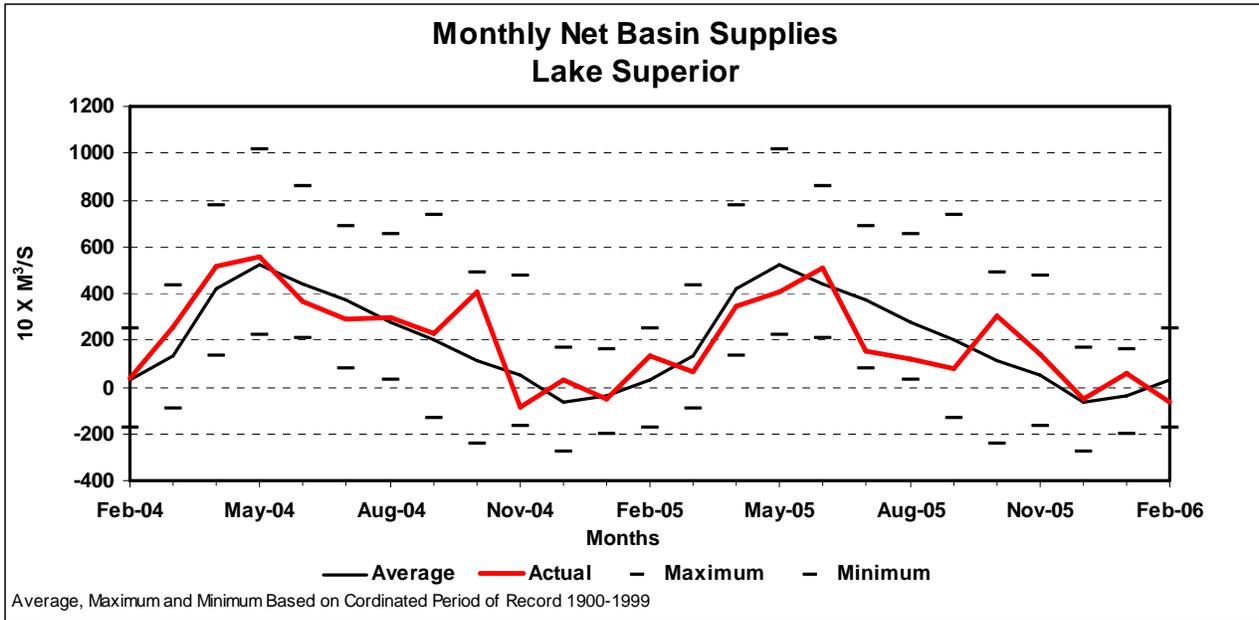


Figure 3

TABLE 1
2005 - 2006 Lake Superior Hydrologic Factors

Month	Levels				Net Basin Supplies			Outflows		
	Monthly Mean Recorded ¹		Difference From Average ²		Monthly Mean Recorded		Exceedance Probability (%)	Monthly Mean Recorded		Percent of Average ³
	meters	feet	meters	feet	m ³ /s	tcfs		m ³ /s	tcfs	
2005										
Jan	183.32	601.44	-0.02	-0.07	-530	-19	58	2080	73	107
Feb	183.27	601.28	-0.01	-0.03	1300	46	10	2030	72	106
Mar	183.22	601.12	-0.04	-0.13	660	23	69	2020	71	107
Apr	183.26	601.25	-0.01	-0.03	3440	121	69	1990	70	102
May	183.31	601.41	-0.07	-0.23	4050	143	74	2140	76	101
Jun	183.39	601.67	-0.07	-0.23	5080	179	31	2250	79	102
Jul	183.42	601.77	-0.10	-0.33	1550	55	98	3080	109	135
Aug	183.38	601.64	-0.17	-0.56	1180	42	91	2620	93	111
Sep	183.35	601.54	-0.20	-0.66	790	28	81	2170	77	92
Oct	183.38	601.64	-0.15	-0.49	3070	108	8	1900	67	83
Nov	183.35	601.54	-0.13	-0.43	1420	50	21	2160	76	96
Dec	183.30	601.38	-0.12	-0.39	-530	-19	44	2110	75	102
2006										
Jan	183.24	601.18	-0.10	-0.33	580	20	9	1970	70	101
Feb	183.18	600.98	-0.10	-0.33	-680	-24	89	1940	69	102

Notes: m³/s = cubic meters per second tcfs = 1000 cubic feet per second

¹ Water Levels are a mean of five gauges on Lake Superior, IGLD 1985

² Average levels are for period 1918-2005, based on a mean of five gauges. Differences computed as meters and then converted to feet.

³ Average flows and exceedance probabilities are based on a period of record 1900-1999.

