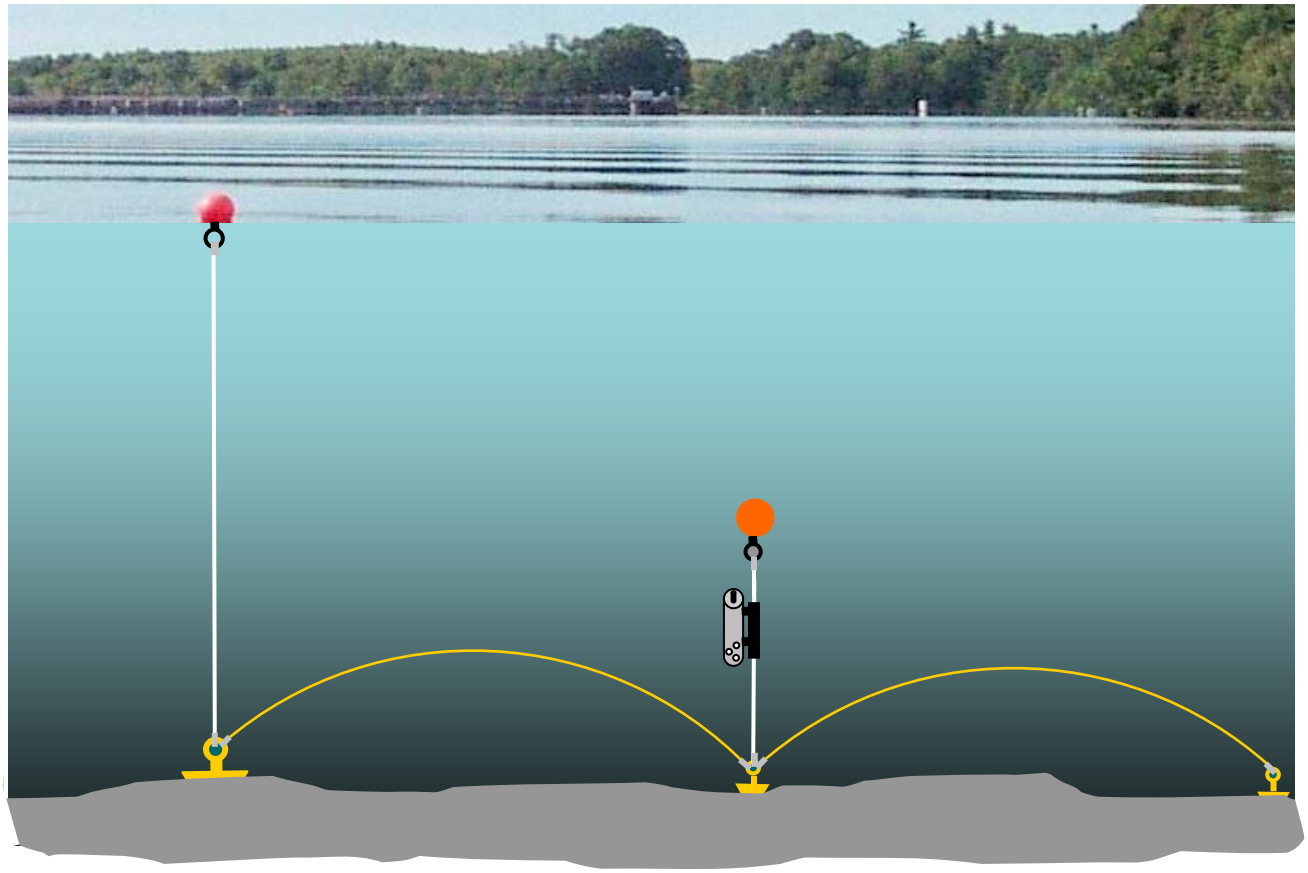
FINAL REPORT
of
WATER-QUALITY MONITORING DATA

JUNE - SEPTEMBER 2006

- **Androscoggin River At Turner Bridge (Turn I & Turn II)**
- **Gulf Island Pond Deep- Hole 0.6 Mi Above Dam**
- **Gulf Island Pond 05-Ft. Level 0.2 Mi Above Dam**
- **Gulf Island Pond 20-Ft. Level 0.2 Mi Above Dam**
- **Gulf Island Pond 35-Ft. Level 0.2 Mi Above Dam**
- **Gulf Island Pond 50-Ft. Level 0.2 Mi Above Dam**



Gulf Island Pond Deep-Hole Monitor

WATER MONITORING SERVICES, INC.
Surface & Ground Water Measurements
Full Liability Insurance
30+ yrs Experience

55 GETCHELL'S CORNER RD.
VASSALBORO, ME 04989
E-Mail wbhiggins@adelphia.net
Tel (207)-877-0558

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Friday, October 20, 2006

TO: Gulf Island Pond Oxygenation Partnership

FROM: Water Monitoring Services, Inc.

SUBJECT: Water-Quality Monitoring Data

Enclosed is the June-September 2006 "Final Data Report" of Water-Quality Monitoring Data for the Gulf Island Pond Water-Quality Monitors. This data report meets the criteria and standards of Water Monitoring Services Quality-assurance and Quality-control procedures and supersedes Provisional Data Reports I and II for June -September 2006.

Please call if you have any questions.

Sincerely;

Wayne B. Higgins, Pres

Report copies to:
Allen Wiley, FPL
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INTRODUCTION

The data contained in this report is the final computation of the water-quality monitoring data for 2006. This report supersedes two provisional data reports released for **(1)** June to July and **(2)** August to September. The data was collected and processed by Water Monitoring Services, Inc. for the Gulf Island Pond Oxygenation Project Partnership (GIPOP).

The GIPOP Partnership consists of Fraser Paper Inc. Berlin, NH., New Page Corp. Rumford, ME., International Paper Co. Jay, ME and Florida Power and Light Miami, FL.

GIPOP operated seven continuous recording water-quality monitors on Gulf Island Pond during the 2006 season to validate the water-quality models used to manage operation of the oxygen injection system.

DEFINITION OF TERMS

Corrections may be applied due to uniform or non-uniform errors. A non-uniform error produces a record in which the amount of error, usually increases or decreases gradually throughout the erroneous part of the record and is pro-rated over time, (i.e. sensor fouling and/or calibration drift). A uniform error produces values that are displaced by the same amount throughout the erroneous part of the record, (i.e. calibration error or electronic failure).

Daily Values are the maximum, minimum and mean values for each day. Note, days with less than 18 hours of record are reported as missing due to equipment malfunctions.

Dissolved-Oxygen (DO) (mg/L) is the equilibrium concentration of dissolved oxygen in water in contact with air and is a function of temperature and pressure.

Milligrams per liter (mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water.

Monitoring Point is the location of the monitor (In-situ sonde) or pump intake in the river. In moving bodies of water the monitor is horizontally and vertically placed to represent the mean values in the cross-section. In slow moving bodies of water the monitor may only represent the extremes in the cross-section.

On-Site Inspections are conducted on an ad-hoc basis to address monitor malfunctions, and on a scheduled periodic basis. The frequency of the scheduled site inspections, depends on the water-quality characteristics of the river site being monitored.

Oxygen Dissolved (OD) (% Sat) a calculation of the concurrent dissolved oxygen and water temperature relative to 100 percent air saturation at atmospheric pressure 760 mm Hg.

pH (Standard Units) is a symbol denoting the negative logarithm (base 10) of the hydrogen ion concentration of a solution; pH values range from 0 to 14, the lower the value, the more acid the solution.

Quality-Assurance (QA) are practices followed to assure certainty in the data collected. The Quality-Assurance process should not be confused with Quality-Control, which is a separate but related function.

Quality-Control (QC) are procedures used to calibrate and maintain the sensors within Quality-Control Limits.

Quality-Control Limits (QCL) define the value limits for probe fouling and/or calibration drift. Values verified outside the Quality-Control Limits with calibration checks and independent parameter measurements are used to correct the recorded parameter data.

Specific Conductance (SC) (µs/cm) is a measurement of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C.

Water Temperature (WT) (°C) is the degree of hotness or coldness measured on a Celsius scale.

QUALITY-ASSURANCE PLAN

Water Monitoring Services, Inc. implements procedures and guidelines for water-quality data collection and analysis as published in the U. S. Geological Survey's Techniques of Water-Resources Investigations. These practices assure certainty in the monitoring data recorded.

Quality-Assurance; Daily data interrogation, scheduled and emergency on-site inspections, on-site independent parameter measurements, check of field calibrations against lab calibrated instruments.

Quality-Control; NIST traceable calibration solutions, on-site calibrations at the prevailing water temperature, applying verified corrections to the recorded data.

Quality-Control limits; Established limits for fouling and/or calibration drift. Water Temperature $\pm$ 0.2 °C, Dissolved-Oxygen $\pm$ 0.2 mg/L, Specific Conductance $\pm$ 5 µs/cm, pH $\pm$ 0.2 units.

ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn I)

LOCATION.-- Lat. 44° 15' 22", Long 70° 10' 50", Androscoggin County, on right downstream end of Turner Bridge, 2.7 miles below mouth of Nezinscot River, 3.1 miles above the oxygen injection system in Greene and 8.0 miles above Gulf Island Dam.

DRAINAGE AREA.-- 2,840 mi ².

PERIOD OF RECORD.-- 1994 to current year. Continuous water temperature records were collected at this site at different monitoring points from May to September 1981.

PERIOD OF DAILY RECORD.-- Seasonal June to September.
Water Temperature: June 1994 to current year.
Dissolved Oxygen: June 1994 to current year.
Oxygen Dissolved: June 1996 to current year.
Specific Conductance: June 1994 to current year.
pH: June 1999 to current year.

EXTREMES RECORDED FOR PERIOD OF DAILY RECORD.--
Water Temperature: Maximum, 28.8 °C, Aug. 9, 2001; minimum, 12.2 °C, June 1, 2005.
Dissolved Oxygen: Maximum, 11.6 mg/L, June 13, 2002; minimum, 3.9 mg/L, Aug 14, 2002.
Oxygen Dissolved: Maximum, 116 % sat. July 2, 2000; minimum, 47 % sat. Aug. 2, 2003.
Specific Conductance: Maximum, 286 µs/cm, Sept. 16, 1995; minimum, 25 µs/cm, June 15, 16, 1998.
pH: Maximum, 7.8 units, Aug. 19, 2001; minimum, 5.9 units, Sept. 18, 1999.

INSTRUMENTATION.-- Monitoring point located 75-ft streamward from right bank and 5.0-ft above the river bed. Prior to July 29, 2004, monitoring point was located 1.5-ft above the river bed. Electronic data-logger, real-time data retrieved by phone telemetry.

REMARKS.-- Monitor not operated during period October to May. Other interruptions in the record were due to malfunctions of the monitor. Data for 1994 to 1995 was published annually in the report series "Water Resources Data for Maine" by the U. S. Geological Survey. Beginning 1996, the data was published annually by Water Monitoring Services, Inc.

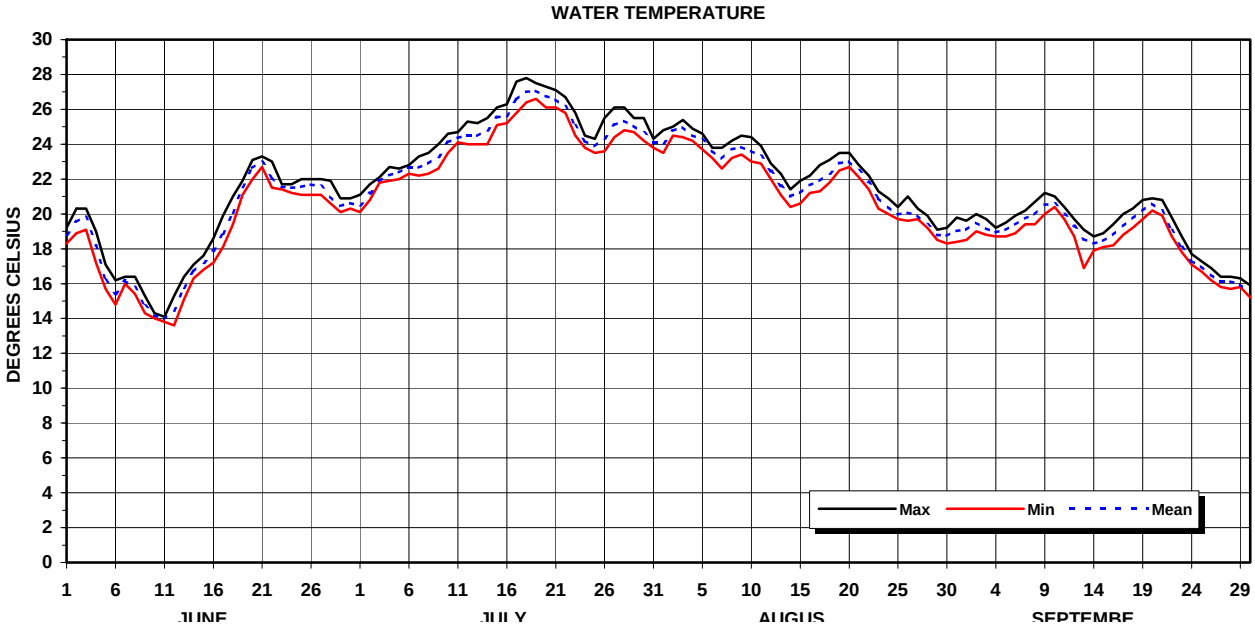
CURRENT YEAR, 2006

EXTREMES RECORDED.--
Water Temperature: Maximum, 27.8 °C, July 18; minimum, 13.6 °C, June 12.
Dissolved Oxygen: Maximum, 10.7 mg/L, June 11, 12; minimum, 6.5 mg/L, July 22, Aug. 1.
Oxygen Dissolved: Maximum, 106 % sat. June 12; minimum, 77 % sat. Aug 1.
Specific Conductance: Maximum, 122 µs/cm, Aug. 21, 22; minimum, 30 µs/cm, June 11, 12.
pH: Maximum, 7.3 units, Sept. 11, 12; minimum, 6.6 units, June 11-13, Aug 1.

ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn I)

WATER TEMPERATURE, DEGREES CELSIUS, 2006

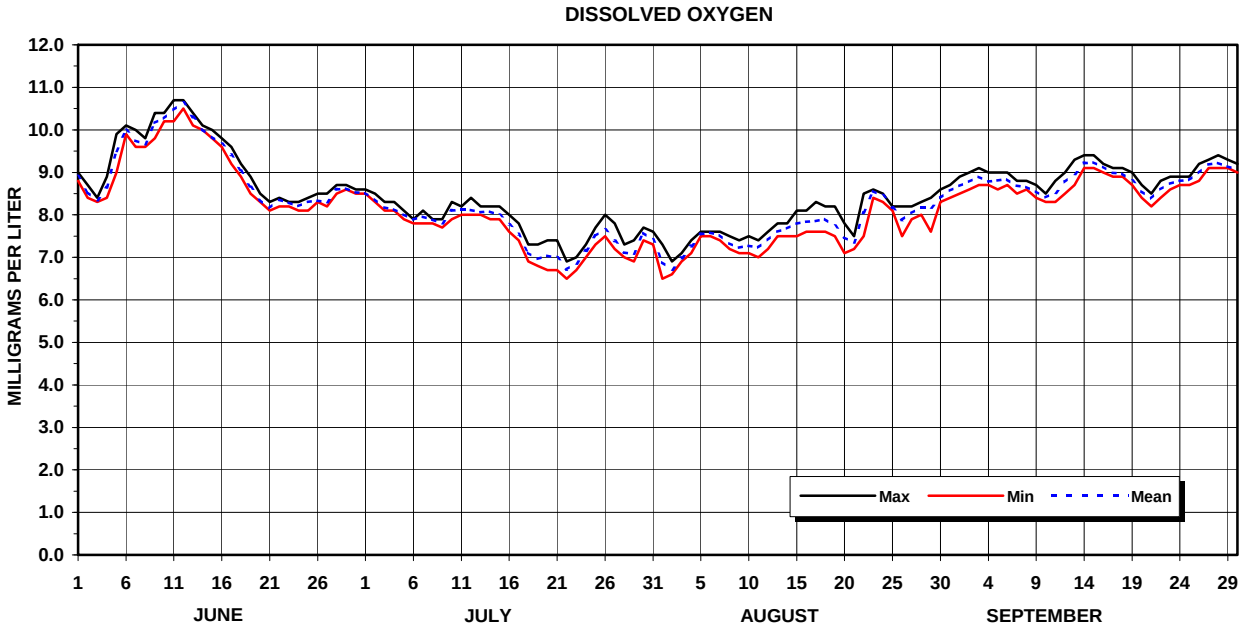
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.2	18.3	18.8	21.1	20.1	20.5	24.8	23.5	24.1	19.6	18.5	19.1
2	20.3	18.9	19.5	21.7	20.8	21.2	25.0	24.5	24.8	20.0	19.0	19.5
3	20.3	19.1	19.8	22.1	21.8	21.9	25.4	24.4	25.0	19.7	18.8	19.2
4	19.0	17.2	18.2	22.7	21.9	22.2	24.9	24.2	24.5	19.2	18.7	18.9
5	17.1	15.7	16.2	22.6	22.0	22.4	24.6	23.7	24.2	19.5	18.7	19.1
6	16.2	14.8	15.4	22.8	22.3	22.7	23.8	23.2	23.6	19.9	18.9	19.4
7	16.4	16.0	16.2	23.3	22.2	22.7	23.8	22.6	23.2	20.2	19.4	19.7
8	16.4	15.4	15.8	23.5	22.3	22.9	24.2	23.2	23.7	20.7	19.4	20.0
9	15.3	14.3	14.7	24.0	22.6	23.3	24.5	23.4	23.8	21.2	20.0	20.5
10	14.3	14.0	14.2	24.6	23.5	24.1	24.4	23.0	23.6	21.0	20.4	20.6
11	14.1	13.8	14.0	24.7	24.1	24.4	23.9	22.9	23.3	20.4	19.7	20.0
12	15.3	13.6	14.4	25.3	24.0	24.5	22.9	22.0	22.4	19.7	18.7	19.3
13	16.4	15.1	15.8	25.2	24.0	24.5	22.3	21.1	21.6	19.1	16.9	18.6
14	17.1	16.3	16.7	25.5	24.0	24.8	21.4	20.4	21.0	18.7	17.9	18.3
15	17.6	16.8	17.2	26.1	25.1	25.5	21.9	20.6	21.2	18.9	18.1	18.5
16	18.6	17.2	17.9	26.3	25.2	25.6	22.2	21.2	21.6	19.4	18.2	18.8
17	19.9	18.1	18.9	27.6	25.8	26.6	22.8	21.3	21.9	20.0	18.8	19.3
18	21.0	19.4	20.1	27.8	26.4	27.0	23.1	21.8	22.3	20.3	19.2	19.7
19	21.9	21.1	21.6	27.5	26.6	27.1	23.5	22.5	22.9	20.8	19.7	20.2
20	23.1	22.0	22.6	27.3	26.1	26.8	23.5	22.7	23.0	20.9	20.2	20.6
21	23.3	22.7	23.0	27.1	26.1	26.6	22.8	22.1	22.5	20.8	19.9	20.2
22	23.0	21.5	22.1	26.7	25.8	26.2	22.2	21.4	21.8	19.8	18.7	19.1
23	21.7	21.4	21.6	25.8	24.5	25.1	21.3	20.3	20.9	18.7	17.8	18.1
24	21.7	21.2	21.5	24.5	23.8	24.2	20.9	20.0	20.4	17.7	17.1	17.3
25	22.0	21.1	21.6	24.3	23.5	23.9	20.4	19.7	20.0	17.3	16.7	17.0
26	22.0	21.1	21.7	25.5	23.6	24.4	21.0	19.6	20.1	16.9	16.2	16.5
27	22.0	21.1	21.6	26.1	24.4	25.1	20.3	19.7	19.9	16.4	15.8	16.1
28	21.9	20.6	21.0	26.1	24.8	25.3	19.9	19.2	19.4	16.4	15.7	16.1
29	20.9	20.1	20.4	25.5	24.7	25.1	19.1	18.5	18.8	16.3	15.8	16.0
30	20.9	20.3	20.6	25.5	24.2	24.7	19.2	18.3	18.7	15.9	15.2	15.5
31	---	---	---	24.3	23.8	24.1	19.8	18.4	19.0	---	---	---
MONTH	**23.3**	**13.6**	**19.2**	**27.8**	**20.1**	**24.5**	**25.4**	**18.3**	**22.3**	**21.2**	**15.2**	**19.0**
PERIOD	**27.8**	**13.6**	**21.1**									



ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn I)

DISSOLVED OXYGEN, MILLIGRAMS PER LITER, 2006

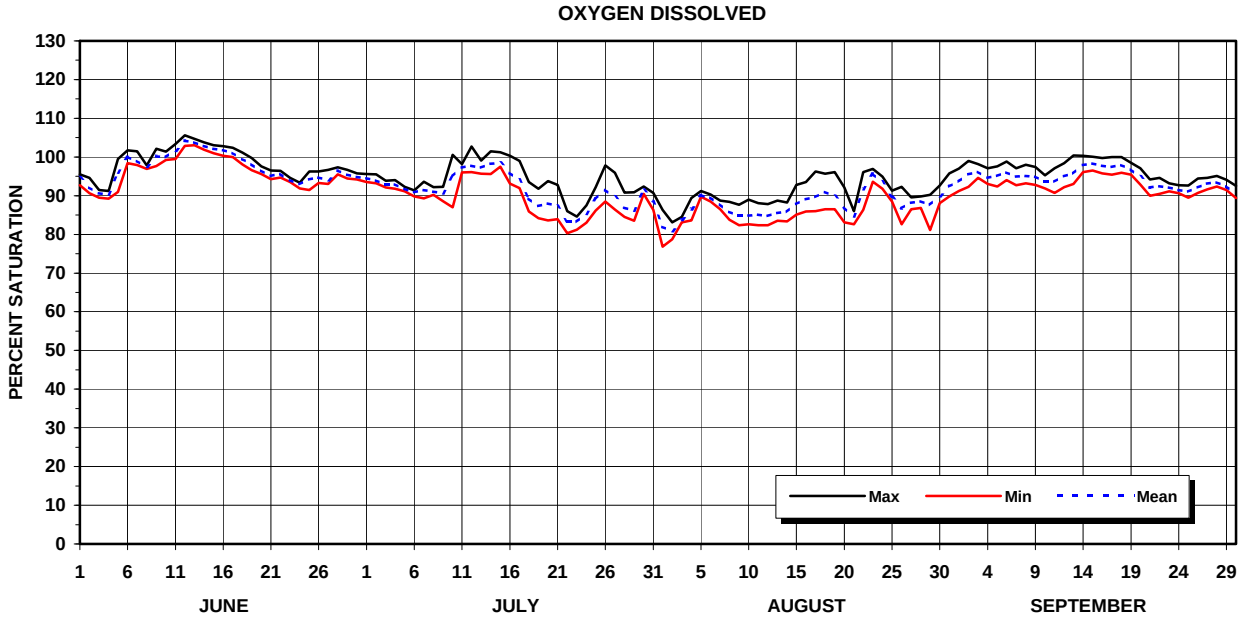
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.0	8.8	8.9	8.6	8.5	8.5	7.3	6.5	6.9	8.9	8.5	8.7
2	8.7	8.4	8.5	8.5	8.3	8.4	6.9	6.6	6.7	9.0	8.6	8.8
3	8.4	8.3	8.3	8.3	8.1	8.2	7.1	6.9	7.0	9.1	8.7	8.9
4	8.9	8.4	8.6	8.3	8.1	8.1	7.4	7.1	7.3	9.0	8.7	8.8
5	9.9	9.0	9.5	8.1	7.9	8.0	7.6	7.5	7.5	9.0	8.6	8.8
6	10.1	9.9	10.0	7.9	7.8	7.9	7.6	7.5	7.6	9.0	8.7	8.8
7	10.0	9.6	9.7	8.1	7.8	8.0	7.6	7.4	7.5	8.8	8.5	8.7
8	9.8	9.6	9.7	7.9	7.8	7.9	7.5	7.2	7.3	8.8	8.6	8.7
9	10.4	9.8	10.2	7.9	7.7	7.8	7.4	7.1	7.2	8.7	8.4	8.6
10	10.4	10.2	10.3	8.3	7.9	8.1	7.5	7.1	7.3	8.5	8.3	8.4
11	10.7	10.2	10.5	8.2	8.0	8.1	7.4	7.0	7.2	8.8	8.3	8.5
12	10.7	10.5	10.6	8.4	8.0	8.1	7.6	7.2	7.4	9.0	8.5	8.8
13	10.4	10.1	10.3	8.2	8.0	8.1	7.8	7.5	7.6	9.3	8.7	9.0
14	10.1	10.0	10.0	8.2	7.9	8.1	7.8	7.5	7.7	9.4	9.1	9.2
15	10.0	9.8	9.8	8.2	7.9	8.0	8.1	7.5	7.8	9.4	9.1	9.2
16	9.8	9.6	9.7	8.0	7.6	7.8	8.1	7.6	7.8	9.2	9.0	9.1
17	9.6	9.2	9.4	7.8	7.4	7.5	8.3	7.6	7.9	9.1	8.9	9.0
18	9.2	8.9	9.0	7.3	6.9	7.1	8.2	7.6	7.9	9.1	8.9	9.0
19	8.9	8.5	8.7	7.3	6.8	7.0	8.2	7.5	7.7	9.0	8.7	8.8
20	8.5	8.3	8.4	7.4	6.7	7.0	7.8	7.1	7.5	8.7	8.4	8.6
21	8.3	8.1	8.2	7.4	6.7	7.0	7.5	7.2	7.3	8.5	8.2	8.4
22	8.4	8.2	8.4	6.9	6.5	6.7	8.5	7.5	8.1	8.8	8.4	8.6
23	8.3	8.2	8.3	7.0	6.7	6.9	8.6	8.4	8.6	8.9	8.6	8.7
24	8.3	8.1	8.2	7.3	7.0	7.2	8.5	8.3	8.5	8.9	8.7	8.8
25	8.4	8.1	8.3	7.7	7.3	7.5	8.2	8.1	8.2	8.9	8.7	8.8
26	8.5	8.3	8.3	8.0	7.5	7.6	8.2	7.5	7.9	9.2	8.8	9.0
27	8.5	8.2	8.3	7.8	7.2	7.4	8.2	7.9	8.0	9.3	9.1	9.2
28	8.7	8.5	8.6	7.3	7.0	7.1	8.3	8.0	8.2	9.4	9.1	9.2
29	8.7	8.6	8.6	7.4	6.9	7.1	8.4	7.6	8.2	9.3	9.1	9.1
30	8.6	8.5	8.5	7.7	7.4	7.6	8.6	8.3	8.4	9.2	9.0	9.1
31	---	---	---	7.6	7.3	7.4	8.7	8.4	8.6	---	---	---
MONTH	**10.7**	**8.1**	**8.9**	**8.6**	**6.5**	**7.8**	**8.7**	**6.5**	**7.6**	**9.4**	**8.2**	**8.9**
PERIOD	**10.7**	**6.5**	**8.3**									



ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn I)

OXYGEN DISSOLVED, PERCENT SATURATION, 2006

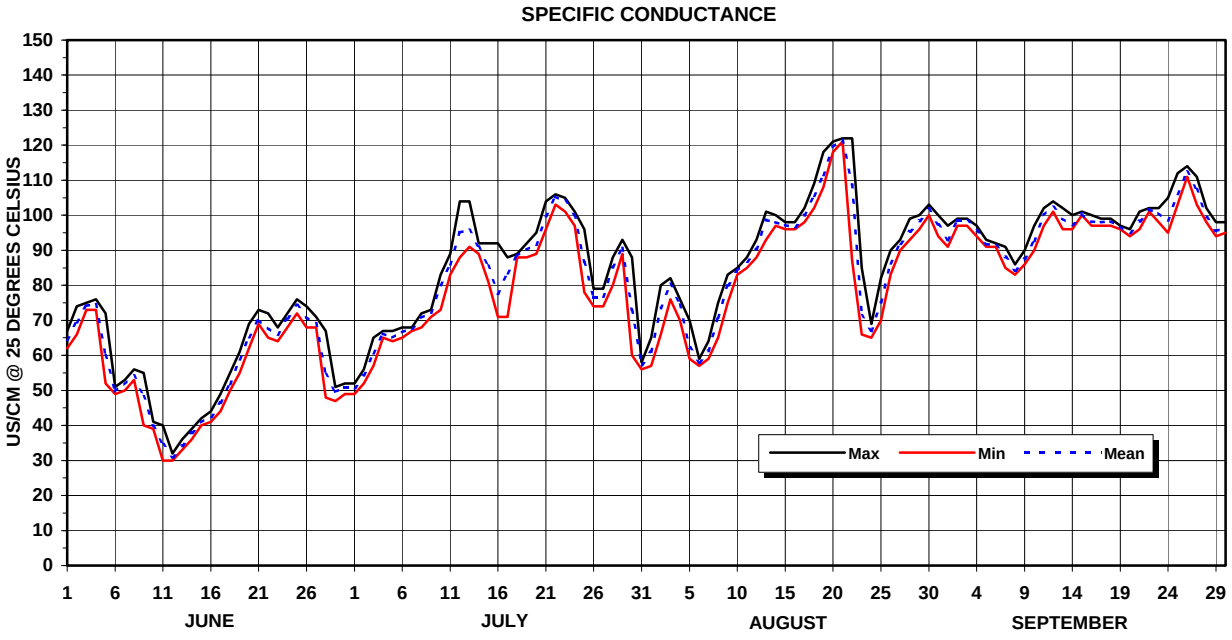
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	96	93	95	96	94	94	86	77	82	97	91	94
2	95	91	92	96	93	94	83	79	81	99	92	96
3	92	90	91	94	92	93	85	83	84	98	95	96
4	91	89	90	94	92	93	89	84	87	97	93	95
5	100	91	96	92	91	92	91	90	90	98	92	95
6	102	98	100	91	90	91	90	89	90	99	94	96
7	102	98	99	94	89	91	89	87	88	97	93	95
8	98	97	97	92	90	91	88	84	86	98	93	95
9	102	98	100	92	89	91	88	82	85	97	93	95
10	101	99	100	101	87	95	89	83	85	95	92	94
11	103	100	102	98	96	97	88	82	85	97	91	94
12	106	103	104	103	96	98	88	82	85	98	92	95
13	105	103	104	99	96	97	89	84	86	100	93	96
14	104	102	103	102	96	98	88	83	86	100	96	98
15	103	101	102	101	98	99	93	85	88	100	97	98
16	103	100	102	100	93	96	94	86	89	100	96	98
17	102	100	101	99	92	94	96	86	90	100	95	97
18	101	98	99	94	86	89	96	87	91	100	96	98
19	100	97	98	92	84	87	96	87	90	99	95	97
20	98	96	97	94	84	88	92	83	87	97	93	95
21	97	94	95	93	84	87	86	83	85	94	90	92
22	96	95	96	86	80	83	96	86	92	95	91	92
23	95	94	94	85	81	83	97	94	96	93	91	92
24	93	92	93	88	83	85	95	92	94	93	91	91
25	96	92	94	92	86	89	91	89	90	93	90	91
26	96	93	95	98	89	92	92	83	87	94	91	92
27	97	93	94	96	86	90	90	87	88	95	92	93
28	97	96	96	91	85	87	90	87	89	95	92	93
29	97	94	95	91	84	86	90	81	88	94	92	92
30	96	94	95	92	91	91	93	88	90	93	89	91
31	---	---	---	91	86	89	96	90	92	---	---	---
MONTH	**106**	**89**	**97**	**103**	**80**	**92**	**97**	**77**	**88**	**100**	**89**	**95**
PERIOD	**106**	**77**	**93**									



ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn I)

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CELSIUS, 2006

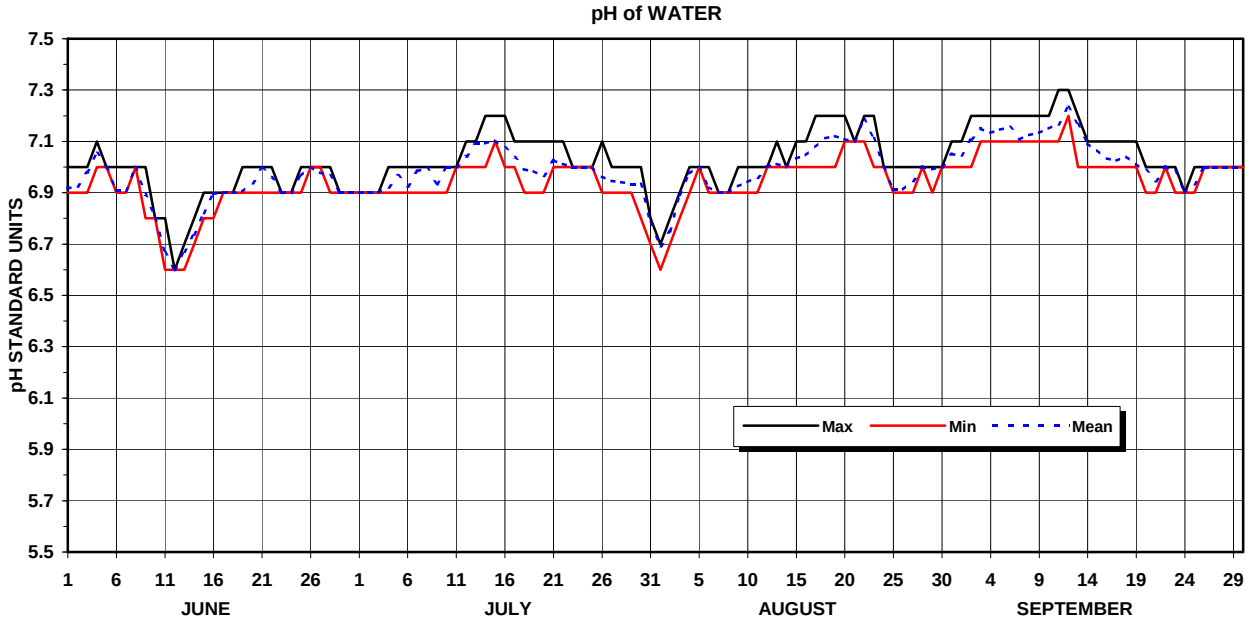
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	67	62	64	52	49	51	65	57	61	97	91	93
2	74	66	70	56	52	54	80	66	73	99	97	98
3	75	73	74	65	57	61	82	76	80	99	97	98
4	76	73	75	67	65	66	76	70	74	97	94	96
5	72	52	60	67	64	65	70	59	62	93	91	92
6	51	49	50	68	65	67	59	57	58	92	91	91
7	53	50	52	68	67	68	64	59	61	91	85	88
8	56	53	54	72	68	71	75	65	71	86	83	84
9	55	40	48	73	71	72	83	75	80	90	86	88
10	41	39	40	83	73	80	85	83	84	97	90	93
11	40	30	35	89	83	86	88	85	87	102	97	100
12	32	30	31	104	88	95	93	88	90	104	101	102
13	36	33	34	104	91	96	101	93	99	102	96	99
14	39	36	38	92	89	91	100	97	98	100	96	97
15	42	40	41	92	81	86	98	96	97	101	100	100
16	44	41	42	92	71	78	98	96	97	100	97	98
17	49	44	47	88	71	84	102	98	100	99	97	98
18	55	50	52	89	88	88	109	102	106	99	97	98
19	61	55	59	92	88	90	118	108	111	97	96	97
20	69	62	65	95	89	92	121	118	120	96	94	95
21	73	69	70	104	96	100	122	121	121	101	96	98
22	72	65	68	106	103	105	122	87	109	102	101	102
23	68	64	66	105	101	104	85	66	71	102	98	101
24	72	68	71	101	97	100	69	65	67	105	95	99
25	76	72	74	96	78	87	82	70	75	112	103	106
26	74	68	71	79	74	77	90	83	86	114	111	112
27	71	68	69	79	74	77	93	90	92	111	103	107
28	67	48	55	88	80	85	99	93	95	102	98	99
29	51	47	50	93	89	91	100	96	98	98	94	96
30	52	49	51	88	60	73	103	100	102	98	95	96
31	---	---	---	58	56	57	100	94	97	---	---	---
MONTH	**76**	**30**	**55**	**106**	**49**	**83**	**122**	**57**	**89**	**114**	**83**	**97**
PERIOD	**122**	**30**	**85**									



ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn I)

pH, WATER, STANDARD UNITS, 2006

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.0	6.9	6.9	6.9	6.9	6.9	6.7	6.6	6.7	7.1	7.0	7.0
2	7.0	6.9	6.9	6.9	6.9	6.9	6.8	6.7	6.8	7.2	7.0	7.1
3	7.0	6.9	7.0	6.9	6.9	6.9	6.9	6.8	6.9	7.2	7.1	7.2
4	7.1	7.0	7.1	7.0	6.9	6.9	7.0	6.9	7.0	7.2	7.1	7.1
5	7.0	7.0	7.0	7.0	6.9	7.0	7.0	7.0	7.0	7.2	7.1	7.1
6	7.0	6.9	6.9	7.0	6.9	6.9	7.0	6.9	6.9	7.2	7.1	7.2
7	7.0	6.9	6.9	7.0	6.9	7.0	6.9	6.9	6.9	7.2	7.1	7.1
8	7.0	7.0	7.0	7.0	6.9	7.0	6.9	6.9	6.9	7.2	7.1	7.1
9	7.0	6.8	6.9	7.0	6.9	6.9	7.0	6.9	6.9	7.2	7.1	7.1
10	6.8	6.8	6.8	7.0	6.9	7.0	7.0	6.9	6.9	7.2	7.1	7.2
11	6.8	6.6	6.7	7.0	7.0	7.0	7.0	6.9	7.0	7.3	7.1	7.2
12	6.6	6.6	6.6	7.1	7.0	7.0	7.0	7.0	7.0	7.3	7.2	7.2
13	6.7	6.6	6.7	7.1	7.0	7.1	7.1	7.0	7.0	7.2	7.0	7.2
14	6.8	6.7	6.7	7.2	7.0	7.1	7.0	7.0	7.0	7.1	7.0	7.1
15	6.9	6.8	6.8	7.2	7.1	7.1	7.1	7.0	7.0	7.1	7.0	7.1
16	6.9	6.8	6.9	7.2	7.0	7.1	7.1	7.0	7.0	7.1	7.0	7.0
17	6.9	6.9	6.9	7.1	7.0	7.0	7.2	7.0	7.1	7.1	7.0	7.0
18	6.9	6.9	6.9	7.1	6.9	7.0	7.2	7.0	7.1	7.1	7.0	7.0
19	7.0	6.9	6.9	7.1	6.9	7.0	7.2	7.0	7.1	7.1	7.0	7.0
20	7.0	6.9	6.9	7.1	6.9	7.0	7.2	7.1	7.1	7.0	6.9	7.0
21	7.0	6.9	7.0	7.1	7.0	7.0	7.1	7.1	7.1	7.0	6.9	6.9
22	7.0	6.9	7.0	7.1	7.0	7.0	7.2	7.1	7.2	7.0	7.0	7.0
23	6.9	6.9	6.9	7.0	7.0	7.0	7.2	7.0	7.1	7.0	6.9	7.0
24	6.9	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.0	6.9	6.9	6.9
25	7.0	6.9	7.0	7.0	7.0	7.0	7.0	6.9	6.9	7.0	6.9	6.9
26	7.0	7.0	7.0	7.1	6.9	7.0	7.0	6.9	6.9	7.0	7.0	7.0
27	7.0	7.0	7.0	7.0	6.9	6.9	7.0	6.9	6.9	7.0	7.0	7.0
28	7.0	6.9	7.0	7.0	6.9	6.9	7.0	7.0	7.0	7.0	7.0	7.0
29	6.9	6.9	6.9	7.0	6.9	6.9	7.0	6.9	7.0	7.0	7.0	7.0
30	6.9	6.9	6.9	7.0	6.8	6.9	7.0	7.0	7.0	7.0	7.0	7.0
31	---	---	---	6.8	6.7	6.8	7.1	7.0	7.1	---	---	---
MONTH	**7.1**	**6.6**	**6.9**	**7.2**	**6.7**	**7.0**	**7.2**	**6.6**	**7.0**	**7.3**	**6.9**	**7.0**
PERIOD	**7.3**	**6.6**	**7.0**									



ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn II)

LOCATION.-- Lat. 44° 15' 22", Long 70° 10' 50", Androscoggin County, on right downstream end of Turner Bridge, 2.7 miles below mouth of Nezinscot River, 3.1 miles above the oxygen injection system in Greene and 8.0 miles above Gulf Island Dam.

DRAINAGE AREA.-- 2,840 mi ².

PERIOD OF RECORD.-- Seasonal June to September.

PERIOD OF DAILY RECORD.-- June 2004 to current Year.
Water Temperature: June 2004 to current Year.
Dissolved Oxygen: June 2004 to current Year.
Oxygen Dissolved: June 2004 to current Year.

EXTREMES RECORDED FOR PERIOD OF DAILY RECORD.--
Water Temperature: Maximum, 27.9 °C, July 22, 2005; minimum, 13.6 °C, June 12, 2006.
Dissolved Oxygen: Maximum, 10.6 mg/L, June 19, 20, 2005; minimum, 5.7 mg/L, July 7, 2004.
Oxygen Dissolved: Maximum, 110 % sat. Aug. 28, 2004; minimum, 66 % sat. July 7, 2004.

INSTRUMENTATION.-- Monitoring point located 75-ft streamward from right bank and 5.0-ft above the river bed. Prior to July 29, 2004, monitoring point was located 1.5-ft above the river bed. Electronic data-logger, data retrieved on-site.

REMARKS.--Turn II monitor located at same monitoring point as Turn I to validate data recorded at Turn I.

CURRENT YEAR, 2006

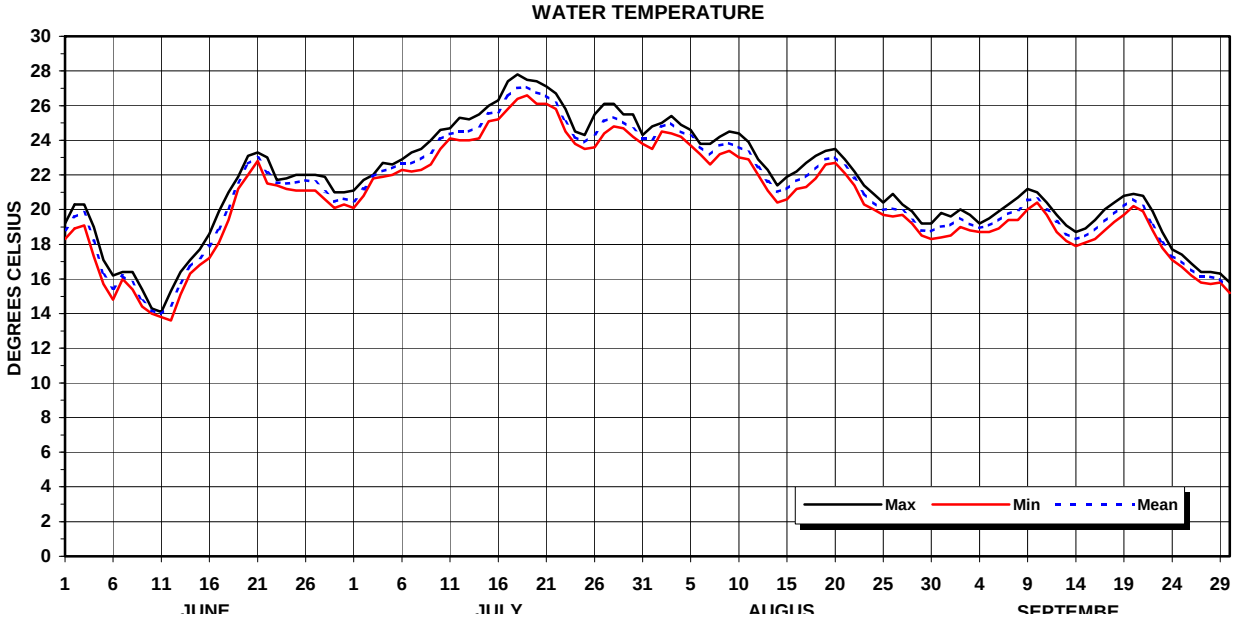
EXTREMES RECORDED.--
Water Temperature: Maximum, 27.8 °C, July 18; minimum, 13.6 °C, June 12.
Dissolved Oxygen: Maximum, 10.5 mg/L, June 11, 12; minimum, 6.5 mg/L, July 22, Aug. 1
Oxygen Dissolved: Maximum, 104 % sat. June 12; minimum, 77 % sat. Aug. 1.

NOTE.—A new water temperature minimum value was recorded for the period of daily record.

ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn 11)

WATER TEMPERATURE, DEGREES CELSIUS, 2006

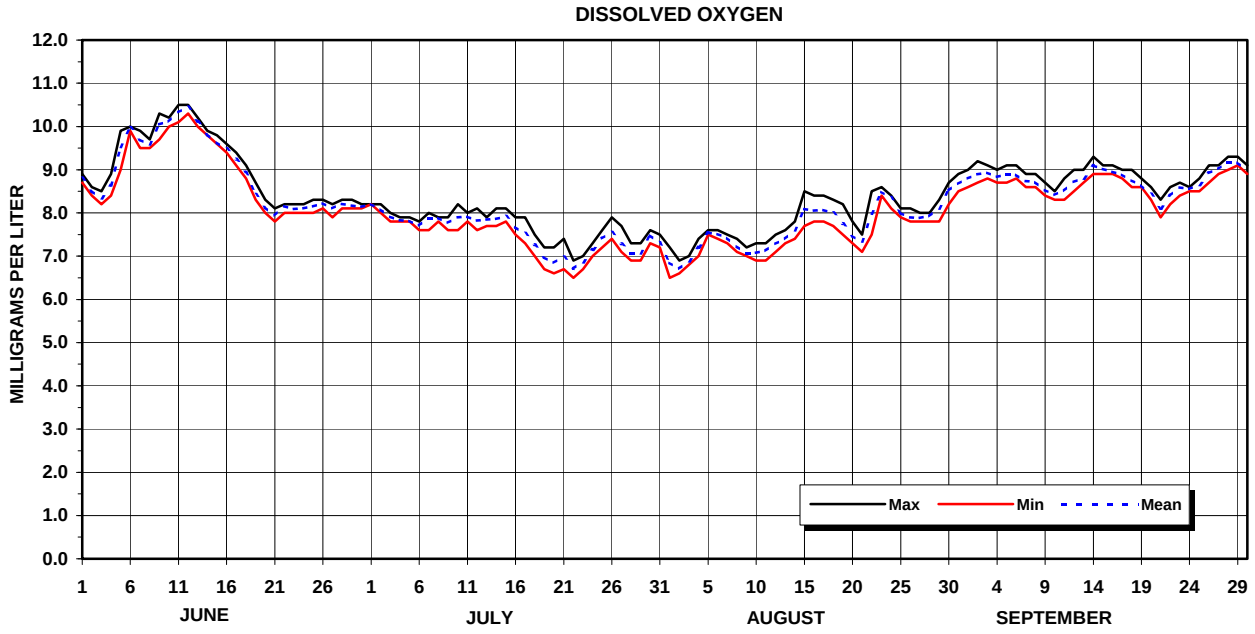
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.2	18.3	18.8	21.1	20.1	20.5	24.8	23.5	24.1	19.6	18.5	19.1
2	20.3	18.9	19.6	21.7	20.8	21.2	25.0	24.5	24.8	20.0	19.0	19.5
3	20.3	19.1	19.8	22.0	21.8	21.9	25.4	24.4	25.0	19.7	18.8	19.2
4	19.0	17.3	18.2	22.7	21.9	22.2	24.9	24.2	24.5	19.2	18.7	19.0
5	17.1	15.7	16.2	22.6	22.0	22.4	24.6	23.7	24.2	19.5	18.7	19.1
6	16.2	14.8	15.4	22.9	22.3	22.7	23.8	23.2	23.6	19.9	18.9	19.4
7	16.4	16.0	16.2	23.3	22.2	22.7	23.8	22.6	23.2	20.3	19.4	19.8
8	16.4	15.4	15.8	23.5	22.3	22.9	24.2	23.2	23.7	20.7	19.4	20.0
9	15.4	14.4	14.7	24.0	22.6	23.3	24.5	23.4	23.8	21.2	20.0	20.5
10	14.3	14.0	14.2	24.6	23.5	24.1	24.4	23.0	23.6	21.0	20.4	20.6
11	14.1	13.8	14.0	24.7	24.1	24.4	23.9	22.9	23.3	20.4	19.7	20.0
12	15.3	13.6	14.5	25.3	24.0	24.5	22.9	22.0	22.4	19.7	18.7	19.3
13	16.4	15.1	15.8	25.2	24.0	24.5	22.3	21.1	21.6	19.1	18.2	18.6
14	17.1	16.3	16.7	25.5	24.1	24.8	21.4	20.4	21.0	18.7	17.9	18.3
15	17.7	16.8	17.2	26.0	25.1	25.5	21.9	20.6	21.2	18.9	18.1	18.5
16	18.6	17.2	17.9	26.3	25.2	25.6	22.2	21.2	21.7	19.4	18.3	18.8
17	19.9	18.1	18.9	27.4	25.8	26.6	22.7	21.3	21.9	20.0	18.8	19.3
18	21.0	19.4	20.1	27.8	26.4	27.0	23.1	21.8	22.3	20.4	19.3	19.8
19	21.9	21.2	21.6	27.5	26.6	27.1	23.4	22.6	22.9	20.8	19.7	20.2
20	23.1	22.0	22.6	27.4	26.1	26.8	23.5	22.7	23.0	20.9	20.2	20.6
21	23.3	22.8	23.0	27.1	26.1	26.6	22.9	22.1	22.5	20.8	19.9	20.2
22	23.0	21.5	22.1	26.7	25.8	26.2	22.2	21.4	21.8	19.9	18.8	19.1
23	21.7	21.4	21.6	25.8	24.5	25.1	21.4	20.3	20.9	18.7	17.8	18.1
24	21.8	21.2	21.5	24.5	23.8	24.2	20.9	20.0	20.4	17.7	17.1	17.3
25	22.0	21.1	21.6	24.3	23.5	23.9	20.4	19.7	20.0	17.4	16.7	17.0
26	22.0	21.1	21.7	25.5	23.6	24.4	20.9	19.6	20.1	16.9	16.2	16.5
27	22.0	21.1	21.6	26.1	24.4	25.1	20.3	19.7	19.9	16.4	15.8	16.1
28	21.9	20.6	21.0	26.1	24.8	25.3	19.9	19.2	19.4	16.4	15.7	16.1
29	21.0	20.1	20.5	25.5	24.7	25.1	19.2	18.5	18.8	16.3	15.8	16.0
30	21.0	20.3	20.6	25.5	24.2	24.7	19.2	18.3	18.7	15.8	15.2	15.5
31	---	---	---	24.3	23.8	24.1	19.8	18.4	19.0	---	---	---
MONTH	**23.3**	**13.6**	**19.2**	**27.8**	**20.1**	**24.5**	**25.4**	**18.3**	**22.3**	**21.2**	**15.2**	**19.0**
PERIOD	**27.8**	**13.6**	**21.1**									



ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn 11)

DISSOLVED OXYGEN, MILLIGRAMS PER LITER, 2006

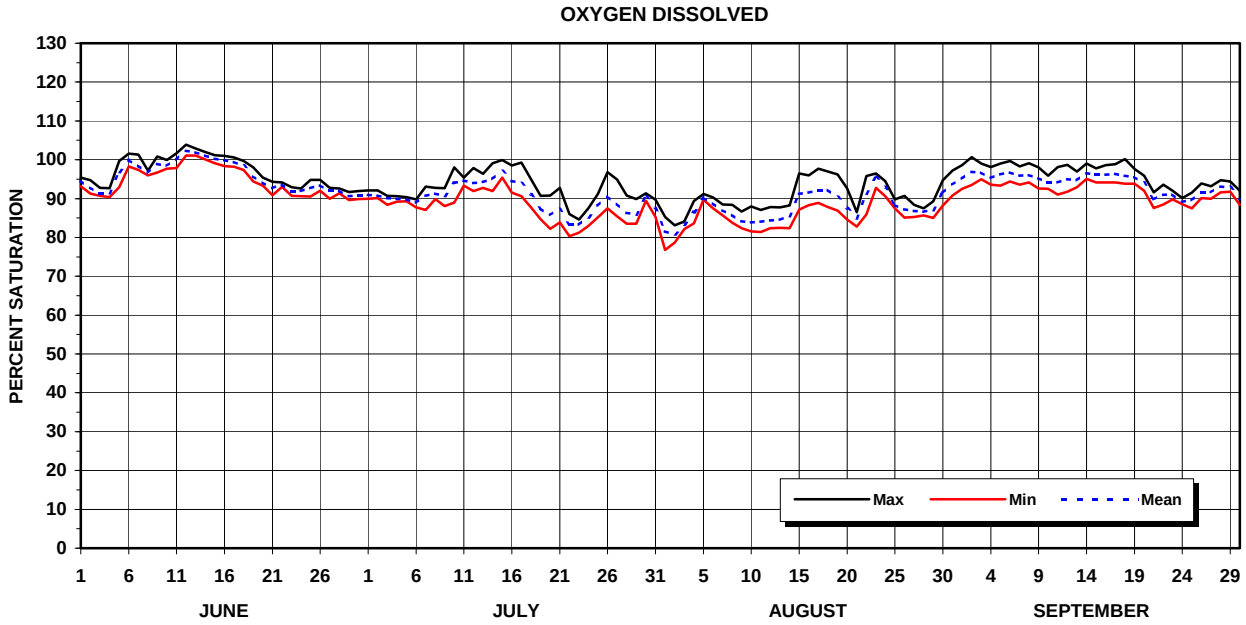
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.9	8.7	8.8	8.2	8.2	8.2	7.2	6.5	6.9	9.0	8.6	8.8
2	8.6	8.4	8.5	8.2	8.0	8.1	6.9	6.6	6.7	9.2	8.7	8.9
3	8.5	8.2	8.3	8.0	7.8	7.9	7.0	6.8	6.9	9.1	8.8	8.9
4	8.9	8.4	8.6	7.9	7.8	7.8	7.4	7.0	7.2	9.0	8.7	8.8
5	9.9	9.0	9.5	7.9	7.8	7.8	7.6	7.5	7.5	9.1	8.7	8.9
6	10.0	9.9	10.0	7.8	7.6	7.7	7.6	7.4	7.5	9.1	8.8	8.9
7	9.9	9.5	9.7	8.0	7.6	7.9	7.5	7.3	7.4	8.9	8.6	8.7
8	9.7	9.5	9.6	7.9	7.8	7.9	7.4	7.1	7.2	8.9	8.6	8.7
9	10.3	9.7	10.0	7.9	7.6	7.8	7.2	7.0	7.1	8.7	8.4	8.5
10	10.2	10.0	10.1	8.2	7.6	7.9	7.3	6.9	7.1	8.5	8.3	8.4
11	10.5	10.1	10.3	8.0	7.8	7.9	7.3	6.9	7.1	8.8	8.3	8.5
12	10.5	10.3	10.5	8.1	7.6	7.8	7.5	7.1	7.3	9.0	8.5	8.7
13	10.2	10.0	10.1	7.9	7.7	7.8	7.6	7.3	7.4	9.0	8.7	8.8
14	9.9	9.8	9.8	8.1	7.7	7.9	7.8	7.4	7.6	9.3	8.9	9.1
15	9.8	9.6	9.6	8.1	7.8	7.9	8.5	7.7	8.1	9.1	8.9	9.0
16	9.6	9.4	9.5	7.9	7.5	7.7	8.4	7.8	8.1	9.1	8.9	9.0
17	9.4	9.1	9.2	7.9	7.3	7.5	8.4	7.8	8.1	9.0	8.8	8.9
18	9.1	8.8	9.0	7.5	7.0	7.3	8.3	7.7	8.0	9.0	8.6	8.8
19	8.7	8.3	8.4	7.2	6.7	7.0	8.2	7.5	7.7	8.8	8.6	8.6
20	8.3	8.0	8.1	7.2	6.6	6.9	7.8	7.3	7.5	8.6	8.3	8.4
21	8.1	7.8	7.9	7.4	6.7	7.0	7.5	7.1	7.3	8.3	7.9	8.1
22	8.2	8.0	8.2	6.9	6.5	6.7	8.5	7.5	8.0	8.6	8.2	8.4
23	8.2	8.0	8.1	7.0	6.7	6.9	8.6	8.4	8.5	8.7	8.4	8.6
24	8.2	8.0	8.1	7.3	7.0	7.2	8.4	8.1	8.4	8.6	8.5	8.6
25	8.3	8.0	8.2	7.6	7.2	7.4	8.1	7.9	8.0	8.8	8.5	8.7
26	8.3	8.1	8.2	7.9	7.4	7.5	8.1	7.8	7.9	9.1	8.7	8.9
27	8.2	7.9	8.1	7.7	7.1	7.3	8.0	7.8	7.9	9.1	8.9	9.0
28	8.3	8.1	8.2	7.3	6.9	7.1	8.0	7.8	7.9	9.3	9.0	9.2
29	8.3	8.1	8.2	7.3	6.9	7.1	8.3	7.8	8.1	9.3	9.1	9.2
30	8.2	8.1	8.1	7.6	7.3	7.5	8.7	8.2	8.5	9.1	8.9	9.0
31	---	---	---	7.5	7.2	7.3	8.9	8.5	8.7	---	---	---
MONTH	**10.5**	**7.8**	**8.8**	**8.2**	**6.5**	**7.6**	**8.9**	**6.5**	**7.6**	**9.3**	**7.9**	**8.8**
PERIOD	**10.5**	**6.5**	**8.2**									



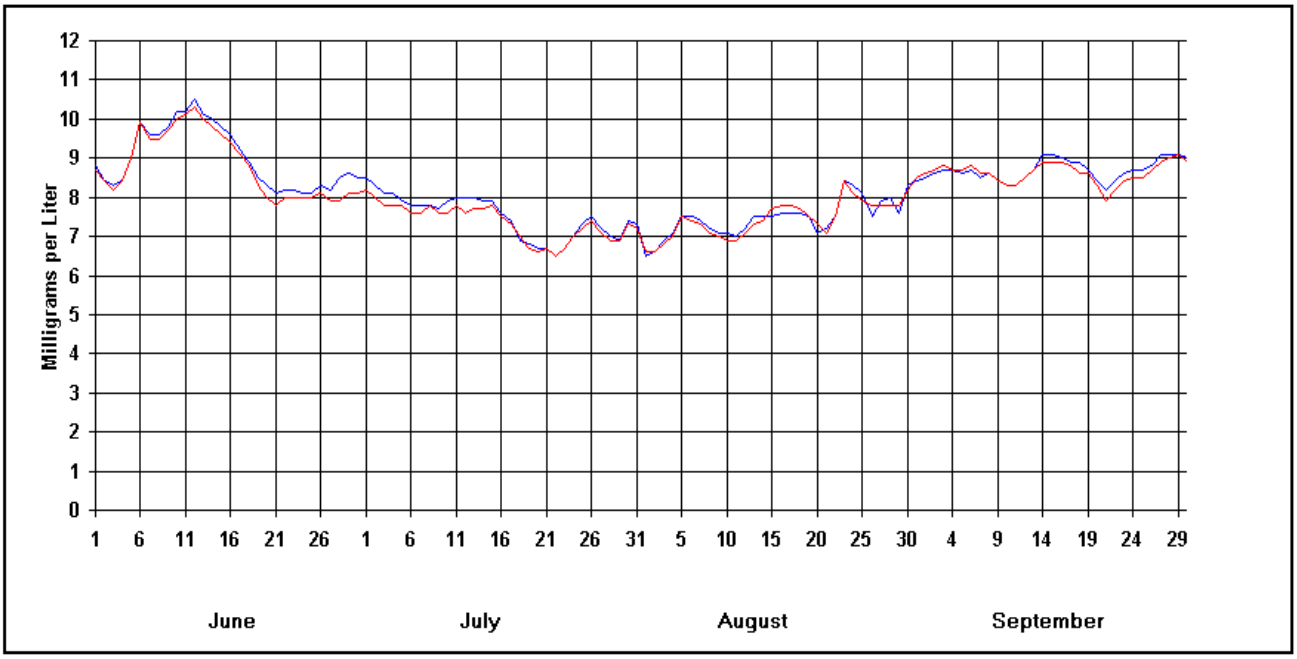
ANDROSCOGGIN RIVER AT TURNER BRIDGE NEAR TURNER, ME
(Turn 11)

OXYGEN DISSOLVED, PERCENT SATURATION, 2006

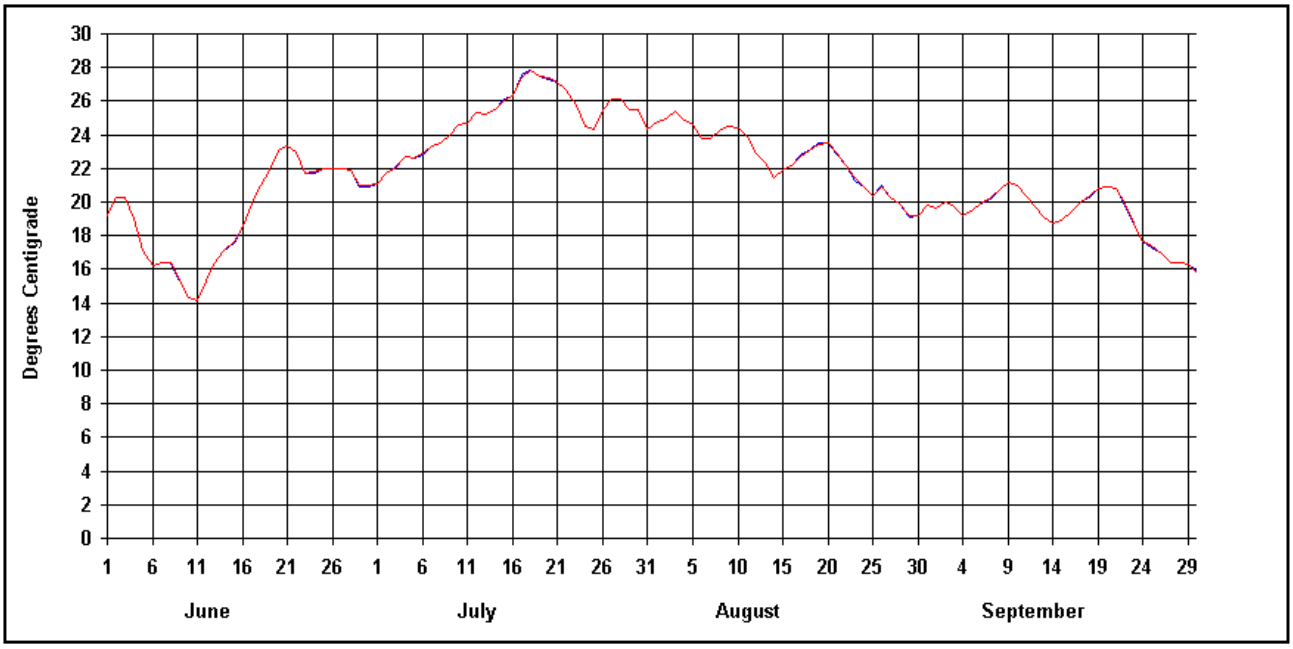
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	95	93	95	92	90	91	85	77	82	99	93	95
2	95	91	93	92	90	91	83	79	81	101	94	97
3	93	91	91	91	88	90	84	82	83	99	95	97
4	93	90	91	91	89	90	89	84	87	98	94	95
5	100	93	97	90	89	90	91	90	90	99	93	96
6	102	98	100	90	88	89	90	88	89	100	94	97
7	101	97	99	93	87	91	89	86	87	98	94	96
8	97	96	97	93	90	91	88	84	86	99	94	96
9	101	97	99	93	88	91	87	82	84	98	93	95
10	100	98	98	98	89	94	88	82	84	96	93	94
11	102	98	100	95	93	95	87	81	84	98	91	94
12	104	101	102	98	92	94	88	82	84	99	92	95
13	103	101	102	96	93	94	88	83	85	97	93	95
14	102	100	101	99	92	95	88	82	85	99	95	97
15	101	99	100	100	95	97	97	87	91	98	94	96
16	101	98	100	99	92	95	96	88	92	99	94	96
17	101	98	99	99	91	94	98	89	92	99	94	96
18	100	97	98	95	88	91	97	88	92	100	94	96
19	98	94	96	91	85	88	96	87	90	98	94	96
20	95	93	94	91	82	86	93	85	88	96	92	94
21	94	91	93	93	84	87	87	83	85	92	88	90
22	94	93	94	86	80	83	96	86	91	94	89	91
23	93	91	92	85	81	83	97	93	95	92	90	91
24	93	91	92	88	83	85	95	91	93	90	89	89
25	95	91	93	91	85	88	90	88	88	92	88	90
26	95	92	93	97	88	91	91	85	87	94	90	92
27	93	90	92	95	85	89	88	85	87	93	90	92
28	93	91	92	91	84	86	88	86	87	95	92	93
29	92	90	91	90	84	86	89	85	87	94	92	93
30	92	90	91	91	90	90	95	88	92	92	88	90
31	---	---	---	90	85	88	97	91	94	---	---	---
MONTH	**104**	**90**	**95**	**100**	**80**	**91**	**98**	**77**	**88**	**101**	**88**	**94**
PERIOD	**104**	**77**	**92**									



Turn 1 Minimum Dissolved Oxygen
VS
Turn 11 Minimum Dissolved Oxygen



Turn 1 Maximum Water Temperature
VS
Turn 11 Maximum Water Temperature



GULF ISLAND POND DEEP HOLE 0.6 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

LOCATION.-- Lat. 44° 09' 38", Long 70° 12' 16", Androscoggin County, 500-ft from left shore, 0.6 miles above Gulf Island Dam, 7.4 miles downstream from Turner Bridge and 4.2 miles below the oxygen-injection system in Greene.

DRAINAGE AREA.-- 2,840 mi ².

PERIOD OF RECORD.-- Seasonal June to September**.**

PERIOD OF DAILY RECORD.--
Water Temperature: July 1998 to current year.
Dissolved Oxygen:. July 1998 to current year.
Oxygen Dissolved: July 1998 to current year.
Depth: July 1998 to current year.

EXTREMES RECORDED FOR PERIOD OF DAILY RECORD.--
Water Temperature: Maximum, 25.4 °C, July 9, 1999; minimum, 11.6 °C, June 1, 5, 2003.
Dissolved Oxygen: Maximum, 11.9 mg/L, Sept. 19, 1999; minimum, 0.0 mg/L, on many days in 1999-2002, 2004, 2005.
Oxygen Dissolved: Maximum, 115 % sat. Sept. 18, 19, 1999; minimum, 0 % sat. on many days in 1999-2002, 2004, 2005.
Depth: Maximum, 81.2-ft, July 26, 27, Aug. 1, 1998; minimum, 48.4-ft, July 1, 1999.

INSTRUMENTATION.-- Monitor anchored 20-25-ft off bottom of pond. Monitoring point dependent on pond elevation. Electronic data-logger, data retrieved on-site.

REMARKS.-- Monitor not operated during period October to May. Other interruptions in the record were due to malfunctions of the monitor.

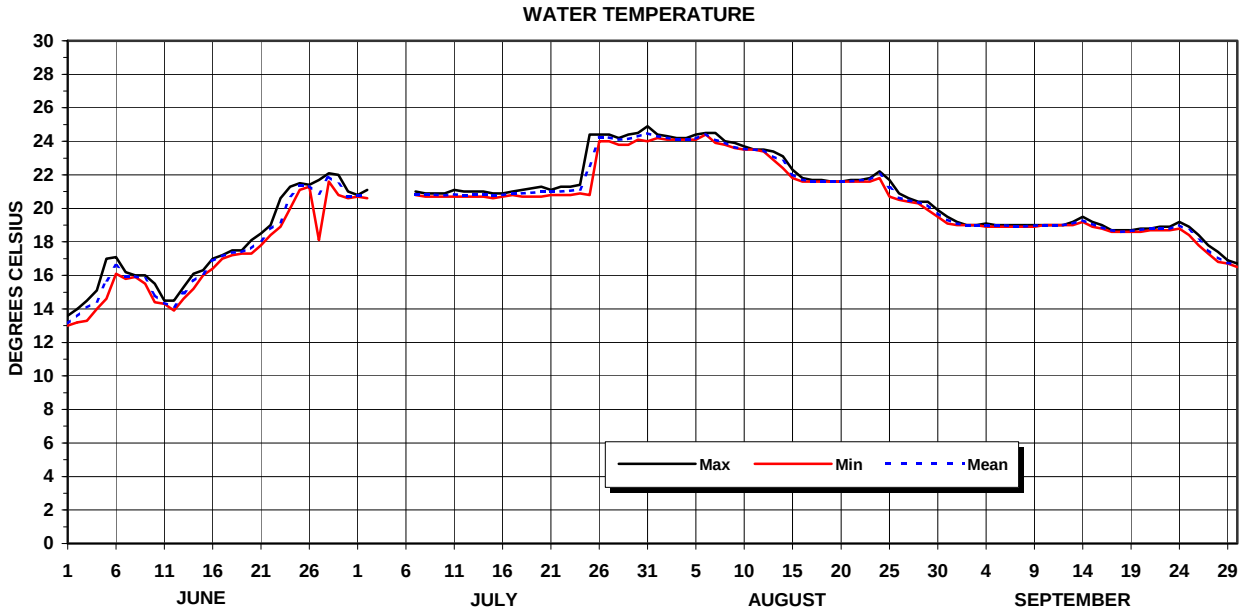
CURRENT YEAR, 2006

EXTREMES RECORDED.--
Water Temperature: Maximum, 24.9°C, July 31; minimum, 13.0 °C, June 1.
Dissolved Oxygen: Maximum, 10.5 mg/L, June 12, 13; minimum, 0.0 mg/L, July 15-25.
Oxygen Dissolved: Maximum, 103 % sat. June 12, 13; minimum, 0 % sat. on July 16-25.
Depth: Maximum, 66.3-ft, July 29, 30; minimum, 57.3-ft, June 2.

GULF ISLAND POND DEEPHOLE 0.6 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

WATER TEMPERATURE, DEGREES CELSIUS, 2006

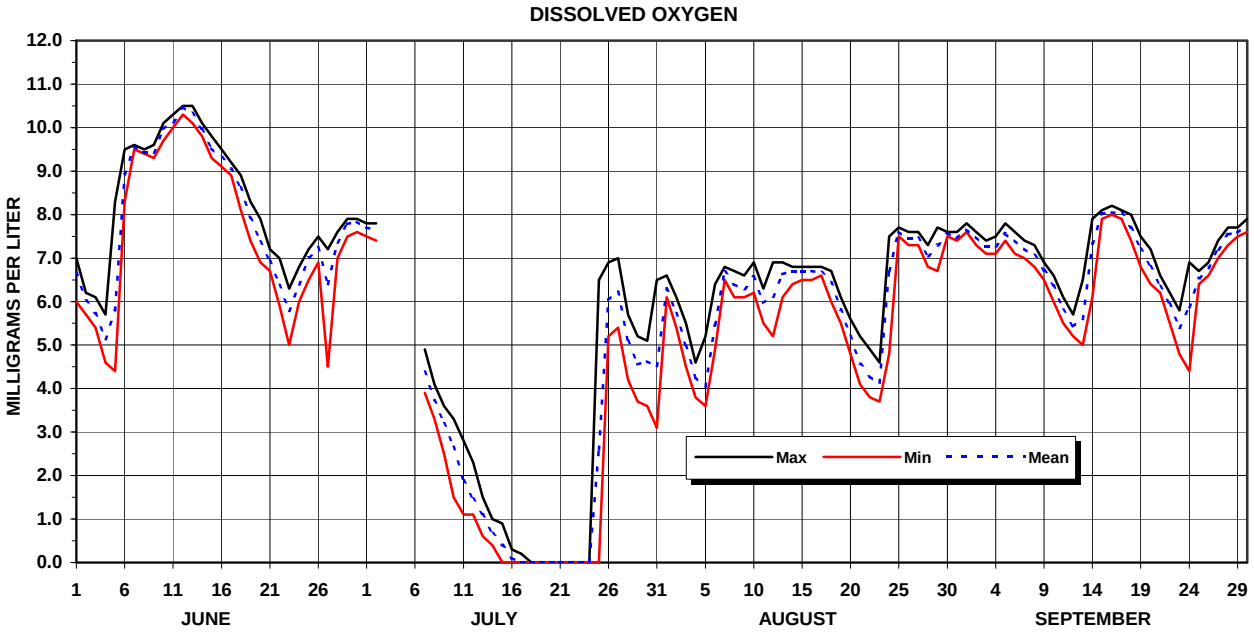
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.6	13.0	13.1	20.8	20.7	20.7	24.4	24.2	24.3	19.2	19.0	19.1
2	14.0	13.2	13.6	21.1	20.6	20.8	24.3	24.1	24.2	19.0	19.0	19.0
3	14.5	13.3	14.1	----	----	----	24.2	24.1	24.1	19.0	19.0	19.0
4	15.1	14.0	14.4	----	----	----	24.2	24.1	24.1	19.1	18.9	19.0
5	17.0	14.6	15.7	----	----	----	24.4	24.1	24.2	19.0	18.9	19.0
6	17.1	16.1	16.6	----	----	----	24.5	24.4	24.4	19.0	18.9	19.0
7	16.2	15.8	15.9	21.0	20.8	20.8	24.5	23.9	24.1	19.0	18.9	18.9
8	16.0	15.9	16.0	20.9	20.7	20.8	24.0	23.8	23.9	19.0	18.9	18.9
9	16.0	15.5	15.8	20.9	20.7	20.8	23.9	23.6	23.7	19.0	18.9	19.0
10	15.5	14.4	14.8	20.9	20.7	20.8	23.7	23.5	23.5	19.0	19.0	19.0
11	14.5	14.3	14.4	21.1	20.7	20.8	23.5	23.5	23.5	19.0	19.0	19.0
12	14.5	13.9	14.2	21.0	20.7	20.8	23.5	23.4	23.5	19.0	19.0	19.0
13	15.3	14.6	14.9	21.0	20.7	20.8	23.4	22.9	23.1	19.2	19.0	19.1
14	16.1	15.2	15.7	21.0	20.7	20.8	23.1	22.4	22.8	19.5	19.2	19.3
15	16.3	16.0	16.1	20.9	20.6	20.8	22.3	21.8	22.0	19.2	18.9	19.1
16	17.0	16.4	16.9	20.9	20.7	20.8	21.8	21.6	21.7	19.0	18.8	18.9
17	17.2	17.0	17.1	21.0	20.8	20.9	21.7	21.6	21.6	18.7	18.6	18.7
18	17.5	17.2	17.4	21.1	20.7	20.9	21.7	21.6	21.6	18.7	18.6	18.6
19	17.5	17.3	17.4	21.2	20.7	20.9	21.6	21.6	21.6	18.7	18.6	18.7
20	18.1	17.3	17.6	21.3	20.7	21.0	21.6	21.6	21.6	18.8	18.6	18.7
21	18.5	17.8	18.1	21.1	20.8	21.0	21.7	21.6	21.6	18.8	18.7	18.8
22	19.0	18.4	18.8	21.3	20.8	21.0	21.7	21.6	21.7	18.9	18.7	18.8
23	20.6	18.9	19.2	21.3	20.8	21.0	21.8	21.6	21.7	18.9	18.7	18.8
24	21.3	20.0	20.8	21.4	20.9	21.1	22.2	21.8	22.0	19.2	18.8	19.0
25	21.5	21.1	21.4	24.4	20.8	22.5	21.7	20.7	21.2	18.9	18.4	18.7
26	21.4	21.3	21.4	24.4	24.0	24.2	20.9	20.5	20.6	18.4	17.8	18.1
27	21.7	18.1	20.9	24.4	24.0	24.2	20.6	20.4	20.5	17.8	17.3	17.5
28	22.1	21.6	21.9	24.2	23.8	24.1	20.4	20.3	20.4	17.4	16.8	17.1
29	22.0	20.8	21.4	24.4	23.8	24.1	20.4	19.9	20.2	16.9	16.7	16.7
30	21.0	20.6	20.7	24.5	24.1	24.3	19.9	19.5	19.7	16.7	16.5	16.7
31	---	---	---	24.9	24.0	24.5	19.5	19.1	19.3	---	---	---
MONTH	**22.1**	**13.0**	**17.0**	**24.9**	**20.6**	**21.0**	**24.5**	**19.1**	**21.8**	**19.5**	**16.5**	**18.9**
PERIOD	**24.9**	**13.0**	**20.6**									



