

**Current River / Boulevard Lake Dam
Water Management Report 2007**

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City of Thunder Bay
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Current River / Boulevard Lake Dam Water Management Report 2007

Introduction

A water management plan was completed in March 2006 for Boulevard Lake (Current River) Dam. This report provides data and analysis on the operation of the fish ladder, dam and generating station.

The main information gaps surrounding the operation of the dam and generating station relate to water flows and levels through the fishway. This information is necessary to promote Rainbow Trout movement upstream and up through the fishway. A monitoring and reporting program for stop log configuration, reservoir water level and flow through the fishway during times of expected Rainbow Trout runs is provided in this report to evaluate these operations.

Boulevard Lake Level

A level recorder is in operation and the signal is transmitted to the Bare Point Water Treatment Plant via a SCADA System. These measurements are taken and logged every 12 seconds, along with all the other data points, then put in the archive files, so not to fill the hard drive of the computer.

The average recorded levels of Boulevard Lake from April 01, 2007 to October 29, 2007 are shown on a weekly basis in the following Table 1.0 and Figure 1.0.

DATE:	Lake Level	DATE:	Lake Level
1-Apr-07	211.10	19-Jul-07	212.14
9-Apr-07	210.76	29-Jul-07	211.44
19-Apr-07	211.14	1-Aug-07	210.73
29-Apr-07	212.14	9-Aug-07	211.86
1-May-07	212.10	19-Aug-07	211.51
9-May-07	212.10	29-Aug-07	211.60
19-May-07	212.00	1-Sep-07	211.50
29-May-07	212.15	9-Sep-07	209.30
1-Jun-07	212.10	19-Sep-07	211.37
9-Jun-07	212.15	29-Sep-07	212.12
19-Jun-07	212.15	1-Oct-07	212.10
29-Jun-07	212.13	9-Oct-07	212.15
1-Jul-07	212.06	19-Oct-07	212.15
9-Jul-07	212.15	29-Oct-07	211.53

Table 1.0 – Boulevard Lake Level

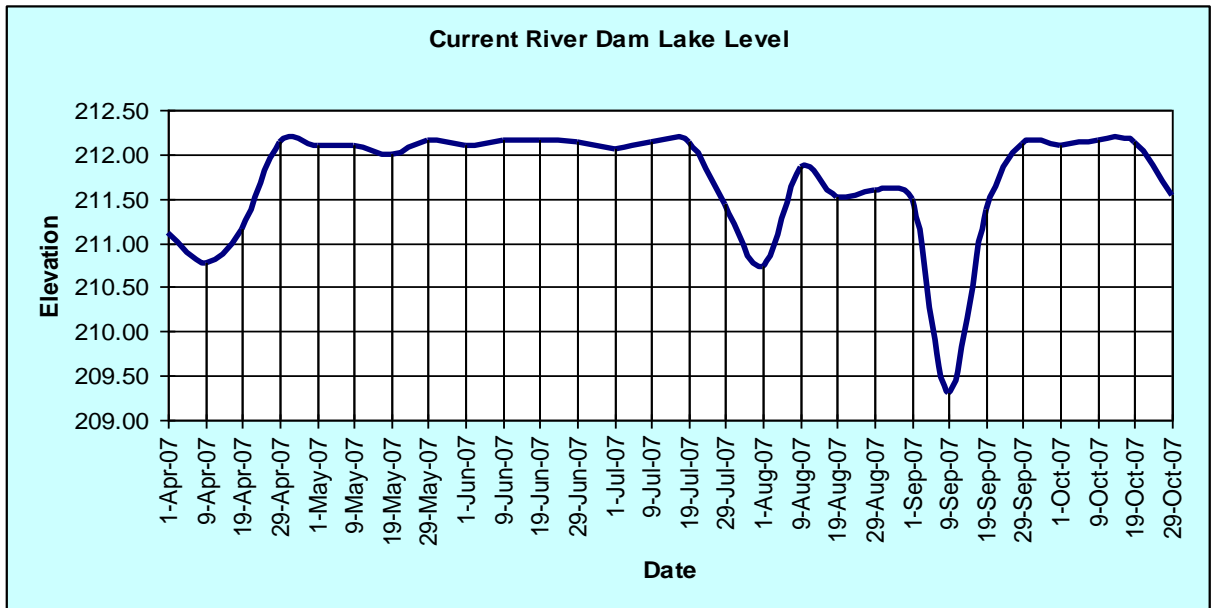


Figure 1.0 - Current River Dam / Boulevard Lake Level

Stop Log Configuration

Spring 2007

Operation of the stop logs within the dam structure and the fishway occurred during the recording period of April 1, 2007 to October 15, 2007.

A permanent diary was located in the gatehouse for maintenance staff to accurately record the configuration of the stop logs; the level of water passing over the stop logs and if any fish are spotted using the ladder.

Due to drought like conditions in the fall of 2006 and winter of 2007, it has been an extremely challenging task to maintain any kind of flow through the fish ladder in the spring of 2007.

Recording of the water level in the fish ladder commenced on April 1, 2007 and continued through to June 15, 2007 when the level logger was removed.