TABLE 2
2005 - 2006 Lakes Michigan-Huron Hydrologic Factors

Month	Levels				Net Basin Supplies			Outflows		
	Monthly Mean Recorded ¹		Difference From Average ²		Monthly Mean Recorded		Exceedance Probability (%)	Monthly Mean Recorded		Percent of Average ³
meters	feet	meters	feet	m ³ /s	tcfs	m ³ /s		tcfs		
2005										
Jan	176.08	577.69	-0.25	-0.82	3470	123	12	4120	145	91
Feb	176.10	577.76	-0.21	-0.69	2790	99	39	4280	151	97
Mar	176.10	577.76	-0.23	-0.75	2610	92	86	4540	160	94
Apr	176.14	577.89	-0.27	-0.89	6410	226	74	4740	167	92
May	176.19	578.05	-0.32	-1.05	3590	127	95	4750	168	88
Jun	176.21	578.12	-0.36	-1.18	3090	109	93	4800	170	88
Jul	176.19	578.05	-0.41	-1.35	980	35	97	4860	172	88
Aug	176.17	577.99	-0.41	-1.35	120	4	80	4880	172	88
Sep	176.09	577.72	-0.44	-1.44	0	0	64	4760	168	87
Oct	176.00	577.43	-0.47	-1.54	-3320	-117	97	4740	167	87
Nov	175.93	577.20	-0.48	-1.57	1590	-56	37	4550	161	85
Dec	175.88	577.03	-0.48	-1.57	-250	-9	71	4450	157	86
2006										
Jan	175.88	577.03	-0.45	-1.48	5280	186	1	4480	158	99
Feb	175.92	577.17	-0.39	-1.28	1780	63	68	4520	160	102

Notes: m³/s = cubic meters per second tcfs = 1000 cubic feet per second

¹ Water Levels are a mean of six gauges on Lakes Michigan-Huron, IGLD 1985

² Average levels are for period 1918-2005, based on a mean of six gauges. Differences computed as meters and then converted to feet.

³ Average flows and exceedance probabilities are based on a period of record 1900-1999.

TABLE 3
MONTHLY DISTRIBUTION OF LAKE SUPERIOR OUTFLOWS (cubic meters /second)

		POWER CANALS				NAVIGATION CANALS			DOMESTIC USAGE				Fishery St. Marys Rapids	Total Lake Superior Outflow m ³ /s
Year and Month	US Govern't Hydro.	Edison Sault Electric	US Total	Great Lakes Power	Total Power Canals	United States	Canada	Total Navigation Canals	Sault Ste. Marie US+Can.	Algoma Steel	St. Marys Paper	Total Domestic Usage		
2005														
JAN	386	563	949	1015	1964	4.3	0	4	0.3	7.4	0.3	8	101	2077
FEB	402	557	959	957	1916	2.1	0	2	0.3	7.8	0.3	8	101	2027
MAR	401	557	958	953	1911	3.8	0	4	0.3	7.6	0.3	8	100	2023
APR	388	547	935	933	1868	9.6	0	10	0.3	9.8	0.3	10	101	1989
MAY	403	709	1112	905	2017	11.7	0.6	12	0.3	10.5	0.3	11	101	2141
JUN	399	657	1056	1052	2108	13.4	1.7	15	0.4	11.0	0.3	12	112	2247
JUL	394	785	1179	1073	2252	15.5	2.3	18	0.5	11.0	0.3	12	800	3082
AUG	399	771	1170	1069	2239	13.8	2.1	16	0.4	11.5	0.3	12	358	2625
SEP	397	774	1171	876	2047	13.0	1.4	14	0.3	10.8	0.3	11	102	2174
OCT	398	640	1038	734	1772	10.7	0.5	11	0.3	10.6	0.3	11	103	1897
NOV	393	601	994	1042	2036	9	0	9	0.3	10.3	0.3	11	103	2159
DEC	395	536	931	1059	1990	10.5	0	10	0.3	9.7	0.3	10	102	2112
2006														
JAN	400	464	864	985	1849	5.7	0	6	0.3	9.4	0.3	10	101	1966
FEB	391	467	858	972	1830	2.8	0	3	0.3	9.1	0.3	10	100	1943

TABLE 4
MONTHLY DISTRIBUTION OF LAKE SUPERIOR OUTFLOWS (cubic feet / second)