GULF ISLAND POND DEEPHOLE 0.6 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

DISSOLVED OXYGEN MILLIGRAMS PER LITER, 2006

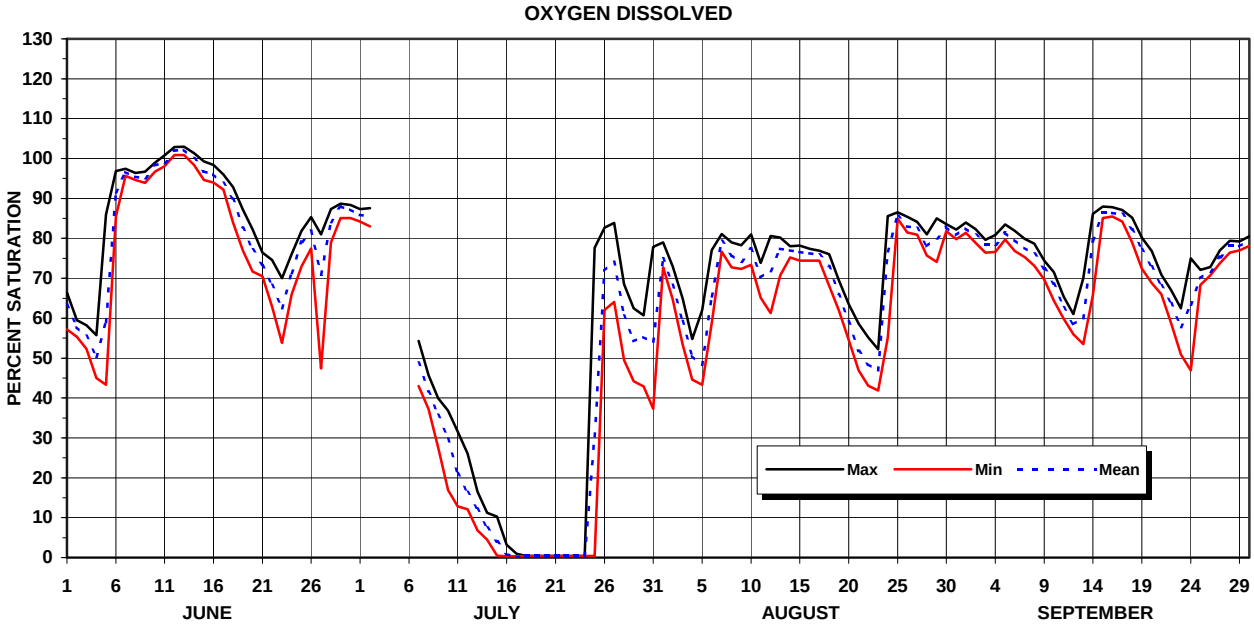
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.0	6.0	6.7	7.8	7.5	7.7	6.6	6.1	6.3	7.8	7.6	7.7
2	6.2	5.7	6.0	7.8	7.4	7.7	6.1	5.4	5.7	7.6	7.3	7.5
3	6.1	5.4	5.7	----	----	----	5.5	4.5	5.0	7.4	7.1	7.3
4	5.7	4.6	5.1	----	----	----	4.6	3.8	4.3	7.5	7.1	7.3
5	8.3	4.4	5.8	----	----	----	5.2	3.6	4.1	7.8	7.4	7.6
6	9.5	8.3	8.9	----	----	----	6.4	4.9	5.5	7.6	7.1	7.4
7	9.6	9.5	9.6	4.9	3.9	4.4	6.8	6.5	6.7	7.4	7.0	7.2
8	9.5	9.4	9.4	4.1	3.3	3.7	6.7	6.1	6.4	7.3	6.8	7.1
9	9.6	9.3	9.4	3.6	2.5	3.2	6.6	6.1	6.3	6.9	6.5	6.7
10	10.1	9.7	10.0	3.3	1.5	2.7	6.9	6.2	6.6	6.6	6.0	6.4
11	10.3	10.0	10.1	2.8	1.1	1.9	6.3	5.5	6.0	6.1	5.5	5.8
12	10.5	10.3	10.5	2.3	1.1	1.5	6.9	5.2	6.1	5.7	5.2	5.4
13	10.5	10.1	10.3	1.5	0.6	1.1	6.9	6.1	6.6	6.5	5.0	5.6
14	10.1	9.8	10.0	1.0	0.4	0.7	6.8	6.4	6.7	7.9	6.1	7.3
15	9.8	9.3	9.5	0.9	0.0	0.4	6.8	6.5	6.7	8.1	7.9	8.0
16	9.5	9.1	9.3	0.3	0.0	0.1	6.8	6.5	6.7	8.2	8.0	8.0
17	9.2	8.9	9.1	0.2	0.0	0.0	6.8	6.6	6.7	8.1	7.9	8.0
18	8.9	8.1	8.6	0.0	0.0	0.0	6.7	6.0	6.4	8.0	7.4	7.7
19	8.3	7.4	7.9	0.0	0.0	0.0	6.1	5.5	5.8	7.5	6.8	7.2
20	7.9	6.9	7.4	0.0	0.0	0.0	5.6	4.8	5.2	7.2	6.4	6.8
21	7.2	6.7	6.9	0.0	0.0	0.0	5.2	4.1	4.6	6.6	6.2	6.3
22	7.0	5.9	6.4	0.0	0.0	0.0	4.9	3.8	4.3	6.2	5.5	6.0
23	6.3	5.0	5.8	0.0	0.0	0.0	4.6	3.7	4.1	5.8	4.8	5.4
24	6.8	6.0	6.4	0.0	0.0	0.0	7.5	4.8	6.7	6.9	4.4	5.9
25	7.2	6.5	7.0	6.5	0.0	2.6	7.7	7.5	7.6	6.7	6.4	6.5
26	7.5	6.9	7.2	6.9	5.2	6.0	7.6	7.3	7.5	6.9	6.6	6.8
27	7.2	4.5	6.4	7.0	5.4	6.2	7.6	7.3	7.5	7.4	7.0	7.2
28	7.6	7.0	7.4	5.7	4.2	5.1	7.3	6.8	7.0	7.7	7.3	7.5
29	7.9	7.5	7.8	5.2	3.7	4.6	7.7	6.7	7.3	7.7	7.5	7.6
30	7.9	7.6	7.8	5.1	3.6	4.6	7.6	7.5	7.6	7.9	7.6	7.7
31	---	---	---	6.5	3.1	4.5	7.6	7.4	7.5	---	---	---
MONTH	**10.5**	**4.4**	**7.9**	**7.8**	**0.0**	**1.5**	**7.7**	**3.6**	**6.5**	**8.2**	**4.4**	**7.1**
PERIOD	**10.5**	**0.0**	**6.6**									



GULF ISLAND POND DEEPHOLE 0.6 MI
ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

OXYGEN DISSOLVED, PERCENT SATURATION, 2006

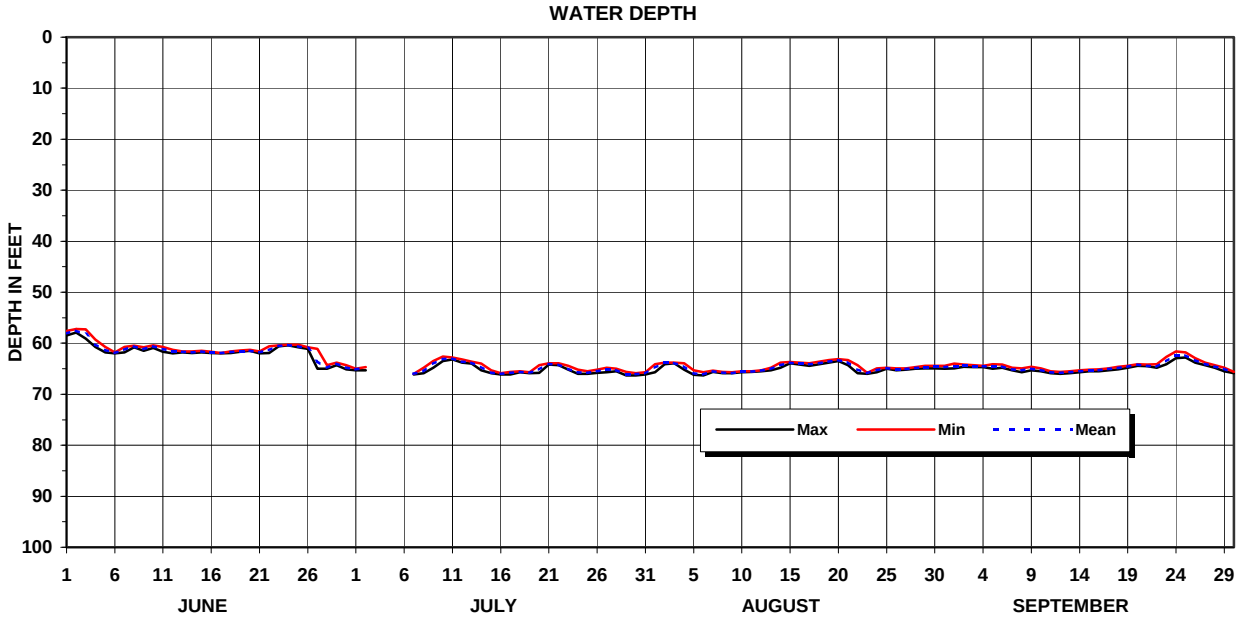
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	**MAX**	**MIN**	**MEAN**	**MAX**	**MIN**	**MEAN**	**MAX**	**MIN**	**MEAN**	**MAX**	**MIN**	**MEAN**
1	66	57	63	87	84	86	79	73	75	84	81	83
2	60	55	58	88	83	85	73	65	68	82	79	81
3	58	52	56	---	---	---	65	53	59	80	76	78
4	56	45	50	---	---	---	55	45	51	81	77	78
5	86	43	59	---	---	---	62	43	48	84	80	81
6	97	86	92	---	---	---	77	59	65	82	77	80
7	97	96	97	54	43	49	81	77	79	80	75	78
8	96	95	95	46	37	42	79	73	76	79	73	76
9	97	94	95	40	28	36	78	72	74	74	70	72
10	99	97	98	37	17	30	81	73	77	72	64	69
11	101	98	99	32	13	21	74	65	70	65	60	63
12	103	101	102	26	12	16	81	61	72	61	56	58
13	103	101	102	17	7	12	80	71	77	70	54	60
14	101	98	100	11	5	7	78	75	77	86	66	79
15	99	95	97	10	1	4	78	74	77	88	85	86
16	98	94	96	3	0	1	77	74	76	88	86	86
17	96	92	94	1	0	0	77	74	76	87	84	86
18	93	84	90	0	0	0	76	68	73	85	79	82
19	87	77	83	0	0	0	70	62	66	80	72	77
20	82	72	77	0	0	0	64	55	59	77	69	73
21	76	71	73	0	0	0	59	47	52	71	66	68
22	75	63	68	0	0	0	55	43	48	67	59	64
23	70	54	62	0	0	0	52	42	47	63	51	58
24	76	66	71	0	0	0	86	55	77	75	47	63
25	82	73	79	78	0	30	87	85	86	72	68	70
26	85	78	82	83	62	72	85	82	83	73	71	72
27	81	47	71	84	64	74	84	81	83	77	74	75
28	87	79	84	69	50	61	81	76	78	79	76	78
29	89	85	88	63	44	54	85	74	80	79	77	78
30	88	85	87	61	43	55	84	82	83	81	78	79
31	---	---	---	78	37	54	82	80	81	---	---	---
MONTH	**103**	**43**	**85**	**88**	**0**	**11**	**87**	**42**	**74**	**88**	**47**	**77**
PERIOD	**103**	**0**	**74**									



GULF ISLAND POND DEEPHOLE 0.6 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

WATER DEPTH IN FEET, 2006

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	58.5	57.6	58.1	65.3	65.0	65.1	65.7	64.1	64.8	64.9	64.0	64.5
2	57.9	57.2	57.5	65.3	64.7	64.9	64.1	63.8	63.9	64.6	64.2	64.4
3	59.1	57.3	58.2	----	----	----	63.9	63.8	63.9	64.7	64.3	64.5
4	60.7	59.3	60.2	----	----	----	65.2	63.9	64.5	64.7	64.4	64.5
5	61.8	60.7	61.3	----	----	----	66.2	65.3	65.9	65.0	64.1	64.6
6	62.0	61.8	61.9	----	----	----	66.3	65.7	66.1	64.8	64.2	64.5
7	61.8	60.7	61.3	66.1	66.0	66.0	65.6	65.4	65.5	65.3	64.8	65.2
8	60.8	60.5	60.6	65.9	64.8	65.5	65.9	65.6	65.7	65.7	64.9	65.3
9	61.5	60.8	61.2	64.8	63.5	64.0	65.9	65.7	65.8	65.3	64.6	65.0
10	60.9	60.4	60.6	63.5	62.6	63.1	65.7	65.5	65.6	65.5	64.9	65.2
11	61.7	60.7	61.1	63.2	62.8	63.0	65.6	65.5	65.6	65.9	65.5	65.7
12	62.0	61.3	61.6	63.8	63.2	63.6	65.5	65.3	65.4	66.0	65.6	65.8
13	61.8	61.6	61.7	64.0	63.6	63.8	65.3	64.8	65.0	65.9	65.5	65.7
14	61.9	61.6	61.8	65.3	64.0	64.6	64.8	63.8	64.3	65.7	65.3	65.5
15	61.8	61.5	61.6	65.9	65.3	65.7	63.9	63.7	63.8	65.5	65.2	65.4
16	61.9	61.7	61.8	66.1	65.9	66.0	64.2	63.8	64.1	65.5	65.1	65.3
17	62.0	61.9	61.9	66.1	65.6	65.8	64.4	63.9	64.1	65.3	64.9	65.1
18	61.9	61.6	61.7	65.7	65.5	65.6	64.1	63.6	63.9	65.1	64.6	64.9
19	61.7	61.4	61.5	65.9	65.7	65.8	63.8	63.3	63.6	64.8	64.4	64.6
20	61.5	61.3	61.5	65.8	64.3	65.2	63.5	63.1	63.3	64.4	64.1	64.2
21	62.0	61.6	61.8	64.2	63.9	64.1	64.3	63.3	63.7	64.5	64.2	64.4
22	61.9	60.6	61.3	64.3	63.9	64.2	65.9	64.3	65.1	64.8	64.1	64.6
23	60.6	60.4	60.5	65.2	64.4	65.0	66.0	65.8	65.9	64.1	62.7	63.5
24	60.4	60.3	60.3	66.0	65.2	65.7	65.7	64.9	65.3	62.9	61.6	62.3
25	60.8	60.3	60.6	66.0	65.5	65.8	65.0	64.8	64.9	62.8	61.8	62.4
26	61.1	60.8	61.0	65.8	65.2	65.5	65.3	64.9	65.1	63.8	62.9	63.3
27	65.0	61.1	63.5	65.7	64.8	65.3	65.2	64.9	65.1	64.3	63.8	64.1
28	65.0	64.3	64.8	65.5	65.0	65.3	65.0	64.7	64.9	64.8	64.3	64.6
29	64.3	63.8	64.0	66.3	65.6	66.1	64.9	64.4	64.7	65.5	64.8	65.0
30	65.1	64.3	64.7	66.3	65.9	66.1	64.9	64.4	64.6	65.9	65.6	65.8
31	---	---	---	66.1	65.7	65.9	65.0	64.4	64.7	---	---	---
MONTH	**65.1**	**57.2**	**61.5**	**66.3**	**62.6**	**65.3**	**66.3**	**63.1**	**64.9**	**62.8**	**61.6**	**64.8**
PERIOD	**66.3**	**57.2**	**64.4**									



GULF ISLAND POND 05-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

LOCATION.-- Lat. 44° 09' 21", Long 70° 12' 28", Androscoggin County, 500-ft from left shore, 0.2 miles above Gulf Island Dam, 7.7 miles downstream from Turner Bridge and 4.6 miles below the oxygen-injection system in Greene.

DRAINAGE AREA.-- 2,840 mi ².

PERIOD OF RECORD.-- Seasonal June to September.

PERIOD OF DAILY RECORD.--
Water Temperature: July 1998 to current year.
Dissolved Oxygen:. July 1998 to current year.
Oxygen Dissolved: July 1998 to current year.

EXTREMES RECORDED FOR PERIOD OF DAILY RECORD.--
Water Temperature: Maximum, 29.5 °C, June 27, 2001; minimum, 13.2 °C, June 14, 2002.
Dissolved Oxygen: Maximum, 11.8 mg/L, July 25, 2003; minimum, 4.7 mg/L, Aug. 16, 2001, Aug. 11, 2002.
Oxygen Dissolved: Maximum, 146 % sat. July 5, 1999; minimum, 55 % sat. July 11, Aug. 11, 2002.

INSTRUMENTATION.-- Pontoon raft anchored in 75-ft water column with profiling monitor. Monitoring point located 05-ft below water surface. Electronic data-logger and solar power, real-time data retrieved by phone telemetry.

REMARKS.-- Monitor not operated during period October to May. Other interruptions in the record were due to malfunctions of the monitor. Water-quality data was recorded at the 05-ft level on Gulf Island Dam 800-ft downstream from 1992 to 1998. Monitor relocated to this site in July 1998. Data for 1992 to 1995 was published annually in the report series "Water Resources Data for Maine" by the U. S. Geological Survey. Beginning 1996 the data was published by Water Monitoring Services, Inc.

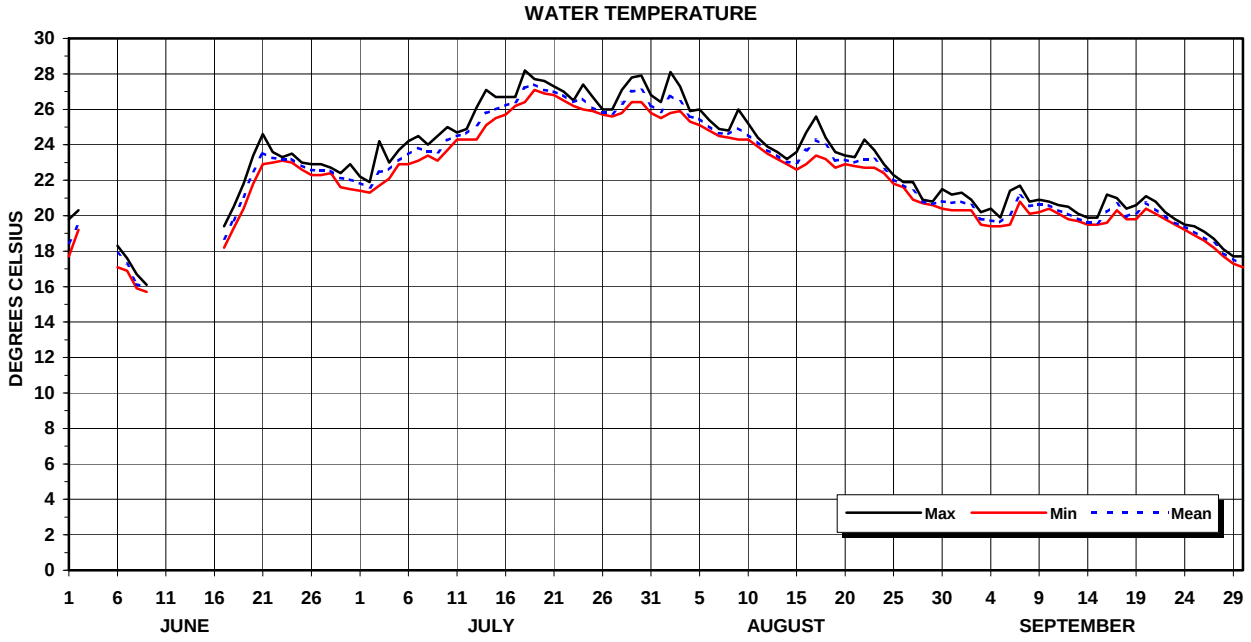
CURRENT YEAR, 2006

EXTREMES RECORDED.--
Water Temperature: Maximum, 28.2 °C, July 18; minimum, 14.2 °C, June 12.
Dissolved Oxygen: Maximum, 9.9 mg/L, June 20; minimum, 5.7 mg/L, July 24.
Oxygen Dissolved: Maximum, 112 % sat. June 20; minimum, 70 % sat. Aug. 19.