Ice filled the fish ladder except for the area around the logger tube on April 1, 2007, when the level logger was put into service. A fish biologist, from the Ministry of Natural Resources was consulted and it was determined that due to the low water/ice levels in Boulevard Lake in March, two aluminium gates in the fish ladder should be removed to aid flow of water through the fish ladder. With the gates removed, the elevation of the concrete notch is 210.045.

The Winter Setting of the logs was changed on April 27, 2007, to the Summer Setting when all the ice had completely melted from Boulevard Lake. Four logs were added to chute number 3 and three logs added to chute number 4 to aid in bringing the level up so water could flow through the fish ladder.

On May 11, 2007, one log was removed from chute number 1 or the fish ladder chute to try to increase the flow through the ladder. On May 14, 2007, on a routine inspection of the dam, no flow of water was observed through the fish ladder.

The data recorded in this time period is shown in Figure 3.0.

Figure 2: Boulevard Lake Dam Seasonal Operations

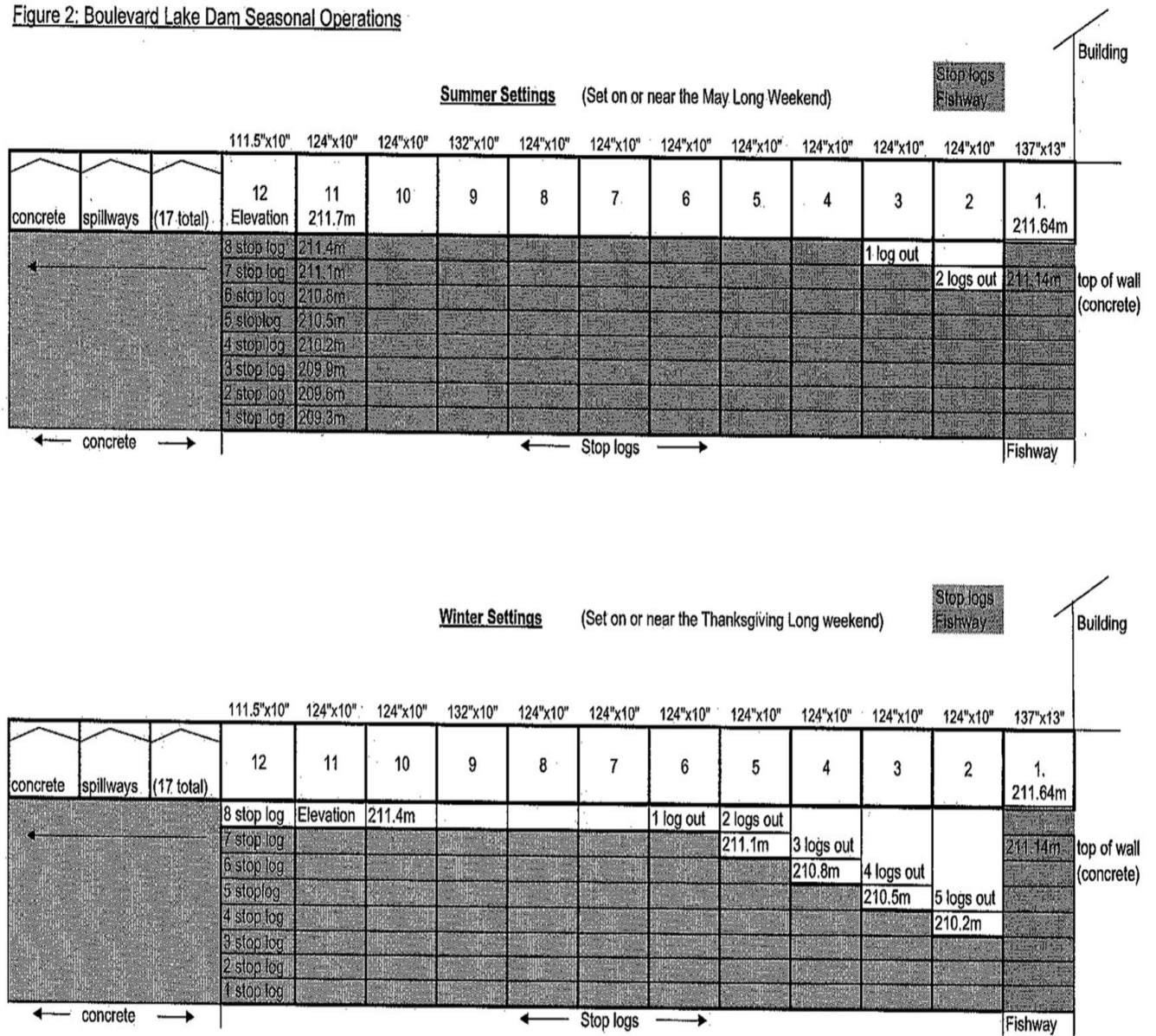


Figure 2.0 demonstrates the winter and summer stop log settings.