		POWER CANALS				NAVIGATION CANALS			DOMESTIC USAGE				Fishery St. Marys Rapids	Total Lake Superior Outflow m ³ /s
Year and Month	US Govern't Hydro.	Edison Sault Electric	US Total	Great Lakes Power	Total Power Canals	United States	Canada	Total Navigation Canals	Sault Ste. Marie US+Can.	Algoma Steel	St. Marys Paper	Total Domestic Usage		
2005														
JAN	13600	19900	33500	35800	69300	152	0	152	11	261	11	283	3570	73300
FEB	14200	19700	33900	33800	67700	74	0	74	11	275	11	297	3570	71600
MAR	14200	19700	33900	33700	67600	134	0	134	11	268	11	290	3530	71600
APR	13700	19300	33000	32900	65900	339	0	339	11	346	11	368	3570	70200
MAY	14200	25000	39200	32000	71200	413	21	434	11	371	11	393	3570	75600
JUN	14100	23200	37300	37200	74500	473	60	533	14	388	11	413	3960	79400
JUL	13900	27700	41600	37900	79500	547	81	628	18	388	11	417	28300	109000
AUG	14100	27200	41300	37800	79100	487	74	561	14	406	11	431	12600	92700
SEP	14000	27300	41300	30900	72200	459	49	508	11	381	11	403	3600	76700
OCT	14100	22600	36700	25900	62600	378	18	396	11	374	11	396	3640	67000
NOV	13900	21200	35100	36800	71900	318	0	318	11	364	11	386	3640	76200
DEC	13900	18900	32800	37400	70200	371	0	371	11	343	11	365	3600	74500
2006														
JAN	14100	16400	30500	34800	65300	201	0	201	11	332	11	354	3570	69400
FEB	13800	16500	30300	34300	64600	99	0	99	11	321	11	343	3530	68600

NOTES 1. Flows for individual users were originally coordinated in m3/s, and are converted here to U.S. customary units (cfs) and rounded to 3 significant figures. Total flow for each category and total Lake Superior flow in this table are computed from the individual flows in cfs.

St Mary's River Compensating Work
Outline of Compensating Works Canadian Section Painting Program 2007 to 2010
Brookfield Power, owner

In general, the work to be carried out at the St. Mary's Compensating Works will be as required to ensure the continued safe and reliable operation of the gates. The focus of the four year program, planned to commence in 2007 and continuing to, and including, 2010, will be safety and reliability issues first, items near and below the water line and then other works as the budget will allow, in order to achieve the required refurbishment.

In each of the four years of the program two gates will be dewatered using the bulkhead gate system constructed and deployed for the dewatering of gates during previous repair programs. Deployment and removal of the bulkhead system allows work to be carried out "in the dry" but is costly; hence work requiring dry conditions will receive priority attention.

Based on inspection and condition assessments, it is anticipated that the work carried out will include the following items. The need for some of the listed items and the extent of work that may be required cannot be determined in exact detail until the dewatering is complete.

List of anticipated items of work:

- functional tests and further inspection of all components after dewatering and during gate movements
- repair of leakage flowing around the embedded parts (concrete repair)
- repair / replacement of gate seals as required
- inspection and repair of hoist mechanisms
- refurbishment of steel components, blast cleaning and re-painting
- installation of steel nose plates on upstream pier nose (3 piers)
- inspection and repair of masonry and concrete piers below the water line
- inspection and repair / replacement of counterweights as required
- refurbishment and re-painting of steel super-structure
- maintenance and repair of pier caps to minimize water penetration
- miscellaneous work such as repair of bridge kick-plates and loose chain weights

All work undertaken will be in full compliance with applicable safety and environmental legislation, regulations and Brookfield Power policies and procedures.

The work program outlined above will be formalized this year into a program that would be manageable in each of the planned four years. Work planned for each of the years will be defined in more detail (although items and extent of all work cannot be quantified until after dewatering) allowing preparation and release of tender documents over the winter months. This will allow for an early (after Spring freshet) 2007 start of the fieldwork.

PERIODIC INSPECTION RECOMMENDATION STATUS REPORT
Compensating Works (U.S. side)
PERIODIC INSPECTION NO. #4

Description	Funding Argument	Estimated Cost (K)	Dam Safety	Status	Year	Responsible Organization
Clear slopes on embankments	needed for stability, normal O & M	20		1,7	2005	SAO
Remove concrete obstruction from gate 11 (u/s side)	Avoid damage to gates				2005	SAO
Clean counterweight boxes, touch up isolated areas where paint missing and corrosion	structural integrity, normal O & M			7		Edison
Lubricate wire cables	normal O & M			7	A	Edison
<i>Add sign lighting to north one on comp works</i>	<i>security and safety</i>					SAO
Spalling at gate recesses, side seal leakage on all gates	structural integrity, normal O & M					Edison, SAO, Operations
Update ENP and EOP	Dam safety			7	2006	District
Monitor bottom gate seals, ROV survey	normal O & M				A	SAO
Monitor cracks at gate sills, ROV survey	normal O & M				A	SAO
Maint. Tracking system (develop?)	needed			4	2006	District

KEY

Description	Description of recommendation	Status	1 = funded; 2 = funds requested, but not funded 3 = funds requested; 4 = funds not requested 5 = work underway; 6 = work complete 7 = part of normal O & M work
Funding Argument	Reason for complying with recommendation		
Cost	Estimated cost to complete task, in \$,000		
Dam Safety	1 = Current year; 2 = Budget year; 3=BY + 1	Year	Year the work is schedule to be completed, A = annual maintenance
Responsible Organization	Organization(s) responsible for task		