GULF ISLAND POND 05-FT LEVEL 0.2 MI
ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

WATER TEMPERATURE, DEGREES CELSIUS, 2006

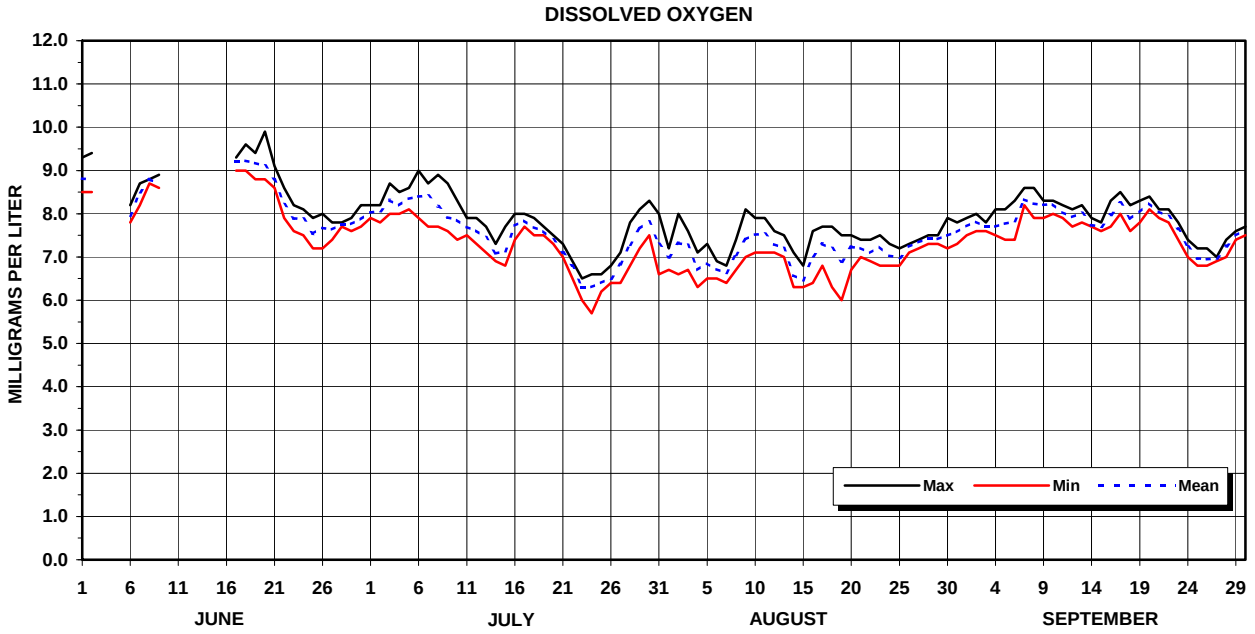
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.8	17.7	18.5	22.2	21.4	21.8	26.4	25.5	25.9	21.3	20.3	20.8
2	20.3	19.2	19.5	21.9	21.3	21.6	28.1	25.8	26.8	20.9	20.3	20.6
3	---	---	---	24.2	21.7	22.5	27.3	25.9	26.4	20.2	19.5	19.8
4	---	---	---	23.0	22.1	22.6	25.9	25.3	25.6	20.4	19.4	19.7
5	---	---	---	23.7	22.9	23.1	26.0	25.1	25.5	19.9	19.4	19.6
6	18.3	17.1	17.9	24.2	22.9	23.5	25.4	24.8	25.1	21.4	19.5	20.1
7	17.6	16.9	17.3	24.5	23.1	23.8	24.9	24.5	24.7	21.7	20.8	21.1
8	16.7	15.9	16.1	24.0	23.4	23.6	24.8	24.4	24.6	20.8	20.1	20.6
9	16.1	15.7	16.0	24.5	23.1	23.6	26.0	24.3	24.9	20.9	20.2	20.6
10	---	---	---	25.0	23.7	24.3	25.2	24.3	24.6	20.8	20.4	20.6
11	---	---	---	24.7	24.3	24.5	24.4	23.9	24.2	20.6	20.1	20.3
12	15.0	14.2	14.5	24.9	24.3	24.6	23.9	23.5	23.7	20.5	19.8	20.1
13	---	---	---	26.1	24.3	25.1	23.6	23.2	23.4	20.1	19.7	19.8
14	---	---	---	27.1	25.1	25.8	23.2	22.9	23.0	19.9	19.5	19.6
15	---	---	---	26.7	25.5	26.0	23.6	22.6	23.0	19.9	19.5	19.6
16	---	---	---	26.7	25.7	26.2	24.7	22.9	23.7	21.2	19.6	20.2
17	19.4	18.2	18.7	26.7	26.2	26.4	25.6	23.4	24.3	21.0	20.3	20.7
18	20.5	19.3	19.8	28.2	26.4	27.2	24.4	23.2	24.0	20.4	19.8	20.0
19	21.8	20.4	21.1	27.7	27.1	27.4	23.6	22.7	23.1	20.6	19.8	20.2
20	23.4	21.8	22.5	27.6	26.9	27.1	23.4	22.9	23.2	21.1	20.4	20.7
21	24.6	22.9	23.5	27.3	26.8	27.0	23.3	22.8	23.0	20.8	20.1	20.4
22	23.6	23.0	23.3	27.0	26.5	26.8	24.3	22.7	23.2	20.2	19.8	20.0
23	23.3	23.1	23.2	26.5	26.2	26.4	23.7	22.7	23.2	19.8	19.5	19.6
24	23.5	23.0	23.2	27.4	26.0	26.6	22.9	22.4	22.6	19.5	19.2	19.4
25	23.0	22.6	22.8	26.7	25.9	26.1	22.3	21.8	22.0	19.4	18.9	19.1
26	22.9	22.3	22.6	26.0	25.7	25.8	21.9	21.6	21.7	19.1	18.6	18.8
27	22.9	22.3	22.5	26.0	25.6	25.8	21.9	20.9	21.4	18.7	18.2	18.4
28	22.7	22.4	22.6	27.1	25.8	26.3	20.9	20.7	20.8	18.1	17.7	17.9
29	22.4	21.6	22.1	27.8	26.4	27.0	20.8	20.6	20.6	17.7	17.3	17.6
30	22.9	21.5	22.0	27.9	26.4	27.1	21.5	20.4	20.8	17.7	17.1	17.2
31	---	---	---	26.8	25.8	26.2	21.2	20.3	20.7	---	---	---
MONTH	**24.6**	**14.2**	**21.7**	**28.2**	**21.3**	**25.8**	**28.1**	**20.3**	**23.6**	**21.7**	**17.1**	**19.9**
PERIOD	**28.2**	**14.2**	**21.9**									



GULF ISLAND POND 05-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

DISSOLVED OXYGEN, MILLIGRAMS PER LITER, 2006

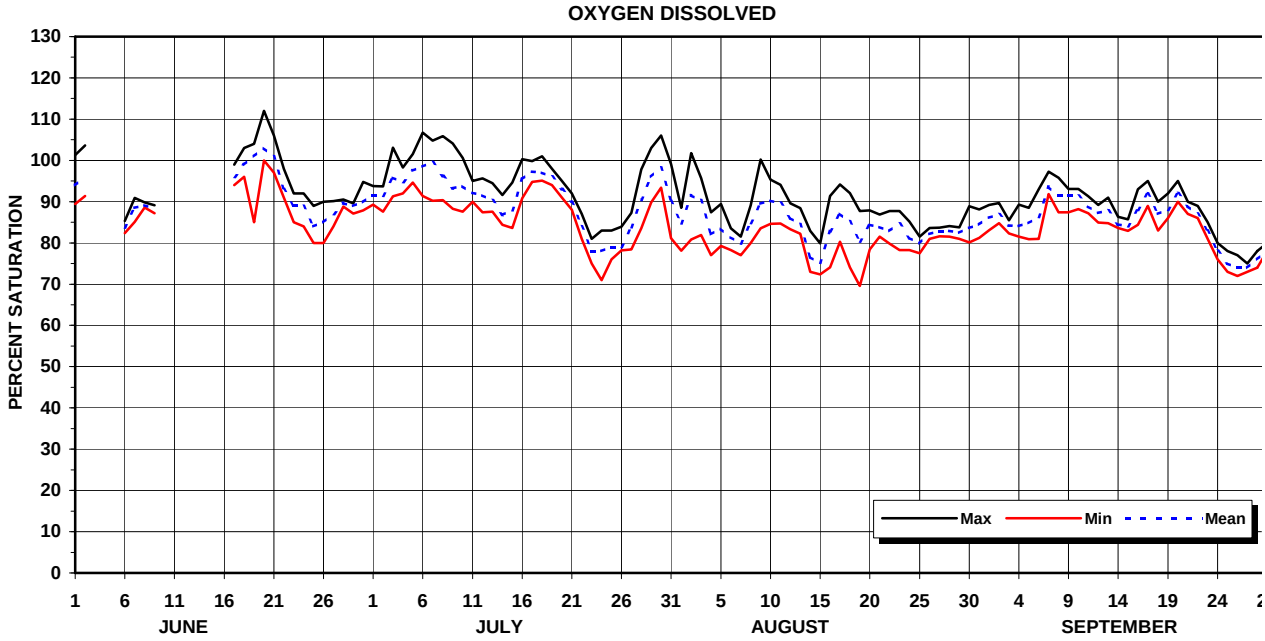
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.3	8.5	8.8	8.2	7.9	8.0	7.2	6.7	7.0	7.9	7.5	7.7
2	9.4	8.5	8.8	8.2	7.8	8.1	8.0	6.6	7.3	8.0	7.6	7.8
3	---	---	---	8.7	8.0	8.3	7.6	6.7	7.3	7.8	7.6	7.7
4	---	---	---	8.5	8.0	8.2	7.1	6.3	6.7	8.1	7.5	7.7
5	---	---	---	8.6	8.1	8.3	7.3	6.5	6.9	8.1	7.4	7.8
6	8.2	7.8	8.0	9.0	7.9	8.4	6.9	6.5	6.7	8.3	7.4	7.8
7	8.7	8.2	8.5	8.7	7.7	8.4	6.8	6.4	6.6	8.6	8.2	8.3
8	8.8	8.7	8.8	8.9	7.7	8.2	7.4	6.7	7.1	8.6	7.9	8.2
9	8.9	8.6	8.7	8.7	7.6	7.9	8.1	7.0	7.4	8.3	7.9	8.2
10	---	---	---	8.3	7.4	7.9	7.9	7.1	7.5	8.3	8.0	8.2
11	---	---	---	7.9	7.5	7.7	7.9	7.1	7.5	8.2	7.9	8.0
12	9.7	9.5	9.6	7.9	7.3	7.6	7.6	7.1	7.3	8.1	7.7	7.9
13	---	---	---	7.7	7.1	7.5	7.5	7.0	7.2	8.2	7.8	8.0
14	---	---	---	7.3	6.9	7.1	7.1	6.3	6.6	7.9	7.7	7.7
15	---	---	---	7.7	6.8	7.1	6.8	6.3	6.5	7.8	7.6	7.7
16	---	---	---	8.0	7.4	7.7	7.6	6.4	7.0	8.3	7.7	8.0
17	9.3	9.0	9.2	8.0	7.7	7.8	7.7	6.8	7.3	8.5	8.0	8.2
18	9.6	9.0	9.2	7.9	7.5	7.7	7.7	6.3	7.2	8.2	7.6	7.9
19	9.4	8.8	9.2	7.7	7.5	7.6	7.5	6.0	6.9	8.3	7.8	8.0
20	9.9	8.8	9.1	7.5	7.3	7.4	7.5	6.7	7.2	8.4	8.1	8.2
21	9.1	8.6	8.8	7.3	7.0	7.1	7.4	7.0	7.2	8.1	7.9	8.1
22	8.6	7.9	8.2	6.9	6.5	6.8	7.4	6.9	7.1	8.1	7.8	7.9
23	8.2	7.6	7.9	6.5	6.0	6.3	7.5	6.8	7.2	7.8	7.4	7.7
24	8.1	7.5	7.9	6.6	5.7	6.3	7.3	6.8	7.0	7.4	7.0	7.2
25	7.9	7.2	7.5	6.6	6.2	6.4	7.2	6.8	7.0	7.2	6.8	7.0
26	8.0	7.2	7.7	6.8	6.4	6.5	7.3	7.1	7.2	7.2	6.8	7.0
27	7.8	7.4	7.6	7.1	6.4	6.8	7.4	7.2	7.3	7.0	6.9	7.0
28	7.8	7.7	7.8	7.8	6.8	7.3	7.5	7.3	7.4	7.4	7.0	7.3
29	7.9	7.6	7.8	8.1	7.2	7.7	7.5	7.3	7.4	7.6	7.4	7.5
30	8.2	7.7	7.9	8.3	7.5	7.8	7.9	7.2	7.5	7.7	7.5	7.6
31	---	---	---	8.0	6.6	7.3	7.8	7.3	7.6	---	---	---
MONTH	**9.9**	**7.2**	**8.5**	**9.0**	**5.7**	**7.7**	**8.1**	**6.0**	**7.2**	**8.6**	**6.8**	**7.8**
PERIOD	**9.9**	**5.7**	**7.7**	**Days < 5.0 mg/L**		**0**						



GULF ISLAND POND 05-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

OXYGEN DISSOLVED, PERCENT SATURATION, 2006

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	101	89	94	94	89	92	89	78	85	89	83	86
2	104	91	96	94	88	91	102	81	91	90	85	87
3	----	----	----	103	91	96	96	82	90	86	82	84
4	----	----	----	98	92	95	87	77	82	89	82	84
5	----	----	----	102	95	97	89	79	83	89	81	85
6	85	82	84	107	91	99	84	78	81	93	81	86
7	91	85	88	105	90	100	82	77	80	97	92	94
8	90	89	89	106	90	96	89	80	85	96	87	91
9	89	87	88	104	88	93	100	84	90	93	87	91
10	----	----	----	101	88	94	95	85	90	93	88	91
11	----	----	----	95	90	92	94	85	90	91	87	89
12	96	93	95	96	87	92	90	83	86	89	85	87
13	----	----	----	95	88	90	88	82	85	91	85	88
14	----	----	----	92	84	87	83	73	77	86	84	84
15	----	----	----	95	84	88	80	72	75	86	83	84
16	----	----	----	100	91	95	91	74	83	93	84	88
17	99	94	96	100	95	97	94	80	87	95	89	92
18	103	96	99	101	95	97	92	74	85	90	83	87
19	104	85	101	98	94	96	88	70	80	92	86	88
20	112	100	103	95	91	93	88	78	84	95	90	92
21	106	97	101	92	88	90	87	82	84	90	87	89
22	98	91	93	87	81	84	88	80	83	89	86	87
23	92	85	89	81	75	78	88	78	85	85	81	83
24	92	84	89	83	71	78	85	78	81	80	76	78
25	89	80	84	83	76	79	82	78	80	78	73	75
26	90	80	85	84	78	79	84	81	82	77	72	74
27	90	84	87	87	78	84	84	82	83	75	73	74
28	91	89	90	98	84	90	84	82	83	78	74	76
29	90	87	89	103	90	96	84	81	82	80	78	78
30	95	88	90	106	93	98	89	80	84	81	78	79
31	---	---	---	99	81	90	88	81	84	---	---	---
MONTH	112	80	90	107	71	92	102	70	83	97	72	86
PERIOD	112	70	88	Days < 60% Saturation		0						



GULF ISLAND POND 20-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

LOCATION.-- Lat. 44° 09' 21", Long 70° 12' 28", Androscoggin County, 500-ft from left shore, 0.2 miles above Gulf Island Dam, 7.7 miles downstream from Turner Bridge and 4.6 miles below the oxygen-injection system in Greene.

DRAINAGE AREA.-- 2,840 mi ².

PERIOD OF RECORD.-- Seasonal June to September.

PERIOD OF DAILY RECORD.
Water Temperature: July 1998 to current year.
Dissolved Oxygen:. July 1998 to current year.
Oxygen Dissolved: July 1998 to current year.

EXTREMES RECORDED FOR THE PERIOD OF DAILY RECORD.--
Water Temperature: Maximum, 27.4 °C, July 5, 2002; minimum, 12.9 °C, June 14, 2002.
Dissolved Oxygen: Maximum, 11.1 mg/L, June 9, 2004; minimum, 4.3 mg/L, Aug. 30, 2002.
Oxygen Dissolved: Maximum, 132 % sat. June 28, 2001; minimum, 50 % sat. Aug. 30, 2002.

INSTRUMENTATION.-- Pontoon raft anchored in 75-ft water column. with profiling monitor. Monitoring point located 20-ft below water surface. Electronic data-logger and solar power, real-time data retrieved by phone telemetry.

REMARKS.-- Monitor not operated during period October to May. Other interruptions in the record were due to malfunctions of the monitor. Water-quality data was recorded at the 20-ft level on Gulf Island Dam 800-ft downstream from 1981 to 1998. Monitor relocated to this site in July 1998. Data for 1981 to 1995 was published annually in the report series "Water Resources Data for Maine" by the U. S. Geological Survey. Beginning 1996 the data was published by Water Monitoring Services, Inc.

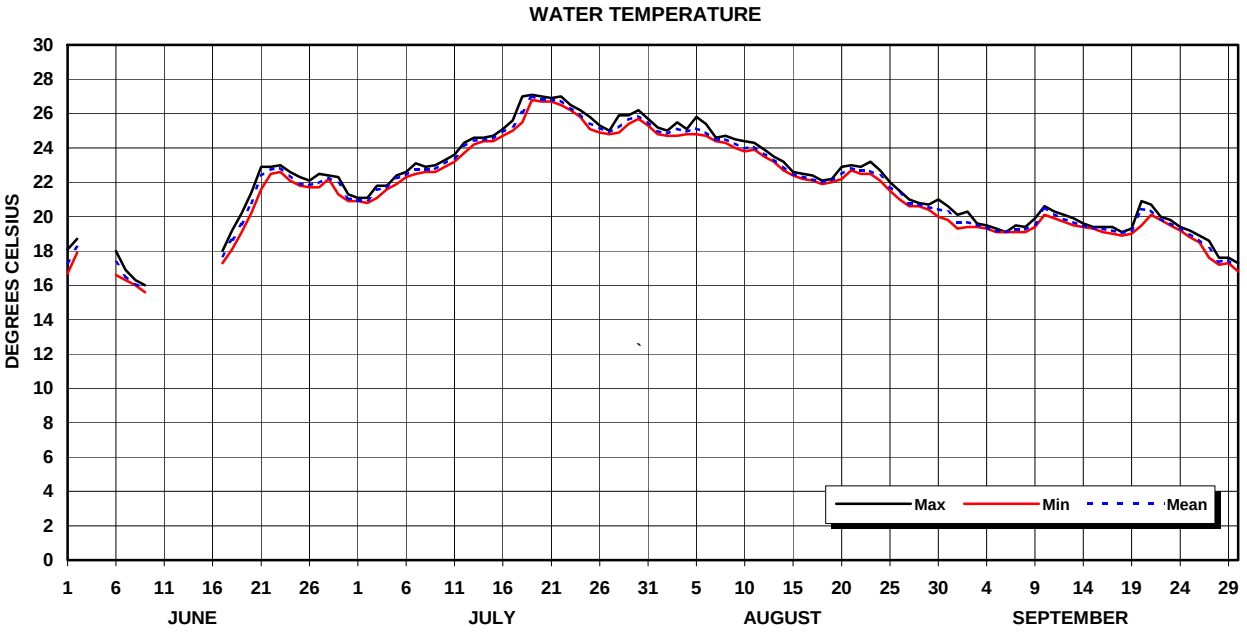
CURRENT YEAR, 2006

EXTREMES RECORDED.--
Water Temperature: Maximum, 27.1°C, July 19; minimum, 14.1 °C, June 12.
Dissolved Oxygen: Maximum, 9.8 mg/L, June 12; minimum, 5.7 mg/L, Aug. 2-5.
Oxygen Dissolved: Maximum, 97 % sat. June 21; minimum, 67 % sat. Aug. 18.

GULF ISLAND POND 20-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

WATER TEMPERATURE, DEGREES CELSIUS, 2006

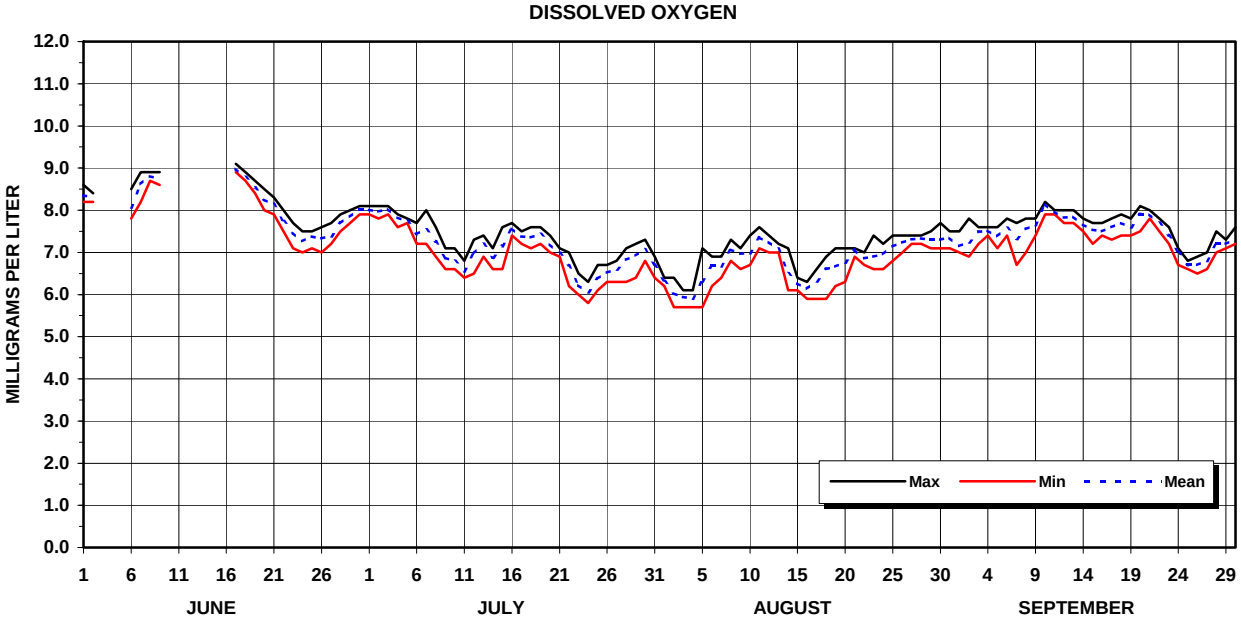
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.1	16.7	17.3	21.1	20.9	21.0	25.2	24.8	25.0	20.1	19.3	19.7
2	18.7	17.9	18.2	21.1	20.8	21.0	25.0	24.7	24.8	20.3	19.4	19.7
3	---	---	---	21.8	21.1	21.6	25.5	24.7	25.1	19.6	19.4	19.5
4	---	---	---	21.8	21.6	21.7	25.1	24.8	24.9	19.5	19.3	19.4
5	---	---	---	22.4	21.9	22.2	25.8	24.8	25.1	19.3	19.1	19.2
6	18.0	16.6	17.3	22.6	22.3	22.4	25.4	24.7	24.9	19.1	19.1	19.1
7	16.9	16.3	16.5	23.1	22.5	22.8	24.6	24.4	24.5	19.5	19.1	19.2
8	16.3	16.0	16.1	22.9	22.6	22.7	24.7	24.3	24.5	19.4	19.1	19.3
9	16.0	15.6	15.9	23.0	22.6	22.8	24.5	24.0	24.3	19.9	19.4	19.5
10	---	---	---	23.3	22.9	23.1	24.4	23.8	24.0	20.6	20.1	20.5
11	---	---	---	23.6	23.2	23.4	24.3	23.9	24.1	20.3	19.9	20.1
12	14.6	14.1	14.4	24.3	23.7	24.1	23.9	23.5	23.7	20.1	19.7	19.9
13	---	---	---	24.6	24.2	24.4	23.5	23.2	23.3	19.9	19.5	19.7
14	---	---	---	24.6	24.4	24.5	23.2	22.7	22.9	19.6	19.4	19.5
15	---	---	---	24.7	24.4	24.5	22.6	22.4	22.5	19.4	19.3	19.3
16	---	---	---	25.1	24.7	24.9	22.5	22.2	22.3	19.4	19.1	19.3
17	18.0	17.3	17.7	25.6	25.0	25.3	22.4	22.1	22.2	19.4	19.0	19.2
18	19.2	18.1	18.7	27.0	25.5	26.1	22.1	21.9	22.0	19.1	18.9	19.0
19	20.2	19.1	19.5	27.1	26.8	27.0	22.2	22.0	22.1	19.3	19.0	19.2
20	21.4	20.2	20.8	27.0	26.7	26.8	22.9	22.2	22.5	20.9	19.5	20.4
21	22.9	21.6	22.4	26.9	26.7	26.8	23.0	22.7	22.8	20.7	20.1	20.4
22	22.9	22.5	22.7	27.0	26.5	26.8	22.9	22.5	22.7	20.0	19.8	19.9
23	23.0	22.6	22.8	26.5	26.2	26.3	23.2	22.5	22.7	19.8	19.5	19.6
24	22.6	22.1	22.4	26.2	25.8	26.0	22.7	22.1	22.4	19.4	19.2	19.4
25	22.3	21.8	21.9	25.8	25.1	25.4	22.0	21.5	21.8	19.2	18.8	19.0
26	22.1	21.7	21.8	25.3	24.9	25.2	21.5	21.0	21.4	18.9	18.5	18.7
27	22.5	21.7	22.0	25.0	24.8	24.9	21.0	20.6	20.7	18.6	17.6	18.1
28	22.4	22.2	22.3	25.9	24.9	25.2	20.8	20.6	20.7	17.6	17.2	17.4
29	22.3	21.3	21.9	25.9	25.4	25.6	20.7	20.4	20.6	17.6	17.3	17.5
30	21.3	20.9	21.1	26.2	25.7	25.9	21.0	20.0	20.4	17.3	16.8	17.0
31	---	---	---	25.7	25.3	25.5	20.6	19.8	20.3	---	---	---
MONTH	**23.0**	**14.1**	**20.6**	**27.1**	**20.8**	**24.8**	**25.8**	**19.8**	**22.8**	**20.9**	**16.8**	**19.4**
PERIOD	**27.1**	**14.1**	**22.0**									