Fish Ladder Records

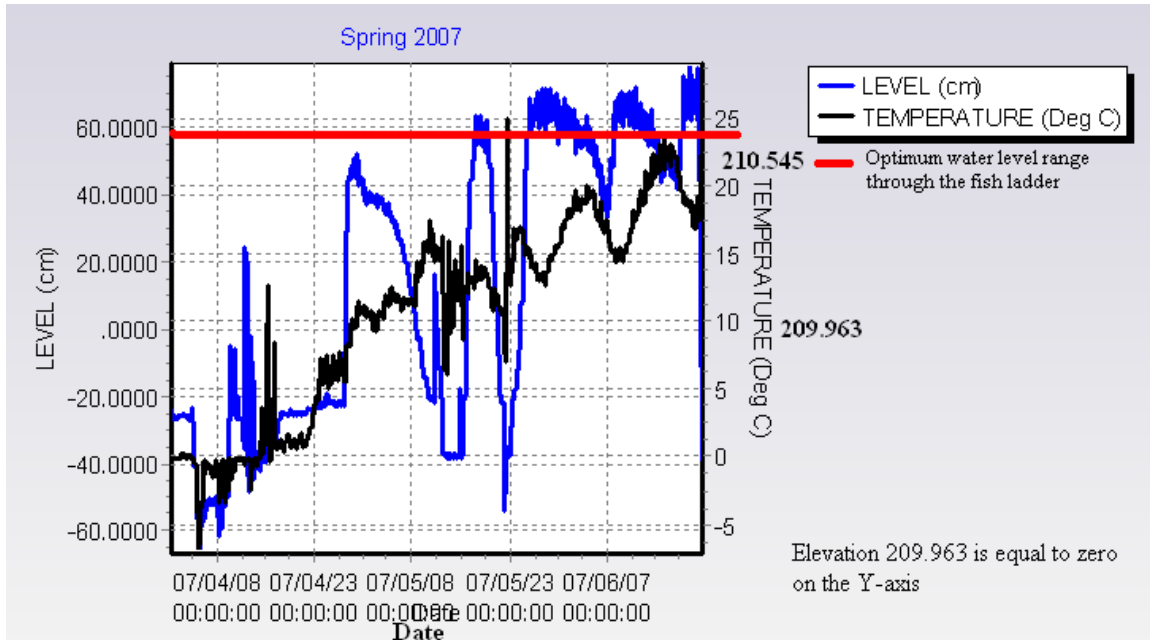


Figure 3.0 - Water Level Fish Ladder Spring 2007

See Appendix "A" for pivot table data for Spring 2007.

Fall 2007

The level logger was put back into service on September 12, 2007 and began recording data on September 15, 2007 through to October 16, 2007 when the level logger was once again removed.

The two aluminium gates in the fish ladder remained out during this recording period.

Due to above normal amounts of precipitation in mid September, the level of Boulevard Lake was high throughout that part of the recording time period, with significant amounts of water entering the fish ladder. Two logs were removed from chutes number 4, 5, and 6 on October 12, 2007. Additionally, another log was removed from chutes 4, 5, and 6 on October 15, 2007 to help control the amount of water flowing over the dam.

The data recorded in this time period is shown in Figure 4.0. The 30 cm range shown between elevation 210.845 and 210.545 is the ideal water level through the fish ladder

with the lower elevation representing the top of the wall notch in the top rung of the fish ladder.

The Winter Setting of the logs was achieved on November 16, 2007 when the lake was drained for winter maintenance.

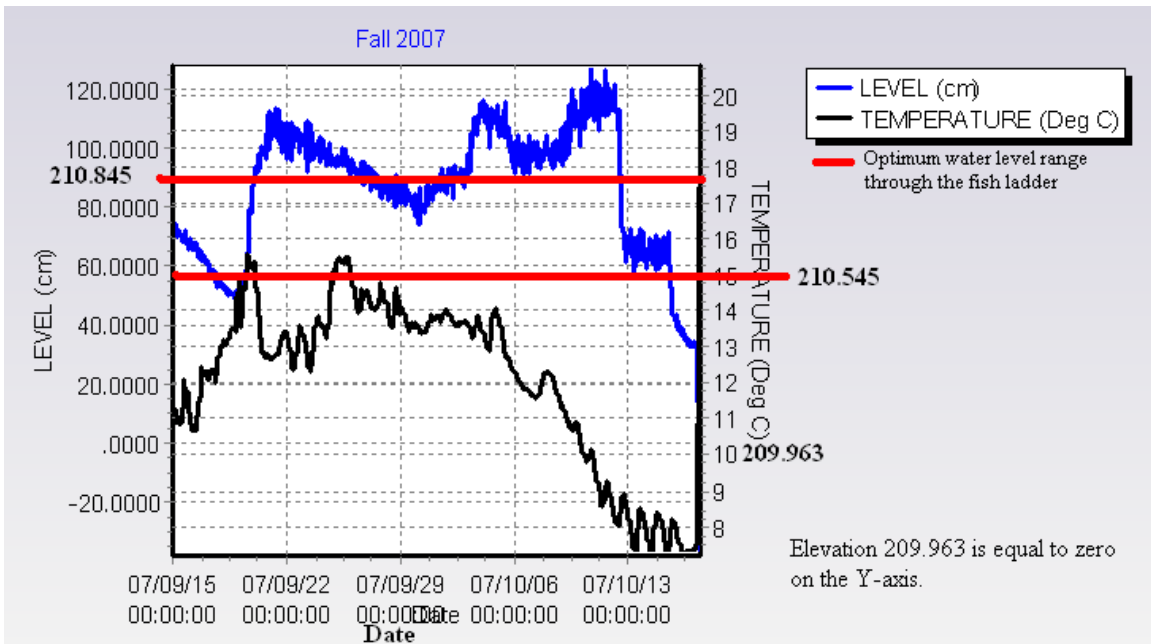


Figure 4.0 - Water Level Fish Ladder Fall 2007

See Appendix “B” for pivot table data for Fall 2007.

Generating Station Records

Run Time Records are not available for the power generating station.

The lease agreement does not require the owner of the power generating station to provide detailed run time records to the City of Thunder Bay. When the owner of the power generating station was contacted on November 7, 2006, and asked to produce any run time records for the generating station, he said, “I do not have any record of run time schedules for the generating station”.

The agreement and protocols state that that the power generator is able to draw water 0.15 m below the level set by the City as long as water is allowed to spill daily to maintain a clean lake surface” during the months that he is permitted to operate.

Based on this protocol, it is estimated that water is being used for generating electricity during certain periods as shown in Table 2.0.

DATE:	Lake Level	DATE:	Lake Level
1-Apr-07	211.10	19-Jul-07	212.14
9-Apr-07	210.76	29-Jul-07	211.44
19-Apr-07	211.14	1-Aug-07	210.73
29-Apr-07	212.14	9-Aug-07	211.86
1-May-07	212.10	19-Aug-07	211.51
9-May-07	212.10	29-Aug-07	211.60
19-May-07	212.00	1-Sep-07	211.50
29-May-07	212.15	9-Sep-07	209.30
1-Jun-07	212.10	19-Sep-07	211.37
9-Jun-07	212.15	29-Sep-07	212.12
19-Jun-07	212.15	1-Oct-07	212.10
29-Jun-07	212.13	9-Oct-07	212.15
1-Jul-07	212.06	19-Oct-07	212.15
9-Jul-07	212.15	29-Oct-07	211.53



Table 2.0 - Period of Power Generation Assumed

December 1, 2007
 City of Thunder Bay
 Engineering Division

Appendix "A"
Spring 2007 Pivot Table Data

Spring 2007 Data

DATE	Data	Total
01/04/2007	Min of LEVEL	-26.5
	Max of LEVEL	-23.7
	Average of LEVEL	-26.1
	Min of TEMPERATURE	-0.2
	Max of TEMPERATURE	-0.1
	Average of TEMPERATURE	-0.1
02/04/2007	Min of LEVEL	-26.1
	Max of LEVEL	-25.4
	Average of LEVEL	-25.8
	Min of TEMPERATURE	-0.1
	Max of TEMPERATURE	0.2
	Average of TEMPERATURE	0.0
03/04/2007	Min of LEVEL	-27.3
	Max of LEVEL	-25.6
	Average of LEVEL	-26.1
	Min of TEMPERATURE	-0.1
	Max of TEMPERATURE	0.2
	Average of TEMPERATURE	0.0
04/04/2007	Min of LEVEL	-51.4
	Max of LEVEL	-23.6
	Average of LEVEL	-34.2
	Min of TEMPERATURE	-2.8
	Max of TEMPERATURE	0.0
	Average of TEMPERATURE	-0.5
05/04/2007	Min of LEVEL	-66.6
	Max of LEVEL	-52.5
	Average of LEVEL	-59.7
	Min of TEMPERATURE	-7.1
	Max of TEMPERATURE	-0.4
	Average of TEMPERATURE	-4.2
06/04/2007	Min of LEVEL	-56.3
	Max of LEVEL	-50.4
	Average of LEVEL	-53.2
	Min of TEMPERATURE	-1.3
	Max of TEMPERATURE	-0.3
	Average of TEMPERATURE	-0.6
07/04/2007	Min of LEVEL	-52.5
	Max of LEVEL	-49.9
	Average of LEVEL	-51.6
	Min of TEMPERATURE	-1.4
	Max of TEMPERATURE	-0.3
	Average of TEMPERATURE	-0.9
08/04/2007	Min of LEVEL	-61.7
	Max of LEVEL	-49.6
	Average of LEVEL	-55.5
	Min of TEMPERATURE	-3.3
	Max of TEMPERATURE	-0.2
	Average of TEMPERATURE	-1.5
09/04/2007	Min of LEVEL	-52.5

	Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-26.7 -44.2 -3.3 -0.1 -1.6
10/04/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-27.2 -4.8 -14.7 -1.6 -0.1 -0.7
11/04/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-28.7 -20.0 -25.9 -0.2 -0.1 -0.2
12/04/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-46.6 24.3 -26.1 -0.6 -0.1 -0.2
13/04/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-48.1 -2.1 -30.2 -2.4 -0.1 -0.5
14/04/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-42.0 -36.4 -39.6 -0.7 3.6 0.4
15/04/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-39.9 -34.5 -37.9 0.2 12.7 3.7
16/04/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-39.5 -27.9 -36.6 -0.3 8.5 2.2
17/04/2007	Min of LEVEL Max of LEVEL Average of LEVEL	-34.0 -24.7 -29.3