GULF ISLAND POND 20-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

DISSOLVED OXYGEN MILLIGRAMS PER LITER, 2006

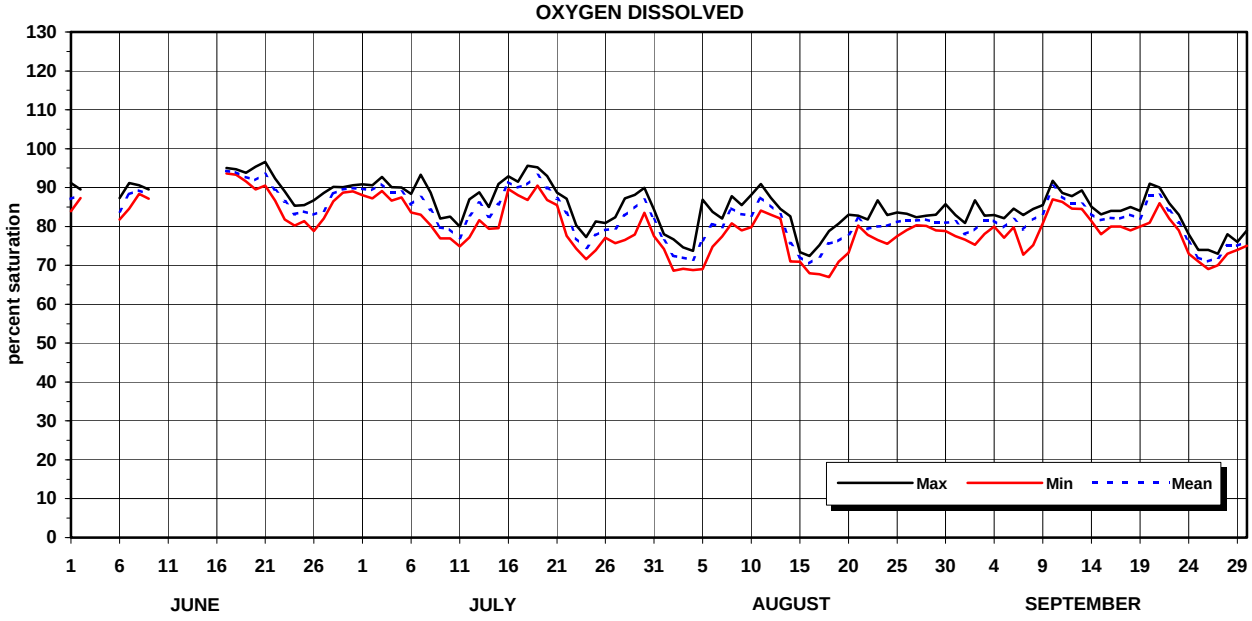
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.6	8.2	8.4	8.1	7.9	8.0	6.4	6.2	6.3	7.5	7.0	7.2
2	8.4	8.2	8.3	8.1	7.8	8.0	6.4	5.7	6.0	7.8	6.9	7.2
3	---	---	---	8.1	7.9	8.0	6.1	5.7	5.9	7.6	7.2	7.5
4	---	---	---	7.9	7.6	7.8	6.1	5.7	5.9	7.6	7.4	7.5
5	---	---	---	7.8	7.7	7.7	7.1	5.7	6.3	7.6	7.1	7.4
6	8.5	7.8	8.1	7.7	7.2	7.4	6.9	6.2	6.7	7.8	7.4	7.6
7	8.9	8.2	8.6	8.0	7.2	7.5	6.9	6.4	6.7	7.7	6.7	7.3
8	8.9	8.7	8.8	7.6	6.9	7.3	7.3	6.8	7.1	7.8	7.0	7.6
9	8.9	8.6	8.8	7.1	6.6	6.9	7.1	6.6	7.0	7.8	7.4	7.6
10	---	---	---	7.1	6.6	6.8	7.4	6.7	7.0	8.2	7.9	8.1
11	---	---	---	6.8	6.4	6.6	7.6	7.1	7.4	8.0	7.9	8.0
12	9.8	9.6	9.7	7.3	6.5	7.0	7.4	7.0	7.2	8.0	7.7	7.8
13	---	---	---	7.4	6.9	7.2	7.2	7.0	7.1	8.0	7.7	7.8
14	---	---	---	7.1	6.6	6.9	7.1	6.1	6.5	7.8	7.5	7.7
15	---	---	---	7.6	6.6	7.2	6.4	6.1	6.3	7.7	7.2	7.5
16	---	---	---	7.7	7.4	7.6	6.3	5.9	6.1	7.7	7.4	7.5
17	9.1	8.9	9.0	7.5	7.2	7.4	6.6	5.9	6.3	7.8	7.3	7.6
18	8.9	8.7	8.8	7.6	7.1	7.4	6.9	5.9	6.6	7.9	7.4	7.7
19	8.7	8.4	8.5	7.6	7.2	7.4	7.1	6.2	6.7	7.8	7.4	7.6
20	8.5	8.0	8.3	7.4	7.0	7.2	7.1	6.3	6.8	8.1	7.5	7.9
21	8.3	7.9	8.1	7.1	6.9	7.0	7.1	6.9	7.1	8.0	7.8	7.9
22	8.0	7.5	7.7	7.0	6.2	6.7	7.0	6.7	6.9	7.8	7.5	7.7
23	7.7	7.1	7.5	6.5	6.0	6.2	7.4	6.6	6.9	7.6	7.2	7.4
24	7.5	7.0	7.3	6.3	5.8	6.1	7.2	6.6	7.0	7.1	6.7	7.0
25	7.5	7.1	7.4	6.7	6.1	6.4	7.4	6.8	7.1	6.8	6.6	6.7
26	7.6	7.0	7.3	6.7	6.3	6.5	7.4	7.0	7.2	6.9	6.5	6.7
27	7.7	7.2	7.4	6.8	6.3	6.6	7.4	7.2	7.3	7.0	6.6	6.8
28	7.9	7.5	7.7	7.1	6.3	6.8	7.4	7.2	7.3	7.5	7.0	7.2
29	8.0	7.7	7.8	7.2	6.4	6.9	7.5	7.1	7.3	7.3	7.1	7.2
30	8.1	7.9	8.0	7.3	6.8	7.1	7.7	7.1	7.3	7.6	7.2	7.3
31	---	---	---	6.9	6.4	6.7	7.5	7.1	7.4	---	---	---
MONTH	**9.8**	**7.0**	**8.2**	**8.1**	**5.8**	**7.1**	**7.7**	**5.7**	**6.9**	**8.2**	**6.5**	**7.5**
PERIOD	**9.8**	**5.7**	**7.3**	**Days <5.0 mg/L**		**0**						



GULF ISLAND POND 20-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

OXYGEN DISSOLVED PERCENT SATURATION, 2006

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	91	84	87	91	88	90	78	74	76	81	77	78
2	90	87	88	91	87	89	77	69	73	87	75	79
3	---	---	---	93	89	91	75	69	72	83	78	81
4	---	---	---	90	87	89	74	69	71	83	80	82
5	---	---	---	90	88	89	87	69	77	82	77	80
6	87	82	84	88	84	86	84	75	81	85	80	82
7	91	85	88	93	83	87	82	77	80	83	73	79
8	91	88	89	89	80	84	88	81	85	85	75	82
9	90	87	88	82	77	80	86	79	83	86	81	83
10	---	---	---	83	77	79	88	80	83	92	87	90
11	---	---	---	80	75	77	91	84	87	89	86	88
12	96	94	95	87	77	83	87	83	85	88	85	86
13	---	---	---	89	82	86	85	82	83	89	85	86
14	---	---	---	85	79	83	83	71	76	85	81	83
15	---	---	---	91	80	86	73	71	72	83	78	82
16	---	---	---	93	90	91	72	68	71	84	80	82
17	95	94	94	92	88	90	75	68	72	84	80	82
18	95	93	94	96	87	91	79	67	76	85	79	83
19	94	92	93	95	91	93	81	71	76	84	80	82
20	95	90	92	93	87	90	83	73	78	91	81	88
21	97	91	93	89	86	87	83	80	82	90	86	88
22	92	87	89	87	78	84	82	78	79	86	82	84
23	89	82	86	80	74	77	87	77	80	83	79	81
24	85	80	83	77	72	75	83	76	80	78	73	76
25	86	81	84	81	74	78	84	78	81	74	71	72
26	87	79	83	81	77	79	83	79	82	74	69	71
27	89	82	84	82	76	80	82	80	82	73	70	72
28	90	87	88	87	77	83	83	80	82	78	73	75
29	90	89	90	88	78	85	83	79	81	76	74	75
30	91	89	90	90	84	87	86	79	81	79	75	76
31	---	---	---	84	78	82	83	78	81	---	---	---
MONTH	97	79	89	96	72	86	91	67	79	92	69	81
PERIOD	97	67	83	Days < 60% Saturation			0					



GULF ISLAND POND 35-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

LOCATION.-- Lat. 44° 09' 21", Long 70° 12' 28", Androscoggin County, 500-ft from left shore, 0.2 miles above Gulf Island Dam, 7.7 miles downstream from Turner Bridge and 4.6 miles below the oxygen-injection system in Greene.

DRAINAGE AREA.-- 2,840 mi ².

PERIOD OF RECORD.-- Seasonal June to September.

PERIOD OF DAILY RECORD.--
Water Temperature: July 1998 to current year.
Dissolved Oxygen:. July 1998 to current year.
Oxygen Dissolved: July 1998 to current year.

EXTREMES RECORDED FOR THE PERIOD OF DAILY RECORD.--
Water Temperature: Maximum, 27.1 °C, July 18, 1999, Aug. 11, 2001, Aug. 20, 21, 2002; minimum, 13.0 °C, June 14, 2002.
Dissolved Oxygen: Maximum, 11.3 mg/L, June 14, 2002; minimum, 3.9 mg/L, June 7, 1999.
Oxygen Dissolved: Maximum, 117 % sat. July 18, Aug. 2, 1999; minimum, 44 % sat. June 7, 1999.

INSTRUMENTATION.-- Pontoon raft anchored in 75-ft water column with profiling monitor. Monitoring point located 35-ft below water surface. Electronic data-logger and solar power, real-time data retrieved by phone telemetry.

REMARKS.-- Monitor not operated during period October to May. Other interruptions in the record were due to malfunctions of the monitor. Water-quality data was recorded at the 35-ft level at Gulf Island Dam 800-ft downstream from 1992 to 1998. Monitor relocated to this site in July 1998. Data for 1992 to 1995 was published annually in the report series "Water Resources Data for Maine" by the U. S. Geological Survey. Beginning 1996 the data was published by Water Monitoring Services, Inc.

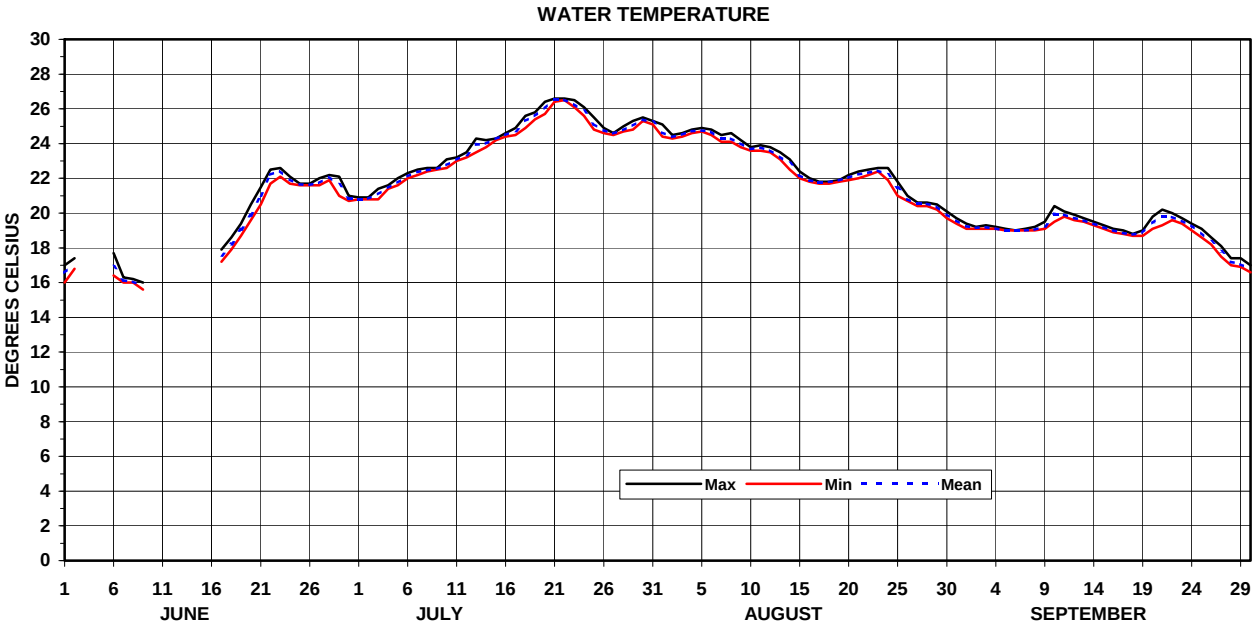
CURRENT YEAR, 2006

EXTREMES RECORDED.--
Water Temperature: Maximum, 26.6 °C, July 21, 22; minimum, 14.1 °C, June 12.
Dissolved Oxygen: Maximum, 9.8 mg/L, June 12; minimum, 5.3 mg/L, Aug. 4.
Oxygen Dissolved: Maximum, 96 % sat. June 12; minimum, 63 % sat. Aug. 4.

GULF ISLAND POND 35-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

WATER TEMPERATURE, DEGREES CELSIUS, 2006

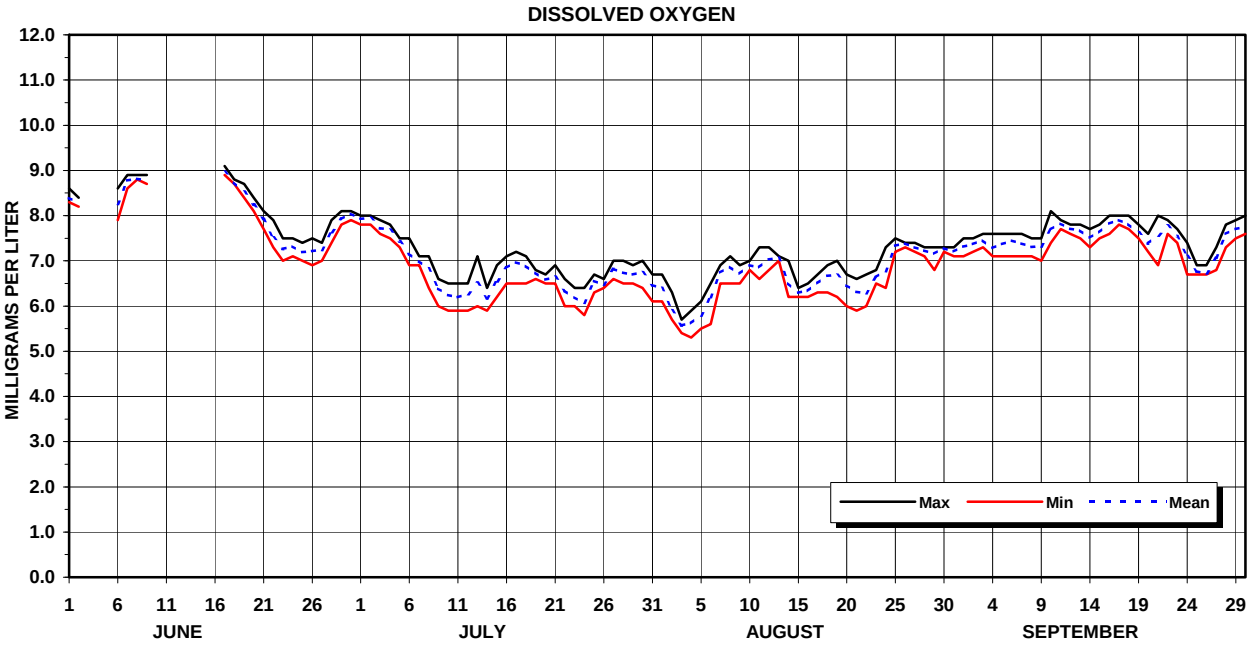
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	16.0	16.6	20.9	20.8	20.8	25.1	24.4	24.7	19.4	19.1	19.3
2	17.4	16.8	17.1	20.9	20.8	20.8	24.5	24.3	24.4	19.2	19.1	19.1
3	---	---	---	21.4	20.8	21.1	24.6	24.4	24.5	19.3	19.1	19.2
4	---	---	---	21.6	21.4	21.5	24.8	24.6	24.7	19.2	19.1	19.1
5	---	---	---	22.0	21.6	21.8	24.9	24.7	24.8	19.1	19.0	19.0
6	17.7	16.4	16.9	22.3	22.0	22.1	24.8	24.5	24.7	19.0	19.0	19.0
7	16.3	16.0	16.1	22.5	22.2	22.4	24.5	24.1	24.3	19.1	19.0	19.0
8	16.2	16.0	16.1	22.6	22.4	22.5	24.6	24.1	24.3	19.2	19.0	19.0
9	16.0	15.6	15.8	22.6	22.5	22.5	24.2	23.8	24.0	19.5	19.1	19.2
10	---	---	---	23.1	22.6	22.8	23.8	23.6	23.7	20.4	19.5	19.9
11	---	---	---	23.2	23.0	23.1	23.9	23.6	23.8	20.1	19.8	19.9
12	14.5	14.1	14.3	23.5	23.2	23.4	23.8	23.5	23.6	19.9	19.6	19.7
13	---	---	---	24.3	23.5	23.9	23.5	23.1	23.3	19.7	19.5	19.6
14	---	---	---	24.2	23.8	24.0	23.1	22.5	22.9	19.5	19.3	19.4
15	---	---	---	24.3	24.2	24.3	22.4	22.0	22.2	19.3	19.1	19.2
16	---	---	---	24.6	24.4	24.5	22.0	21.8	21.9	19.1	18.9	19.0
17	17.9	17.2	17.6	24.9	24.5	24.7	21.8	21.7	21.8	19.0	18.8	18.9
18	18.6	17.9	18.2	25.6	24.9	25.3	21.8	21.7	21.8	18.8	18.7	18.8
19	19.4	18.7	19.1	25.8	25.4	25.6	21.9	21.8	21.9	19.0	18.7	18.9
20	20.5	19.6	19.9	26.4	25.7	26.0	22.2	21.9	22.0	19.8	19.1	19.4
21	21.5	20.5	21.0	26.6	26.4	26.5	22.4	22.0	22.2	20.2	19.3	19.8
22	22.5	21.7	22.2	26.6	26.5	26.5	22.5	22.2	22.3	20.0	19.6	19.8
23	22.6	22.1	22.4	26.5	26.1	26.3	22.6	22.4	22.4	19.7	19.4	19.6
24	22.1	21.7	21.9	26.1	25.6	25.9	22.6	21.9	22.2	19.4	19.0	19.3
25	21.7	21.6	21.7	25.5	24.8	25.1	21.8	21.0	21.5	19.1	18.6	18.9
26	21.7	21.6	21.6	24.9	24.6	24.8	21.0	20.7	20.8	18.6	18.2	18.4
27	22.0	21.6	21.7	24.6	24.5	24.6	20.6	20.4	20.5	18.1	17.5	17.8
28	22.2	21.9	22.1	25.0	24.7	24.8	20.6	20.4	20.5	17.4	17.0	17.2
29	22.1	21.0	21.6	25.3	24.8	25.0	20.5	20.2	20.4	17.4	16.9	17.1
30	21.0	20.7	20.8	25.5	25.3	25.4	20.1	19.7	19.9	17.0	16.6	16.8
31	---	---	---	25.3	25.1	25.3	19.7	19.4	19.6	---	---	---
MONTH	**22.6**	**14.1**	**20.1**	**26.6**	**20.8**	**24.5**	**25.1**	**19.4**	**22.5**	**20.4**	**16.6**	**19.1**
PERIOD	**26.6**	**14.1**	**21.7**									



GULF ISLAND POND 35-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

DISSOLVED OXYGEN, MILLIGRAMS PER LITER, 2006

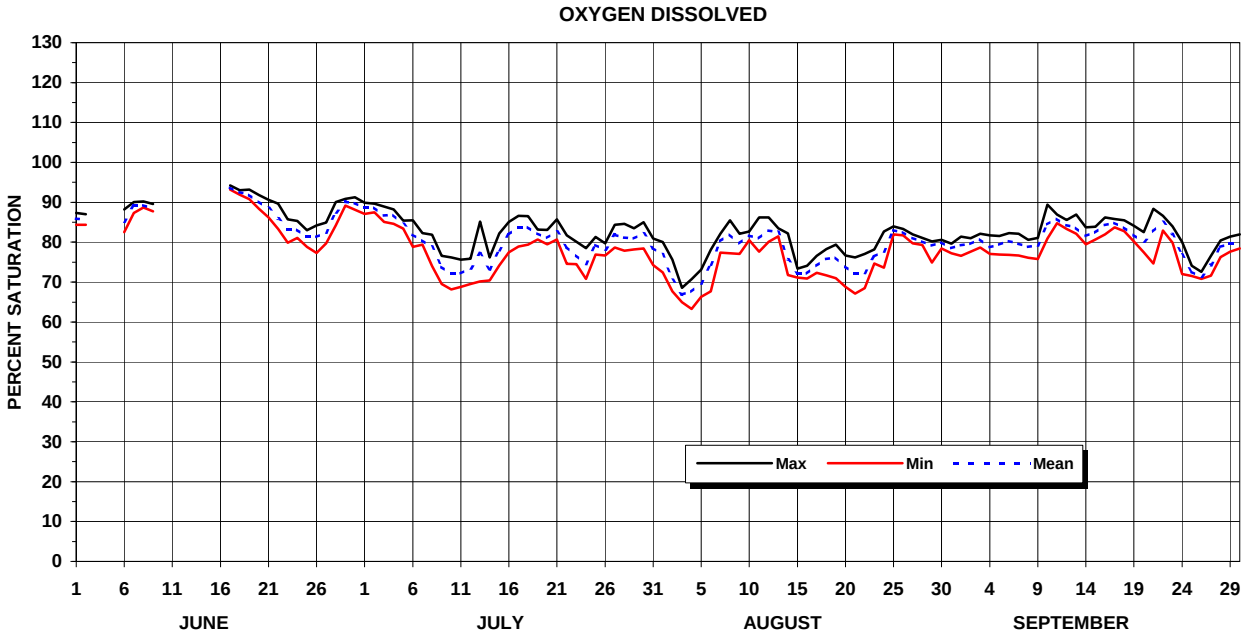
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.6	8.3	8.4	8.0	7.8	7.9	6.7	6.1	6.4	7.5	7.1	7.3
2	8.4	8.2	8.3	8.0	7.8	7.9	6.3	5.7	5.9	7.5	7.2	7.4
3	---	---	---	7.9	7.6	7.7	5.7	5.4	5.6	7.6	7.3	7.5
4	---	---	---	7.8	7.5	7.7	5.9	5.3	5.6	7.6	7.1	7.3
5	---	---	---	7.5	7.3	7.4	6.1	5.5	5.8	7.6	7.1	7.4
6	8.6	7.9	8.3	7.5	6.9	7.2	6.5	5.6	6.2	7.6	7.1	7.4
7	8.9	8.6	8.8	7.1	6.9	7.0	6.9	6.5	6.7	7.6	7.1	7.4
8	8.9	8.8	8.8	7.1	6.4	6.8	7.1	6.5	6.9	7.5	7.1	7.3
9	8.9	8.7	8.8	6.6	6.0	6.4	6.9	6.5	6.7	7.5	7.0	7.3
10	---	---	---	6.5	5.9	6.2	7.0	6.8	6.9	8.1	7.4	7.7
11	---	---	---	6.5	5.9	6.2	7.3	6.6	6.9	7.9	7.7	7.8
12	9.8	9.6	9.7	6.5	5.9	6.3	7.3	6.8	7.0	7.8	7.6	7.7
13	---	---	---	7.1	6.0	6.5	7.1	7.0	7.1	7.8	7.5	7.7
14	---	---	---	6.4	5.9	6.2	7.0	6.2	6.5	7.7	7.3	7.5
15	---	---	---	6.9	6.2	6.5	6.4	6.2	6.3	7.8	7.5	7.6
16	---	---	---	7.1	6.5	6.8	6.5	6.2	6.3	8.0	7.6	7.8
17	9.1	8.9	9.0	7.2	6.5	7.0	6.7	6.3	6.5	8.0	7.8	7.9
18	8.8	8.7	8.7	7.1	6.5	6.9	6.9	6.3	6.7	8.0	7.7	7.8
19	8.7	8.4	8.5	6.8	6.6	6.7	7.0	6.2	6.7	7.8	7.5	7.6
20	8.4	8.1	8.2	6.7	6.5	6.6	6.7	6.0	6.5	7.6	7.2	7.4
21	8.1	7.7	7.9	6.9	6.5	6.6	6.6	5.9	6.3	8.0	6.9	7.6
22	7.9	7.3	7.5	6.6	6.0	6.3	6.7	6.0	6.3	7.9	7.6	7.8
23	7.5	7.0	7.3	6.4	6.0	6.2	6.8	6.5	6.6	7.7	7.4	7.5
24	7.5	7.1	7.3	6.4	5.8	6.1	7.3	6.4	6.8	7.4	6.7	7.1
25	7.4	7.0	7.2	6.7	6.3	6.6	7.5	7.2	7.3	6.9	6.7	6.8
26	7.5	6.9	7.2	6.6	6.4	6.5	7.4	7.3	7.4	6.9	6.7	6.7
27	7.4	7.0	7.2	7.0	6.6	6.8	7.4	7.2	7.3	7.3	6.8	7.1
28	7.9	7.4	7.6	7.0	6.5	6.7	7.3	7.1	7.2	7.8	7.3	7.6
29	8.1	7.8	7.9	6.9	6.5	6.7	7.3	6.8	7.2	7.9	7.5	7.7
30	8.1	7.9	8.0	7.0	6.4	6.7	7.3	7.2	7.3	8.0	7.6	7.8
31	---	---	---	6.7	6.1	6.5	7.3	7.1	7.2	---	---	---
MONTH	**9.8**	**6.9**	**8.1**	**8.0**	**5.8**	**6.6**	**7.5**	**5.3**	**6.7**	**8.1**	**6.7**	**7.5**
PERIOD	**9.8**	**5.3**	**7.1**		**Days < 5.0 mg/L**		**0**					



GULF ISLAND POND 35-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

OXYGEN DISSOLVED, PERCENT SATURATION, 2006

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	87	84	86	90	87	89	80	72	77	81	77	79
2	87	84	86	90	88	89	76	68	70	81	78	80
3	---	---	---	89	85	87	69	65	67	82	79	81
4	---	---	---	88	85	87	71	63	68	82	77	79
5	---	---	---	85	83	85	73	66	70	82	77	79
6	88	83	85	86	79	82	78	68	74	82	77	80
7	90	87	89	82	79	81	82	77	80	82	77	80
8	90	89	89	82	74	79	86	77	82	81	76	79
9	90	88	89	77	70	74	82	77	80	81	76	79
10	---	---	---	76	68	72	83	81	82	89	81	84
11	---	---	---	76	69	72	86	78	81	87	85	86
12	96	94	95	76	70	73	86	80	83	86	83	84
13	---	---	---	85	70	77	84	82	83	87	82	84
14	---	---	---	76	70	73	82	72	76	84	80	82
15	---	---	---	82	74	78	73	71	72	84	81	82
16	---	---	---	85	78	82	74	71	72	86	82	84
17	94	93	94	87	79	84	77	72	74	86	84	85
18	93	92	93	87	79	84	78	72	76	86	83	84
19	93	91	92	83	81	82	79	71	76	84	80	82
20	92	88	90	83	80	81	77	69	74	83	78	80
21	91	86	89	86	81	83	76	67	72	88	75	83
22	90	83	86	82	75	79	77	69	72	87	83	85
23	86	80	83	80	75	77	78	75	76	84	80	82
24	85	81	83	79	71	75	83	74	78	80	72	77
25	83	79	81	81	77	79	84	82	83	74	72	73
26	84	77	81	80	77	78	83	82	82	73	71	71
27	85	80	82	84	79	82	82	80	81	77	72	74
28	90	84	88	85	78	81	81	79	80	80	76	79
29	91	89	90	84	78	81	80	75	79	81	78	80
30	91	88	90	85	78	82	81	78	80	82	78	80
31	---	---	---	81	74	79	80	77	78	---	---	---
MONTH	**96**	**77**	**88**	**90**	**68**	**80**	**86**	**63**	**77**	**89**	**71**	**81**
PERIOD	**96**	**63**	**81**	**Days < 60% Saturation**			**0**					



GULF ISLAND POND 5O-FT LEVEL 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

LOCATION.-- Lat. 44° 09’ 21”, Long 70° 12’ 28”, Androscoggin County, 500-ft from left shore, 0.2 miles above Gulf Island Dam, 7.7 miles downstream from Turner Bridge and 4.6 miles below the oxygen-injection system in Greene.