	Min of TEMPERATURE	0.5
	Max of TEMPERATURE	1.4
	Average of TEMPERATURE	0.9
18/04/2007	Min of LEVEL	-25.6
	Max of LEVEL	-24.7
	Average of LEVEL	-25.1
	Min of TEMPERATURE	0.4
	Max of TEMPERATURE	1.7
	Average of TEMPERATURE	1.0
19/04/2007	Min of LEVEL	-25.7
	Max of LEVEL	-24.2
	Average of LEVEL	-25.1
	Min of TEMPERATURE	0.7
	Max of TEMPERATURE	1.6
	Average of TEMPERATURE	1.1
20/04/2007	Min of LEVEL	-25.7
	Max of LEVEL	-24.6
	Average of LEVEL	-25.0
	Min of TEMPERATURE	0.6
	Max of TEMPERATURE	1.7
	Average of TEMPERATURE	1.1
21/04/2007	Min of LEVEL	-25.3
	Max of LEVEL	-24.0
	Average of LEVEL	-24.7
	Min of TEMPERATURE	0.7
	Max of TEMPERATURE	1.7
	Average of TEMPERATURE	1.1
22/04/2007	Min of LEVEL	-24.8
	Max of LEVEL	-23.6
	Average of LEVEL	-23.9
	Min of TEMPERATURE	1.4
	Max of TEMPERATURE	3.3
	Average of TEMPERATURE	2.3
23/04/2007	Min of LEVEL	-24.2
	Max of LEVEL	-22.3
	Average of LEVEL	-23.0
	Min of TEMPERATURE	3.3
	Max of TEMPERATURE	6.7
	Average of TEMPERATURE	4.7
24/04/2007	Min of LEVEL	-23.0
	Max of LEVEL	-19.0
	Average of LEVEL	-21.5
	Min of TEMPERATURE	5.4
	Max of TEMPERATURE	7.6
	Average of TEMPERATURE	6.6
25/04/2007	Min of LEVEL	-22.1
	Max of LEVEL	-19.1
	Average of LEVEL	-20.9
	Min of TEMPERATURE	5.1
	Max of TEMPERATURE	7.6

	Average of TEMPERATURE	6.3
26/04/2007	Min of LEVEL	-22.6
	Max of LEVEL	-21.3
	Average of LEVEL	-22.0
	Min of TEMPERATURE	5.7
	Max of TEMPERATURE	7.7
	Average of TEMPERATURE	6.7
27/04/2007	Min of LEVEL	-22.7
	Max of LEVEL	24.6
	Average of LEVEL	-11.2
	Min of TEMPERATURE	5.5
	Max of TEMPERATURE	8.1
	Average of TEMPERATURE	6.5
28/04/2007	Min of LEVEL	26.6
	Max of LEVEL	48.9
	Average of LEVEL	43.1
	Min of TEMPERATURE	8.2
	Max of TEMPERATURE	10.2
	Average of TEMPERATURE	8.9
29/04/2007	Min of LEVEL	42.8
	Max of LEVEL	52.3
	Average of LEVEL	48.0
	Min of TEMPERATURE	9.6
	Max of TEMPERATURE	11.4
	Average of TEMPERATURE	10.4
30/04/2007	Min of LEVEL	38.3
	Max of LEVEL	45.6
	Average of LEVEL	42.3
	Min of TEMPERATURE	10.5
	Max of TEMPERATURE	11.1
	Average of TEMPERATURE	10.7
01/05/2007	Min of LEVEL	37.1
	Max of LEVEL	40.7
	Average of LEVEL	38.9
	Min of TEMPERATURE	10.1
	Max of TEMPERATURE	11.0
	Average of TEMPERATURE	10.5
02/05/2007	Min of LEVEL	36.4
	Max of LEVEL	40.0
	Average of LEVEL	38.6
	Min of TEMPERATURE	9.4
	Max of TEMPERATURE	10.7
	Average of TEMPERATURE	9.9
03/05/2007	Min of LEVEL	35.3
	Max of LEVEL	39.1
	Average of LEVEL	37.3
	Min of TEMPERATURE	10.3
	Max of TEMPERATURE	11.8
	Average of TEMPERATURE	10.7
04/05/2007	Min of LEVEL	32.0

	Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	37.4 34.4 11.2 12.5 11.8
05/05/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	26.8 33.2 30.5 11.5 12.5 11.9
06/05/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	20.4 28.5 24.5 10.9 11.8 11.4
07/05/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	10.2 20.4 15.8 11.4 11.8 11.5
08/05/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-2.8 10.3 3.6 11.2 14.4 12.2
09/05/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-14.7 -2.9 -8.4 13.2 15.8 14.2
10/05/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-21.0 -14.6 -18.3 15.2 17.5 16.0
11/05/2007	Min of LEVEL Max of LEVEL Average of LEVEL Min of TEMPERATURE Max of TEMPERATURE Average of TEMPERATURE	-21.9 16.2 -5.7 14.5 16.5 15.2
12/05/2007	Min of LEVEL Max of LEVEL Average of LEVEL	-37.6 -2.3 -19.4