DRAINAGE AREA.-- 2,840 mi ².

PERIOD OF RECORD.-- Seasonal June to September.

PERIOD OF DAILY RECORD.--
Water Temperature: July 1998 to current year.
Dissolved Oxygen:. July 1998 to current year.
Oxygen Dissolved: July 1998 to current year.

EXTREMES RECORDED FOR PERIOD OF DAILY RECORD.--
Water Temperature: Maximum, 26.4 °C, Aug. 14, 2001, July 22, 2006; minimum, 13.3 °C, June 1, 2004.
Dissolved Oxygen: Maximum, 10.5 mg/L, June 14, 2002; minimum, 2.9 mg/L, July 31, 2000, Aug. 17, 19, 2002
Oxygen Dissolved: Maximum, 101 % sat. Aug. 3, 1999; minimum, 32 % sat. July 31, 2000.

INSTRUMENTATION.-- Pontoon raft anchored in 75-ft water column with profiling monitor. Monitoring point located 50-ft below water surface. Electronic data-logger and solar power, real-time data retrieved by phone telemetry.

REMARKS.-- Monitor not operated during period October to May. Other interruptions in the record were due to malfunctions of the monitor.

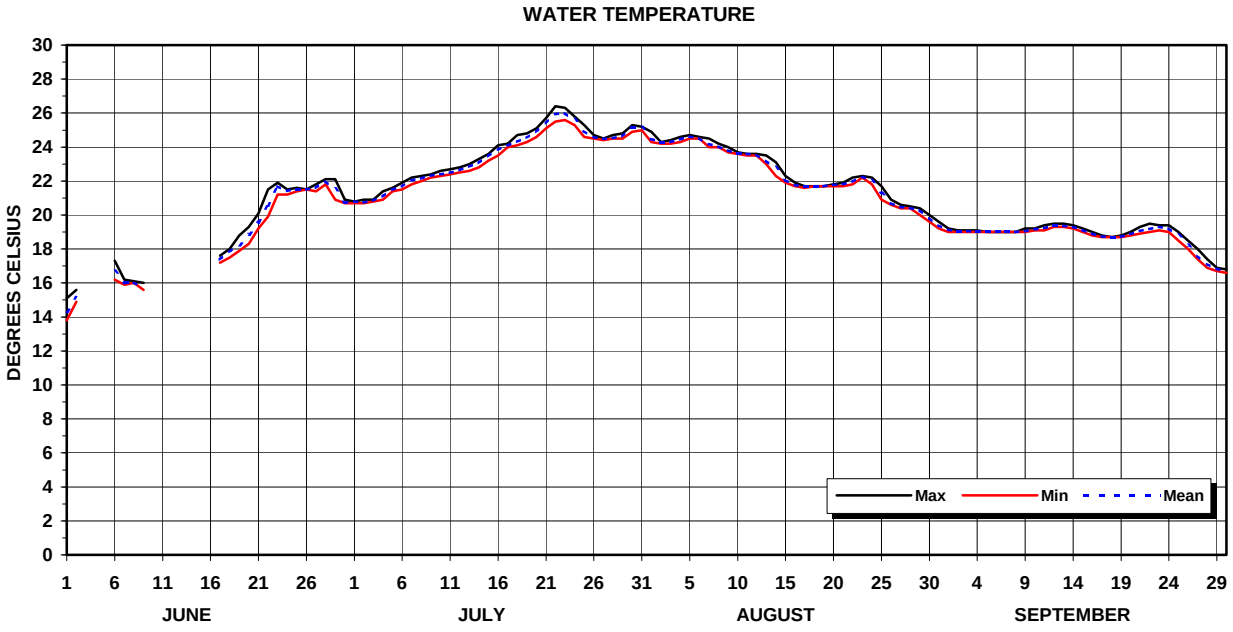
CURRENT YEAR, 2006

EXTREMES RECORDED.--
Water Temperature: Maximum, 26.4 °C, July 22; minimum, 13.8 °C, June 1.
Dissolved Oxygen: Maximum, 9.8 mg/L, June 12; minimum, 4.2 mg/L, July 14.
Oxygen Dissolved: Maximum, 95 % sat. June 12; minimum, 49 % sat. July 14.

GULF ISLAND POND 50-FT LEVEL 0.2 MI ABOVE GULF ISLAND POND NEAR LEWISTON, ME

WATER TEMPERATURE, DEGREES CELSIUS, 2006

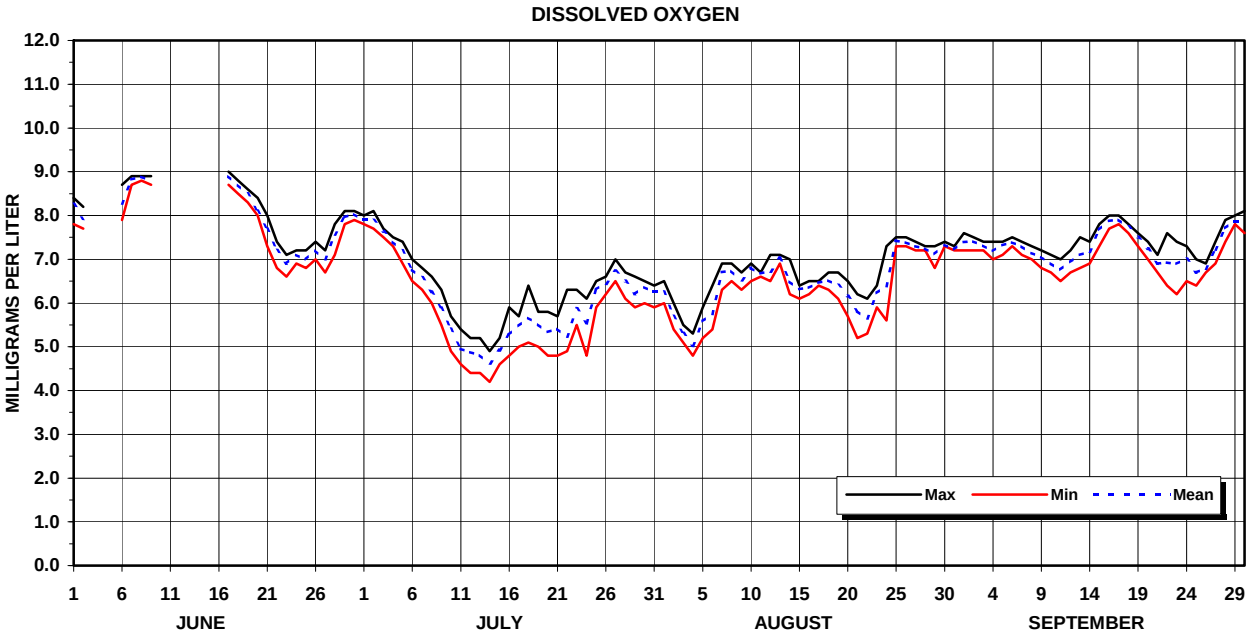
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.1	13.8	14.3	20.8	20.7	20.8	24.9	24.3	24.5	19.2	19.0	19.1
2	15.6	14.9	15.1	20.9	20.7	20.7	24.3	24.2	24.3	19.1	19.0	19.0
3	---	---	---	20.9	20.8	20.9	24.4	24.2	24.3	19.1	19.0	19.1
4	---	---	---	21.4	20.9	21.1	24.6	24.3	24.4	19.1	19.0	19.0
5	---	---	---	21.6	21.4	21.5	24.7	24.5	24.6	19.0	19.0	19.0
6	17.3	16.2	16.7	21.9	21.5	21.7	24.6	24.5	24.5	19.0	19.0	19.0
7	16.2	15.9	16.0	22.2	21.8	22.0	24.5	24.0	24.2	19.0	19.0	19.0
8	16.1	16.0	16.0	22.3	22.0	22.2	24.2	24.0	24.0	19.0	19.0	19.0
9	16.0	15.6	15.8	22.4	22.2	22.3	24.0	23.7	23.8	19.2	19.0	19.0
10	---	---	---	22.6	22.3	22.4	23.7	23.6	23.6	19.2	19.1	19.2
11	---	---	---	22.7	22.4	22.5	23.6	23.5	23.6	19.4	19.1	19.2
12	14.4	14.0	14.2	22.8	22.5	22.6	23.6	23.5	23.5	19.5	19.3	19.4
13	---	---	---	23.0	22.6	22.9	23.5	23.0	23.2	19.5	19.3	19.4
14	---	---	---	23.3	22.8	23.1	23.1	22.3	22.8	19.4	19.2	19.3
15	---	---	---	23.6	23.2	23.5	22.3	21.9	22.1	19.2	19.0	19.1
16	---	---	---	24.1	23.5	23.8	21.9	21.7	21.8	19.0	18.8	18.9
17	17.6	17.2	17.4	24.2	24.0	24.1	21.7	21.6	21.7	18.8	18.7	18.7
18	18.0	17.5	17.8	24.7	24.1	24.3	21.7	21.7	21.7	18.7	18.7	18.7
19	18.8	17.9	18.2	24.8	24.3	24.5	21.7	21.7	21.7	18.8	18.7	18.7
20	19.3	18.3	18.9	25.1	24.6	24.9	21.8	21.7	21.8	19.0	18.8	18.9
21	20.1	19.2	19.6	25.7	25.1	25.4	21.9	21.7	21.8	19.3	18.9	19.1
22	21.5	19.9	20.5	26.4	25.5	25.9	22.2	21.8	22.0	19.5	19.0	19.2
23	21.9	21.2	21.7	26.3	25.6	26.0	22.3	22.2	22.3	19.4	19.1	19.3
24	21.5	21.2	21.4	25.8	25.3	25.6	22.2	21.8	22.0	19.4	19.0	19.2
25	21.6	21.4	21.5	25.3	24.6	24.9	21.7	20.9	21.3	19.0	18.5	18.8
26	21.5	21.5	21.5	24.7	24.5	24.6	20.9	20.6	20.7	18.5	18.0	18.2
27	21.8	21.4	21.6	24.5	24.4	24.5	20.6	20.4	20.5	18.0	17.4	17.6
28	22.1	21.8	22.0	24.7	24.5	24.5	20.5	20.4	20.4	17.4	16.9	17.1
29	22.1	20.9	21.5	24.8	24.5	24.6	20.4	20.0	20.3	16.9	16.7	16.8
30	20.9	20.7	20.7	25.3	24.9	25.1	20.0	19.6	19.8	16.8	16.6	16.7
31	---	---	---	25.2	25.0	25.2	19.6	19.2	19.4	---	---	---
MONTH	**22.1**	**13.8**	**19.0**	**26.4**	**20.7**	**23.8**	**24.9**	**19.2**	**22.2**	**19.5**	**16.6**	**19.0**
PERIOD	**26.4**	**13.8**	**21.4**									



GULF ISLAND POND 50-FT LEVEL 0.2 MI ABOVE GULF ISLAND POND NEAR LEWISTON, ME

DISSOLVED OXYGEN MILLIGRAMS PER LITER, 2006

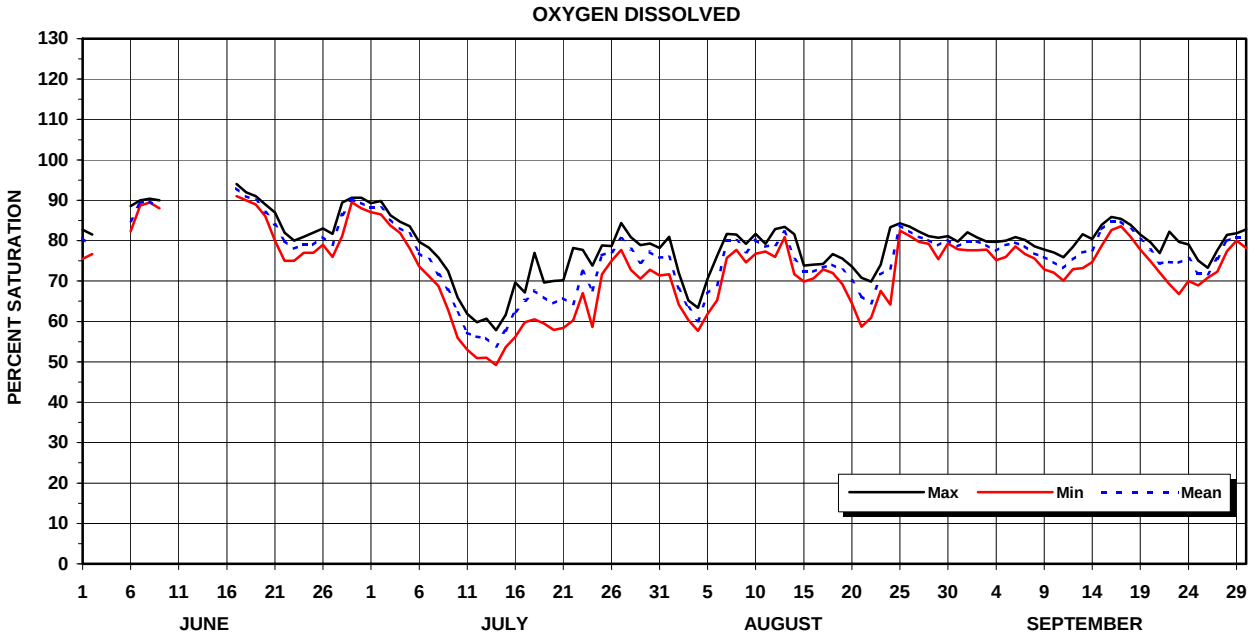
	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.4	7.8	8.3	8.0	7.8	7.9	6.5	6.0	6.3	7.6	7.2	7.4
2	8.2	7.7	7.9	8.1	7.7	7.9	6.0	5.4	5.7	7.5	7.2	7.4
3	---	---	---	7.7	7.5	7.6	5.5	5.1	5.3	7.4	7.2	7.3
4	---	---	---	7.5	7.3	7.4	5.3	4.8	5.0	7.4	7.0	7.2
5	---	---	---	7.4	6.9	7.2	5.9	5.2	5.6	7.4	7.1	7.3
6	8.7	7.9	8.3	7.0	6.5	6.8	6.4	5.4	5.7	7.5	7.3	7.4
7	8.9	8.7	8.8	6.8	6.3	6.6	6.9	6.3	6.7	7.4	7.1	7.3
8	8.9	8.8	8.9	6.6	6.0	6.3	6.9	6.5	6.7	7.3	7.0	7.1
9	8.9	8.7	8.8	6.3	5.5	5.9	6.7	6.3	6.5	7.2	6.8	7.0
10	---	---	---	5.7	4.9	5.4	6.9	6.5	6.8	7.1	6.7	6.9
11	---	---	---	5.4	4.6	5.0	6.7	6.6	6.7	7.0	6.5	6.8
12	9.8	9.6	9.7	5.2	4.4	4.9	7.1	6.5	6.7	7.2	6.7	6.9
13	---	---	---	5.2	4.4	4.8	7.1	6.9	7.0	7.5	6.8	7.1
14	---	---	---	4.9	4.2	4.6	7.0	6.2	6.5	7.4	6.9	7.2
15	---	---	---	5.2	4.6	4.9	6.4	6.1	6.3	7.8	7.3	7.7
16	---	---	---	5.9	4.8	5.3	6.5	6.2	6.3	8.0	7.7	7.9
17	9.0	8.7	8.9	5.7	5.0	5.5	6.5	6.4	6.5	8.0	7.8	7.9
18	8.8	8.5	8.7	6.4	5.1	5.7	6.7	6.3	6.5	7.8	7.6	7.7
19	8.6	8.3	8.5	5.8	5.0	5.5	6.7	6.1	6.4	7.6	7.3	7.5
20	8.4	8.0	8.1	5.8	4.8	5.3	6.5	5.7	6.2	7.4	7.0	7.2
21	8.0	7.3	7.7	5.7	4.8	5.4	6.2	5.2	5.8	7.1	6.7	6.9
22	7.4	6.8	7.2	6.3	4.9	5.2	6.1	5.3	5.6	7.6	6.4	6.9
23	7.1	6.6	6.9	6.3	5.5	5.9	6.4	5.9	6.2	7.4	6.2	6.9
24	7.2	6.9	7.1	6.1	4.8	5.5	7.3	5.6	6.4	7.3	6.5	7.0
25	7.2	6.8	7.0	6.5	5.9	6.3	7.5	7.3	7.4	7.0	6.4	6.7
26	7.4	7.0	7.2	6.6	6.2	6.4	7.5	7.3	7.4	6.9	6.7	6.8
27	7.2	6.7	7.0	7.0	6.5	6.7	7.4	7.2	7.3	7.4	6.9	7.2
28	7.8	7.1	7.6	6.7	6.1	6.5	7.3	7.2	7.3	7.9	7.4	7.7
29	8.1	7.8	8.0	6.6	5.9	6.2	7.3	6.8	7.1	8.0	7.8	7.9
30	8.1	7.9	8.0	6.5	6.0	6.4	7.4	7.3	7.3	8.1	7.6	7.9
31	---	---	---	6.4	5.9	6.3	7.3	7.2	7.2	---	---	---
MONTH	**9.8**	**6.6**	**7.4**	**8.1**	**4.2**	**6.0**	**7.5**	**4.8**	**6.5**	**8.1**	**6.2**	**7.3**
PERIOD	**9.8**	**4.2**	**6.9**	**Days < 5.0 mg/L**		**12**						



GULF ISLAND POND 50-FT LEVEL 0.2 MI ABOVE GULF ISLAND POND NEAR LEWISTON, ME

OXYGEN DISSOLVED PERCENT SATURATION, 2006

	JUNE			JULY			AUGUST			SEPTEMBER		
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	83	76	81	89	87	88	81	72	76	82	78	80
2	82	77	79	90	87	88	72	64	68	81	78	80
3	---	---	---	86	84	85	65	60	63	80	78	79
4	---	---	---	85	82	83	63	58	60	80	75	77
5	---	---	---	84	78	82	71	62	67	80	76	79
6	89	82	85	80	74	77	76	65	69	81	79	80
7	90	89	89	78	71	75	82	76	80	80	77	79
8	90	89	90	76	69	72	82	78	80	79	76	77
9	90	88	88	73	63	68	79	75	77	78	73	76
10	---	---	---	66	56	62	82	77	80	77	72	75
11	---	---	---	62	53	57	79	77	79	76	70	73
12	95	94	95	60	51	56	83	76	79	79	73	75
13	---	---	---	61	51	56	83	81	82	82	73	77
14	---	---	---	58	49	54	82	72	75	80	75	78
15	---	---	---	62	54	58	74	70	72	84	79	83
16	---	---	---	70	56	62	74	71	72	86	83	85
17	94	91	93	67	60	65	74	73	73	85	84	85
18	92	90	91	77	61	68	77	72	74	84	81	83
19	91	89	90	70	60	66	76	69	73	82	78	80
20	89	86	87	70	58	65	74	65	70	80	75	78
21	87	80	84	70	58	66	71	59	66	77	72	74
22	82	75	80	78	60	64	70	61	64	82	69	75
23	80	75	78	78	67	72	74	68	72	80	67	75
24	81	77	79	74	59	68	83	64	73	79	70	76
25	82	77	79	79	72	76	84	83	84	75	69	72
26	83	79	81	79	75	77	84	81	82	73	71	72
27	82	76	79	84	78	81	82	80	81	78	72	76
28	89	81	87	81	73	78	81	79	80	81	77	80
29	91	90	90	79	71	75	81	75	79	82	80	81
30	91	88	89	79	73	77	81	79	80	83	78	81
31	---	---	---	78	71	76	80	78	79	---	---	---
MONTH	**95**	**75**	**87**	**90**	**49**	**72**	**84**	**58**	**76**	**86**	**67**	**78**
PERIOD	**95**	**49**	**78**	**Days < 60% Saturation**			**12**					



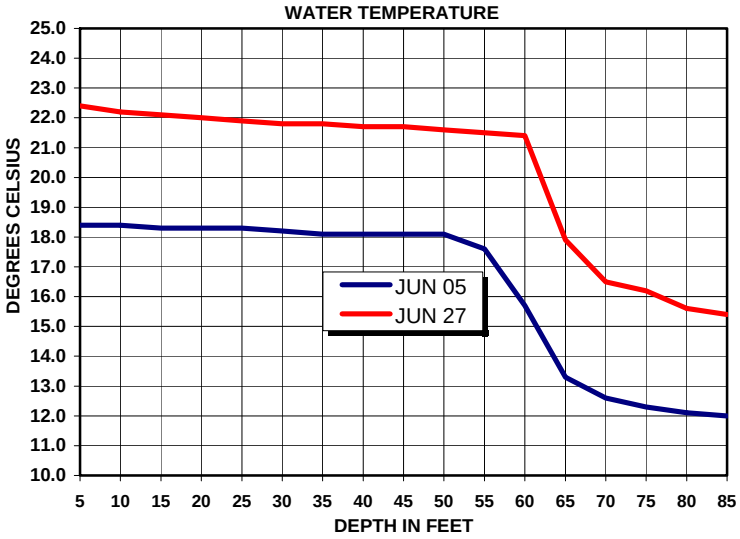
GULF ISLAND POND DEEPHOLE 0.6 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