	Min of TEMPERATURE	11.2
	Max of TEMPERATURE	16.4
	Average of TEMPERATURE	14.6
13/05/2007	Min of LEVEL	-38.3
	Max of LEVEL	-37.2
	Average of LEVEL	-37.5
	Min of TEMPERATURE	6.2
	Max of TEMPERATURE	16.0
	Average of TEMPERATURE	10.9
14/05/2007	Min of LEVEL	-38.2
	Max of LEVEL	-37.0
	Average of LEVEL	-37.6
	Min of TEMPERATURE	9.1
	Max of TEMPERATURE	14.7
	Average of TEMPERATURE	11.4
15/05/2007	Min of LEVEL	-38.4
	Max of LEVEL	-17.4
	Average of LEVEL	-31.1
	Min of TEMPERATURE	10.1
	Max of TEMPERATURE	15.6
	Average of TEMPERATURE	12.6
16/05/2007	Min of LEVEL	-37.8
	Max of LEVEL	39.1
	Average of LEVEL	6.4
	Min of TEMPERATURE	8.7
	Max of TEMPERATURE	13.7
	Average of TEMPERATURE	12.2
17/05/2007	Min of LEVEL	41.8
	Max of LEVEL	63.0
	Average of LEVEL	51.7
	Min of TEMPERATURE	12.5
	Max of TEMPERATURE	14.6
	Average of TEMPERATURE	13.2
18/05/2007	Min of LEVEL	54.5
	Max of LEVEL	63.0
	Average of LEVEL	58.4
	Min of TEMPERATURE	13.0
	Max of TEMPERATURE	14.2
	Average of TEMPERATURE	13.4
19/05/2007	Min of LEVEL	50.7
	Max of LEVEL	62.2
	Average of LEVEL	57.6
	Min of TEMPERATURE	12.7
	Max of TEMPERATURE	13.9
	Average of TEMPERATURE	13.4
20/05/2007	Min of LEVEL	8.0
	Max of LEVEL	50.1
	Average of LEVEL	29.4

	Min of TEMPERATURE	10.9
	Max of TEMPERATURE	12.6
	Average of TEMPERATURE	11.7
21/05/2007	Min of LEVEL	-22.3
	Max of LEVEL	6.7
	Average of LEVEL	-12.1
	Min of TEMPERATURE	10.5
	Max of TEMPERATURE	11.9
	Average of TEMPERATURE	11.1
22/05/2007	Min of LEVEL	-53.9
	Max of LEVEL	-22.2
	Average of LEVEL	-38.9
	Min of TEMPERATURE	7.1
	Max of TEMPERATURE	25.1
	Average of TEMPERATURE	12.7
23/05/2007	Min of LEVEL	-37.7
	Max of LEVEL	-17.6
	Average of LEVEL	-25.0
	Min of TEMPERATURE	12.7
	Max of TEMPERATURE	16.9
	Average of TEMPERATURE	14.6
24/05/2007	Min of LEVEL	-16.4
	Max of LEVEL	11.1
	Average of LEVEL	-5.8
	Min of TEMPERATURE	16.3
	Max of TEMPERATURE	17.1
	Average of TEMPERATURE	16.7
25/05/2007	Min of LEVEL	12.8
	Max of LEVEL	59.8
	Average of LEVEL	40.6
	Min of TEMPERATURE	14.9
	Max of TEMPERATURE	16.6
	Average of TEMPERATURE	15.5
26/05/2007	Min of LEVEL	59.0
	Max of LEVEL	69.0
	Average of LEVEL	63.8
	Min of TEMPERATURE	14.0
	Max of TEMPERATURE	14.9
	Average of TEMPERATURE	14.4
27/05/2007	Min of LEVEL	59.8
	Max of LEVEL	71.2
	Average of LEVEL	66.3
	Min of TEMPERATURE	13.1
	Max of TEMPERATURE	13.9
	Average of TEMPERATURE	13.4
28/05/2007	Min of LEVEL	59.0
	Max of LEVEL	71.6
	Average of LEVEL	65.5
	Min of TEMPERATURE	12.7

	Max of TEMPERATURE	14.5
	Average of TEMPERATURE	13.4
29/05/2007	Min of LEVEL	61.9
	Max of LEVEL	71.6
	Average of LEVEL	65.5
	Min of TEMPERATURE	14.5
	Max of TEMPERATURE	15.7
	Average of TEMPERATURE	14.9
30/05/2007	Min of LEVEL	55.2
	Max of LEVEL	69.9
	Average of LEVEL	63.9
	Min of TEMPERATURE	15.5
	Max of TEMPERATURE	17.2
	Average of TEMPERATURE	15.9
31/05/2007	Min of LEVEL	58.0
	Max of LEVEL	68.7
	Average of LEVEL	62.8
	Min of TEMPERATURE	16.9
	Max of TEMPERATURE	18.4
	Average of TEMPERATURE	17.4
01/06/2007	Min of LEVEL	57.3
	Max of LEVEL	66.0
	Average of LEVEL	61.1
	Min of TEMPERATURE	17.7
	Max of TEMPERATURE	19.2
	Average of TEMPERATURE	18.3
02/06/2007	Min of LEVEL	52.0
	Max of LEVEL	62.4
	Average of LEVEL	58.7
	Min of TEMPERATURE	18.2
	Max of TEMPERATURE	19.7
	Average of TEMPERATURE	18.9
03/06/2007	Min of LEVEL	53.6
	Max of LEVEL	63.1
	Average of LEVEL	57.3
	Min of TEMPERATURE	18.7
	Max of TEMPERATURE	20.1
	Average of TEMPERATURE	19.1
04/06/2007	Min of LEVEL	48.4
	Max of LEVEL	59.3
	Average of LEVEL	54.6
	Min of TEMPERATURE	19.1
	Max of TEMPERATURE	19.8
	Average of TEMPERATURE	19.5
05/06/2007	Min of LEVEL	45.0
	Max of LEVEL	54.8
	Average of LEVEL	50.0
	Min of TEMPERATURE	17.5
	Max of TEMPERATURE	19.0

	Average of TEMPERATURE	18.0
06/06/2007	Min of LEVEL	35.4
	Max of LEVEL	47.2
	Average of LEVEL	40.8
	Min of TEMPERATURE	16.6
	Max of TEMPERATURE	18.9
	Average of TEMPERATURE	17.1
07/06/2007	Min of LEVEL	33.0
	Max of LEVEL	62.2
	Average of LEVEL	44.4
	Min of TEMPERATURE	15.1
	Max of TEMPERATURE	17.2
	Average of TEMPERATURE	16.0
08/06/2007	Min of LEVEL	58.3
	Max of LEVEL	70.0
	Average of LEVEL	64.5
	Min of TEMPERATURE	14.4
	Max of TEMPERATURE	15.4
	Average of TEMPERATURE	14.9
09/06/2007	Min of LEVEL	60.4
	Max of LEVEL	70.9
	Average of LEVEL	65.7
	Min of TEMPERATURE	14.4
	Max of TEMPERATURE	15.7
	Average of TEMPERATURE	15.0
10/06/2007	Min of LEVEL	60.8
	Max of LEVEL	70.9
	Average of LEVEL	66.2
	Min of TEMPERATURE	15.6
	Max of TEMPERATURE	18.1
	Average of TEMPERATURE	16.4
11/06/2007	Min of LEVEL	59.3
	Max of LEVEL	71.8
	Average of LEVEL	64.4
	Min of TEMPERATURE	17.6
	Max of TEMPERATURE	19.1
	Average of TEMPERATURE	18.1
12/06/2007	Min of LEVEL	56.5
	Max of LEVEL	67.3
	Average of LEVEL	62.5
	Min of TEMPERATURE	18.6
	Max of TEMPERATURE	21.2
	Average of TEMPERATURE	19.5
13/06/2007	Min of LEVEL	54.8
	Max of LEVEL	65.2
	Average of LEVEL	59.5
	Min of TEMPERATURE	19.9
	Max of TEMPERATURE	22.2
	Average of TEMPERATURE	20.7
14/06/2007	Min of LEVEL	52.1

	Max of LEVEL	59.7
	Average of LEVEL	55.5
	Min of TEMPERATURE	20.7
	Max of TEMPERATURE	23.1
	Average of TEMPERATURE	21.5
15/06/2007	Min of LEVEL	44.1
	Max of LEVEL	53.6
	Average of LEVEL	48.6
	Min of TEMPERATURE	21.3
	Max of TEMPERATURE	23.4
	Average of TEMPERATURE	22.4

Appendix “B”

Fall 2007 Pivot Table Data

Fall 2007 Data

DATE	Data	Total
15/09/2007	Min of LEVEL	65.6
	Max of LEVEL	74.2
	Average of LEVEL	69.8
	Min of TEMPERATURE	10.8
	Max of TEMPERATURE	12.1
	Average of TEMPERATURE	11.3
16/09/2007	Min of LEVEL	61.7
	Max of LEVEL	68.8
	Average of LEVEL	65.1
	Min of TEMPERATURE	10.7
	Max of TEMPERATURE	12.4
	Average of TEMPERATURE	11.4
17/09/2007	Min of LEVEL	52.9
	Max of LEVEL	61.9
	Average of LEVEL	57.4
	Min of TEMPERATURE	12.0
	Max of TEMPERATURE	13.0
	Average of TEMPERATURE	12.4
18/09/2007	Min of LEVEL	48.2
	Max of LEVEL	53.9
	Average of LEVEL	51.0
	Min of TEMPERATURE	13.0
	Max of TEMPERATURE	14.3
	Average of TEMPERATURE	13.3
19/09/2007	Min of LEVEL	47.7
	Max of LEVEL	89.3
	Average of LEVEL	63.5
	Min of TEMPERATURE	13.5
	Max of TEMPERATURE	15.6
	Average of TEMPERATURE	14.9
20/09/2007	Min of LEVEL	89.9
	Max of LEVEL	112.0
	Average of LEVEL	98.9
	Min of TEMPERATURE	12.7
	Max of TEMPERATURE	15.4
	Average of TEMPERATURE	13.4
21/09/2007	Min of LEVEL	98.4
	Max of LEVEL	113.1
	Average of LEVEL	106.3
	Min of TEMPERATURE	12.7

	Max of TEMPERATURE	13.4
	Average of TEMPERATURE	13.0
22/09/2007	Min of LEVEL	95.2
	Max of LEVEL	108.7
	Average of LEVEL	102.9
	Min of TEMPERATURE	12.4
	Max of TEMPERATURE	13.6
	Average of TEMPERATURE	13.0
23/09/2007	Min of LEVEL	92.0
	Max of LEVEL	109.2
	Average of LEVEL	100.7
	Min of TEMPERATURE	12.3
	Max of TEMPERATURE	13.8
	Average of TEMPERATURE	13.0
24/09/2007	Min of LEVEL	94.0
	Max of LEVEL	103.7
	Average of LEVEL	97.1
	Min of TEMPERATURE	13.3
	Max of TEMPERATURE	15.2
	Average of TEMPERATURE	14.0
25/09/2007	Min of LEVEL	89.8
	Max of LEVEL	100.1
	Average of LEVEL	95.3
	Min of TEMPERATURE	15.1
	Max of TEMPERATURE	15.5
	Average of TEMPERATURE	15.3
26/09/2007	Min of LEVEL	87.8
	Max of LEVEL	96.2
	Average of LEVEL	92.0
	Min of TEMPERATURE	13.9
	Max of TEMPERATURE	15.0
	Average of TEMPERATURE	14.4
27/09/2007	Min of LEVEL	82.8
	Max of LEVEL	93.5
	Average of LEVEL	88.6
	Min of TEMPERATURE	14.0
	Max of TEMPERATURE	14.8
	Average of TEMPERATURE	14.3
28/09/2007	Min of LEVEL	79.9
	Max of LEVEL	90.8
	Average of LEVEL	85.6
	Min of TEMPERATURE	13.6
	Max of TEMPERATURE	14.6
	Average of TEMPERATURE	14.1
29/09/2007	Min of LEVEL	76.7
	Max of LEVEL	88.9
	Average of LEVEL	83.3
	Min of TEMPERATURE	13.4
	Max of TEMPERATURE	14.1
	Average of TEMPERATURE	13.7

30/09/2007	Min of LEVEL	74.3
	Max of LEVEL	87.4
	Average of LEVEL	81.4
	Min of TEMPERATURE	13.4
	Max of TEMPERATURE	13.9
	Average of TEMPERATURE	13.5
01/10/2007	Min of LEVEL	84.2
	Max of LEVEL	92.6
	Average of LEVEL	87.5
	Min of TEMPERATURE	13.7
	Max of TEMPERATURE	14.0
	Average of TEMPERATURE	13.8
02/10/2007	Min of LEVEL	82.9
	Max of LEVEL	94.4
	Average of LEVEL	90.2
	Min of TEMPERATURE	13.6
	Max of TEMPERATURE	13.9
	Average of TEMPERATURE	13.7
03/10/2007	Min of LEVEL	89.1
	Max of LEVEL	111.2
	Average of LEVEL	102.1
	Min of TEMPERATURE	13.3
	Max of TEMPERATURE	13.8
	Average of TEMPERATURE	13.6
04/10/2007	Min of LEVEL	99.7
	Max of LEVEL	116.4
	Average of LEVEL	110.4
	Min of TEMPERATURE	12.9
	Max of TEMPERATURE	14.0
	Average of TEMPERATURE	13.5
05/10/2007	Min of LEVEL	95.8
	Max of LEVEL	115.5
	Average of LEVEL	105.1
	Min of TEMPERATURE	12.4
	Max of TEMPERATURE	13.9
	Average of TEMPERATURE	13.0
06/10/2007	Min of LEVEL	90.9
	Max of LEVEL	104.4
	Average of LEVEL	96.8
	Min of TEMPERATURE	11.8
	Max of TEMPERATURE	12.3
	Average of TEMPERATURE	12.0
07/10/2007	Min of LEVEL	93.0
	Max of LEVEL	103.9
	Average of LEVEL	97.7
	Min of TEMPERATURE	11.6
	Max of TEMPERATURE	12.3
	Average of TEMPERATURE	11.8
08/10/2007	Min of LEVEL	92.9
	Max of LEVEL	106.1

	Average of LEVEL	98.9
	Min of TEMPERATURE	11.3
	Max of TEMPERATURE	12.3
	Average of TEMPERATURE	11.9
09/10/2007	Min of LEVEL	94.2
	Max of LEVEL	119.6
	Average of LEVEL	108.0
	Min of TEMPERATURE	10.7
	Max of TEMPERATURE	11.4
	Average of TEMPERATURE	10.9
10/10/2007	Min of LEVEL	100.4
	Max of LEVEL	127.6
	Average of LEVEL	114.1
	Min of TEMPERATURE	9.7
	Max of TEMPERATURE	10.6
	Average of TEMPERATURE	10.0
11/10/2007	Min of LEVEL	105.4
	Max of LEVEL	126.5
	Average of LEVEL	115.7
	Min of TEMPERATURE	8.6
	Max of TEMPERATURE	9.6
	Average of TEMPERATURE	9.0
12/10/2007	Min of LEVEL	61.6
	Max of LEVEL	121.3
	Average of LEVEL	96.2
	Min of TEMPERATURE	8.0
	Max of TEMPERATURE	8.9
	Average of TEMPERATURE	8.4
13/10/2007	Min of LEVEL	56.2
	Max of LEVEL	72.9
	Average of LEVEL	67.3
	Min of TEMPERATURE	7.3
	Max of TEMPERATURE	8.5
	Average of TEMPERATURE	8.0
14/10/2007	Min of LEVEL	58.2
	Max of LEVEL	70.7
	Average of LEVEL	64.4
	Min of TEMPERATURE	7.2
	Max of TEMPERATURE	8.4
	Average of TEMPERATURE	7.8
15/10/2007	Min of LEVEL	41.0
	Max of LEVEL	71.1
	Average of LEVEL	58.2
	Min of TEMPERATURE	7.3
	Max of TEMPERATURE	8.3
	Average of TEMPERATURE	7.9