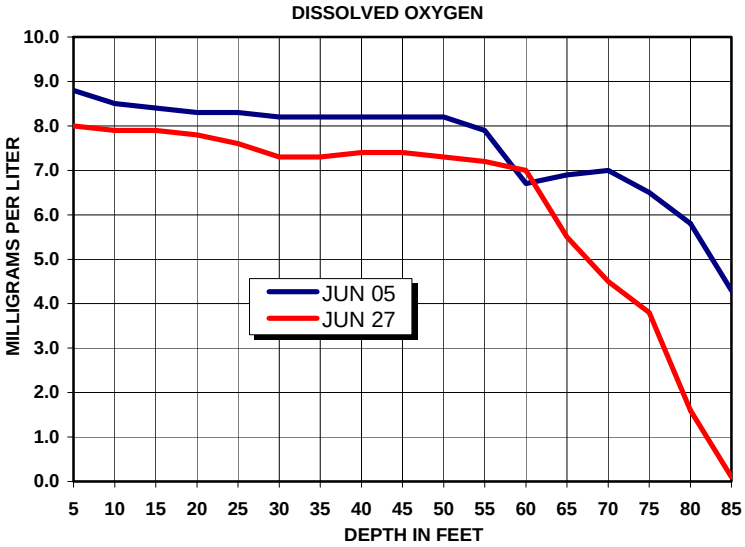
WATER TEMPERATURE (DEG C), 2006

DEPTH (Ft)	JUN 05 1145 (hrs)	JUN 27 1015 (hrs)
5	18.4	22.4
10	18.4	22.2
15	18.3	22.1
20	18.3	22.0
25	18.3	21.9
30	18.2	21.8
35	18.1	21.8
40	18.1	21.7
45	18.1	21.7
50	18.1	21.6
55	17.6	21.5
60	15.7	21.4
65	13.3	17.9
70	12.6	16.5
75	12.3	16.2
80	12.1	15.6
85	12.0	15.4
90		
BTM	86-(Ft)	86-(Ft)

DISSOLVED OXYGEN (MG/L), 2006

DEPTH (Ft)	JUN 05 1145 (hrs)	JUN 27 1015 (hrs)
5	8.8	8.0
10	8.5	7.9
15	8.4	7.9
20	8.3	7.8
25	8.3	7.6
30	8.2	7.3
35	8.2	7.3
40	8.2	7.4
45	8.2	7.4
50	8.2	7.3
55	7.9	7.2
60	6.7	7.0
65	6.9	5.5
70	7.0	4.5
75	6.5	3.8
80	5.8	1.6
85	4.3	0.1
90		
BTM	86-(Ft)	86-(Ft)

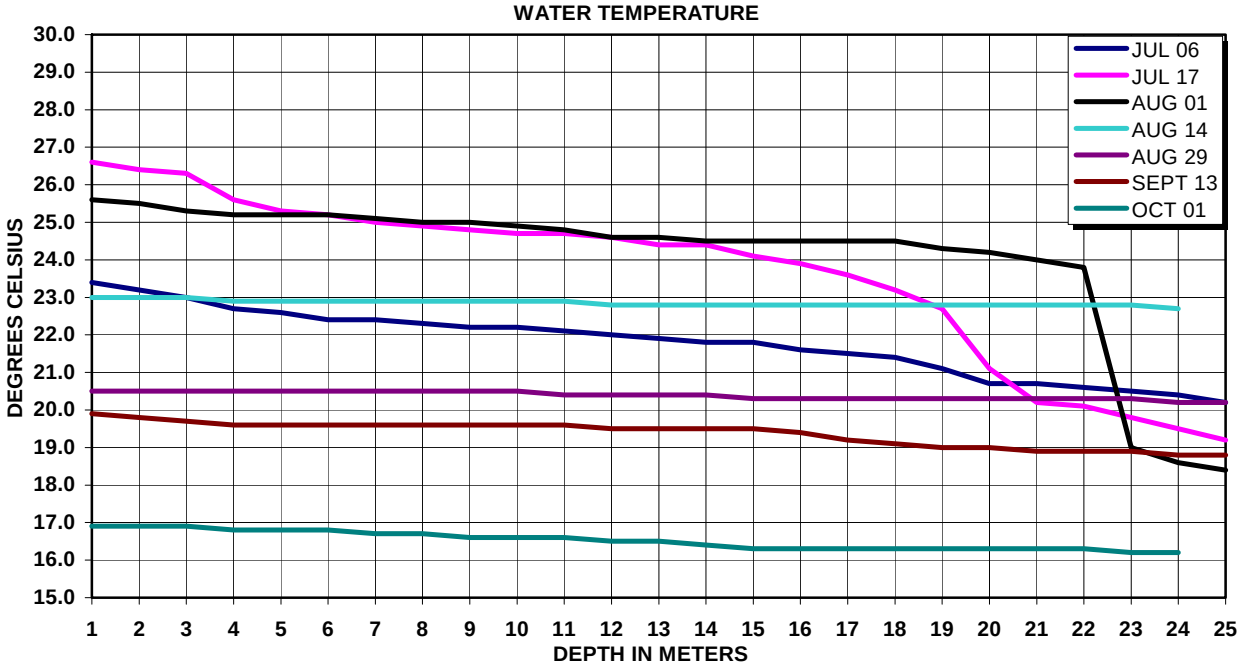




GULF ISLAND POND DEEPHOLE 0.6 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

WATER TEMPERATURE (DEG C), 2006

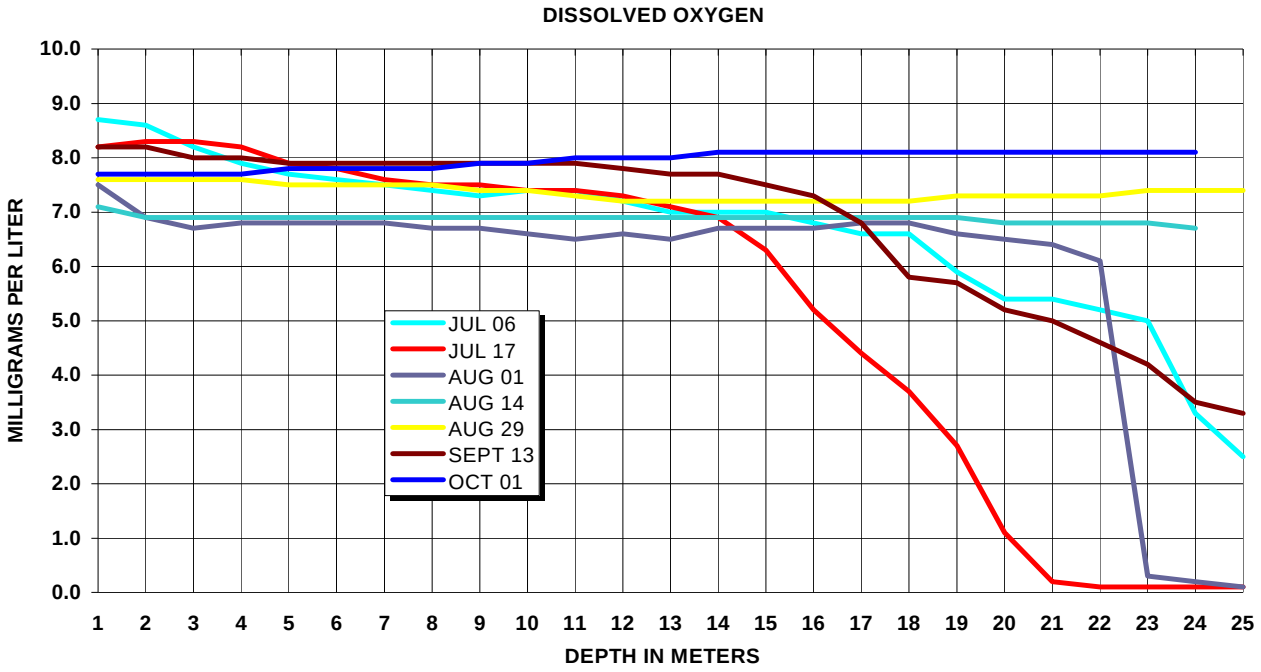
DEPTH	JUL 06	JUL 17	AUG 01	AUG 14	AUG 29	SEPT 13	OCT 01
(M)	1130 (hrs)	0900 (hrs)	0830 (hrs)	0930 (hrs)	1000 (hrs)	1145 (hrs)	0845 (hrs)
1.0	23.4	26.6	25.6	23.0	20.5	19.9	16.9
2.0	23.2	26.4	25.5	23.0	20.5	19.8	16.9
3.0	23.0	26.3	25.3	23.0	20.5	19.7	16.9
4.0	22.7	25.6	25.2	22.9	20.5	19.6	16.8
5.0	22.6	25.3	25.2	22.9	20.5	19.6	16.8
6.0	22.4	25.2	25.2	22.9	20.5	19.6	16.8
7.0	22.4	25.0	25.1	22.9	20.5	19.6	16.7
8.0	22.3	24.9	25.0	22.9	20.5	19.6	16.7
9.0	22.2	24.8	25.0	22.9	20.5	19.6	16.6
10.0	22.2	24.7	24.9	22.9	20.5	19.6	16.6
11.0	22.1	24.7	24.8	22.9	20.4	19.6	16.6
12.0	22.0	24.6	24.6	22.8	20.4	19.5	16.5
13.0	21.9	24.4	24.6	22.8	20.4	19.5	16.5
14.0	21.8	24.4	24.5	22.8	20.4	19.5	16.4
15.0	21.8	24.1	24.5	22.8	20.3	19.5	16.3
16.0	21.6	23.9	24.5	22.8	20.3	19.4	16.3
17.0	21.5	23.6	24.5	22.8	20.3	19.2	16.3
18.0	21.4	23.2	24.5	22.8	20.3	19.1	16.3
19.0	21.1	22.7	24.3	22.8	20.3	19.0	16.3
20.0	20.7	21.1	24.2	22.8	20.3	19.0	16.3
21.0	20.7	20.2	24.0	22.8	20.3	18.9	16.3
22.0	20.6	20.1	23.8	22.8	20.3	18.9	16.3
23.0	20.5	19.8	19.0	22.8	20.3	18.9	16.2
24.0	20.4	19.5	18.6	22.7	20.2	18.8	16.2
25.0	20.2	19.2	18.4		20.2	18.8	
BTM	26.0-(M)	25.7-(M)	26.0-(M)	25.1-(M)	25.5-(M)	26.0-(M)	24.5-(M)



GULF ISLAND POND DEEPHOLE 0.6 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

DISSOLVED OXYGED (MG/L) 2006

DEPTH	JUL 06	JUL 17	AUG 01	AUG 14	AUG 29	SEPT 13	OCT 01
(M)	1130 (hrs)	0900 (hrs)	0830 (hrs)	0930 (hrs)	1000 (hrs)	1145 (hrs)	0845 (hrs)
1.0	8.7	8.2	7.5	7.1	7.6	8.2	7.7
2.0	8.6	8.3	6.9	6.9	7.6	8.2	7.7
3.0	8.2	8.3	6.7	6.9	7.6	8.0	7.7
4.0	7.9	8.2	6.8	6.9	7.6	8.0	7.7
5.0	7.7	7.9	6.8	6.9	7.5	7.9	7.8
6.0	7.6	7.8	6.8	6.9	7.5	7.9	7.8
7.0	7.5	7.6	6.8	6.9	7.5	7.9	7.8
8.0	7.4	7.5	6.7	6.9	7.5	7.9	7.8
9.0	7.3	7.5	6.7	6.9	7.4	7.9	7.9
10.0	7.4	7.4	6.6	6.9	7.4	7.9	7.9
11.0	7.4	7.4	6.5	6.9	7.3	7.9	8.0
12.0	7.2	7.3	6.6	6.9	7.2	7.8	8.0
13.0	7.0	7.1	6.5	6.9	7.2	7.7	8.0
14.0	7.0	6.9	6.7	6.9	7.2	7.7	8.1
15.0	7.0	6.3	6.7	6.9	7.2	7.5	8.1
16.0	6.8	5.2	6.7	6.9	7.2	7.3	8.1
17.0	6.6	4.4	6.8	6.9	7.2	6.8	8.1
18.0	6.6	3.7	6.8	6.9	7.2	5.8	8.1
19.0	5.9	2.7	6.6	6.9	7.3	5.7	8.1
20.0	5.4	1.1	6.5	6.8	7.3	5.2	8.1
21.0	5.4	0.2	6.4	6.8	7.3	5.0	8.1
22.0	5.2	0.1	6.1	6.8	7.3	4.6	8.1
23.0	5.0	0.1	0.3	6.8	7.4	4.2	8.1
24.0	3.3	0.1	0.2	6.7	7.4	3.5	8.1
25.0	2.5	0.1	0.1		7.4	3.3	
BTM	26.0-(M)	25.7-(M)	26.0-(M)	25.1-(M)	25.5-(M)	26.0-(M)	24.5-(M)



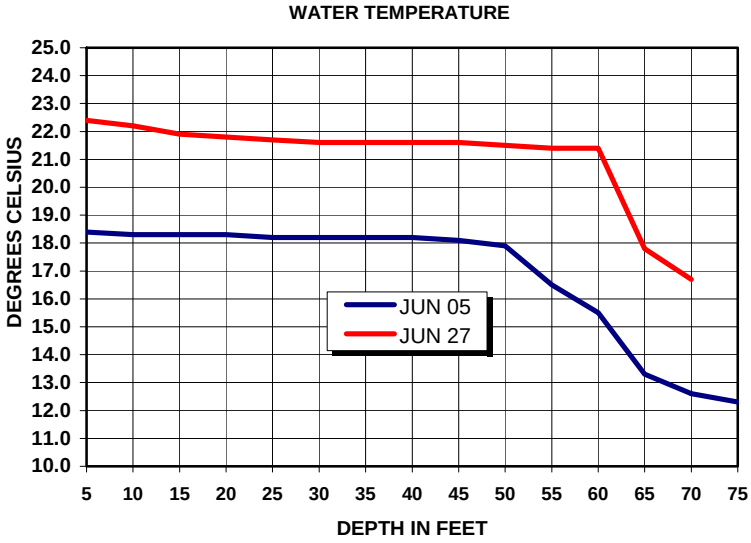
GULF ISLAND POND PROFILING RAFT 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

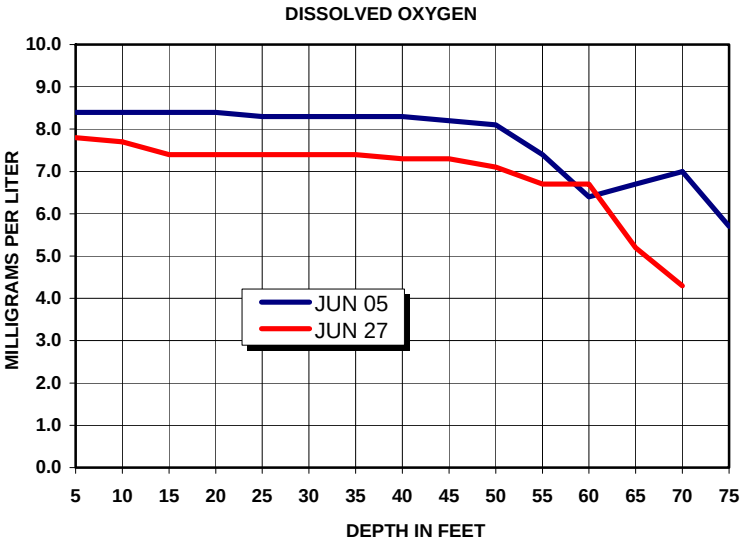
WATER TEMPERATURE (DEG C), 2006

DEPTH (Ft)	JUN 05 1100 (hrs)	JUN 27 0845 (hrs)
5	18.4	22.4
10	18.3	22.2
15	18.3	21.9
20	18.3	21.8
25	18.2	21.7
30	18.2	21.6
35	18.2	21.6
40	18.2	21.6
45	18.1	21.6
50	17.9	21.5
55	16.5	21.4
60	15.5	21.4
65	13.3	17.8
70	12.6	16.7
75	12.3	
80		
BTM	76-(Ft)	73-(Ft)

DISSOLVED OXYGEN (MG/L), 2006

DEPTH (Ft)	JUN 05 1100 (hrs)	JUN 27 0845 (hrs)
5	8.4	7.8
10	8.4	7.7
15	8.4	7.4
20	8.4	7.4
25	8.3	7.4
30	8.3	7.4
35	8.3	7.4
40	8.3	7.3
45	8.2	7.3
50	8.1	7.1
55	7.4	6.7
60	6.4	6.7
65	6.7	5.2
70	7.0	4.3
75	5.7	
80		
BTM	76-(Ft)	73-(Ft)

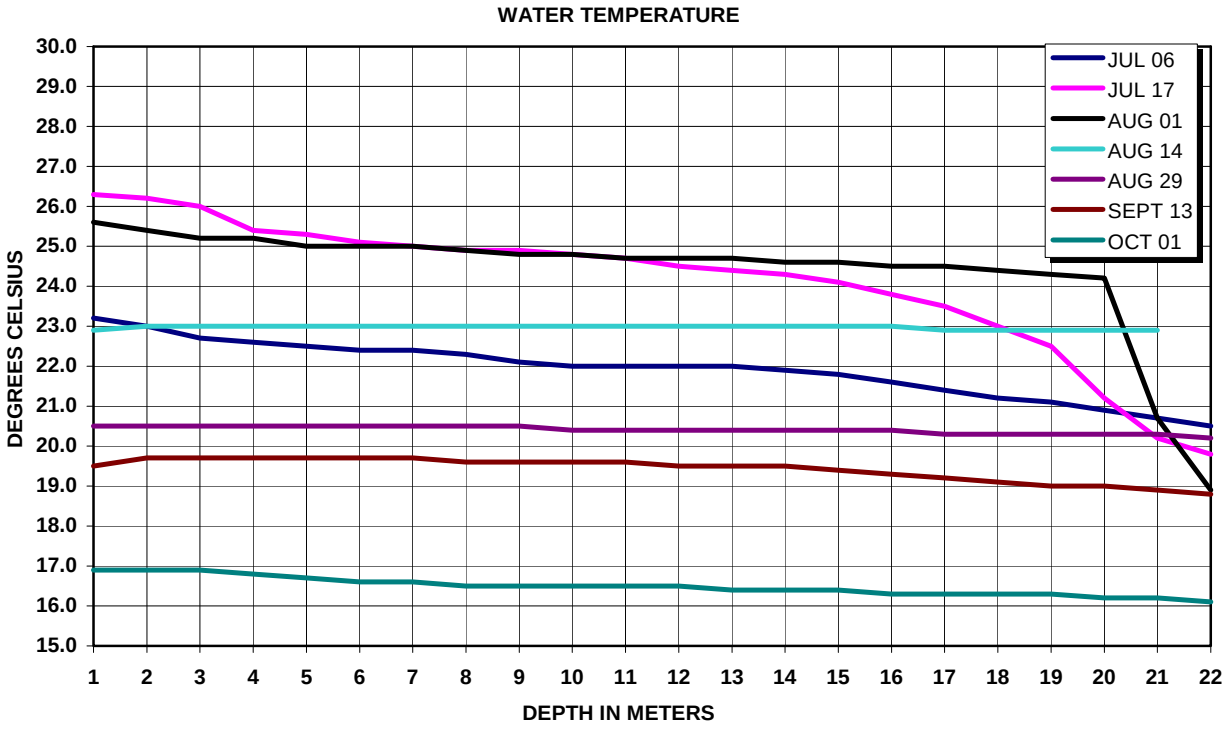




GULF ISLAND POND PROFILING RAFT 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

WATER TEMPERATURE (DEG C), 2006

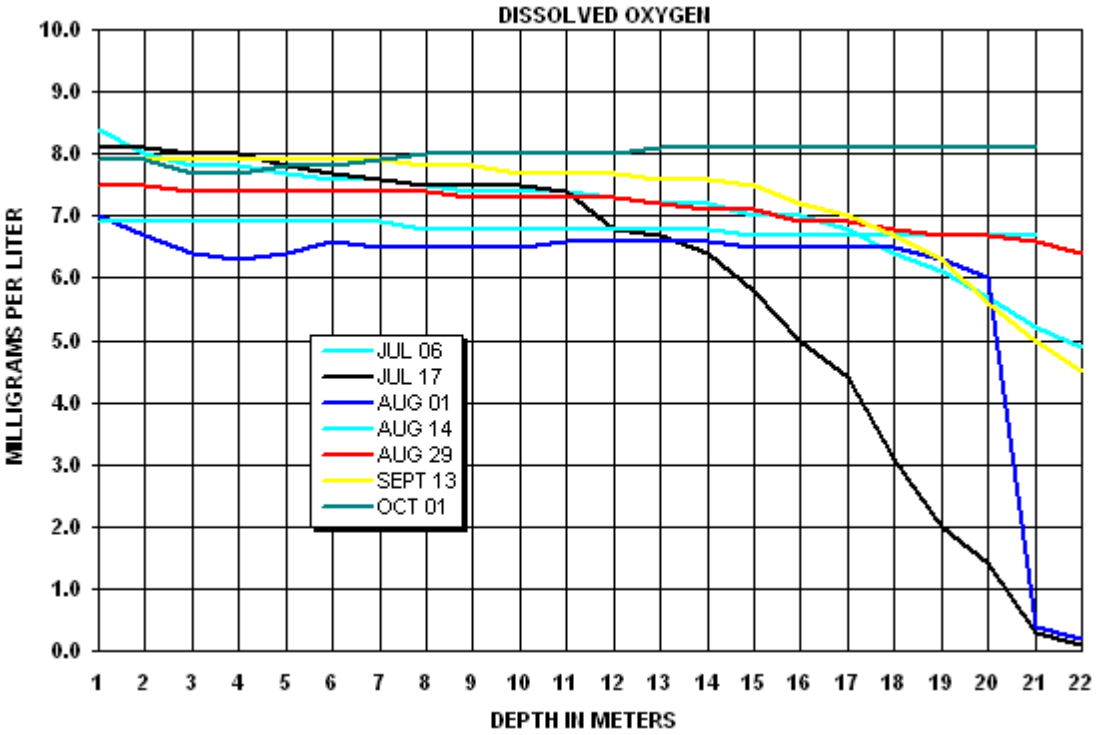
DEPTH (M)	JUL 06 (1000 hrs)	JUL 17 (0700 hrs)	AUG 01 (0630 hrs)	AUG 14 (0800 hrs)	AUG 29 (1030 hrs)	SEPT 13 (0800 hrs)	OCT 01 (1000 hrs)
1.0	23.2	26.3	25.6	22.9	20.5	19.5	16.9
2.0	23.0	26.2	25.4	23.0	20.5	19.7	16.9
3.0	22.7	26.0	25.2	23.0	20.5	19.7	16.9
4.0	22.6	25.4	25.2	23.0	20.5	19.7	16.8
5.0	22.5	25.3	25.0	23.0	20.5	19.7	16.7
6.0	22.4	25.1	25.0	23.0	20.5	19.7	16.6
7.0	22.4	25.0	25.0	23.0	20.5	19.7	16.6
8.0	22.3	24.9	24.9	23.0	20.5	19.6	16.5
9.0	22.1	24.9	24.8	23.0	20.5	19.6	16.5
10.0	22.0	24.8	24.8	23.0	20.4	19.6	16.5
11.0	22.0	24.7	24.7	23.0	20.4	19.6	16.5
12.0	22.0	24.5	24.7	23.0	20.4	19.5	16.5
13.0	22.0	24.4	24.7	23.0	20.4	19.5	16.4
14.0	21.9	24.3	24.6	23.0	20.4	19.5	16.4
15.0	21.8	24.1	24.6	23.0	20.4	19.4	16.4
16.0	21.6	23.8	24.5	23.0	20.4	19.3	16.3
17.0	21.4	23.5	24.5	22.9	20.3	19.2	16.3
18.0	21.2	23.0	24.4	22.9	20.3	19.1	16.3
19.0	21.1	22.5	24.3	22.9	20.3	19.0	16.3
20.0	20.9	21.2	24.2	22.9	20.3	19.0	16.2
21.0	20.7	20.2	20.7	22.9	20.3	18.9	16.2
22.0	20.5	19.8	18.9		20.2	18.8	16.1
BTM	23.1-(M)	22.7-(M)	22.4-(M)	22.0-(M)	23.0-(M)	22.9-(M)	22.8-(M)



GULF ISLAND POND PROFILING RAFT 0.2 MI ABOVE GULF ISLAND DAM NEAR LEWISTON, ME

DISSOLVED OXYGED (MG/L) 2006

DEPTH (M)	JUL 06 1000 (hrs)	JUL 17 0700 (hrs)	AUG 01 0630 (hrs)	AUG 14 0800 (hrs)	AUG 29 1030 (hrs)	SEPT 13 0800 (hrs)	OCT 01 1000 (hrs)
1.0	8.4	8.1	7.0	6.9	7.5	7.9	7.9
2.0	8.0	8.1	6.7	6.9	7.5	7.9	7.9
3.0	7.8	8.0	6.4	6.9	7.4	7.9	7.7
4.0	7.8	8.0	6.3	6.9	7.4	7.9	7.7
5.0	7.7	7.8	6.4	6.9	7.4	7.9	7.8
6.0	7.6	7.7	6.6	6.9	7.4	7.9	7.8
7.0	7.6	7.6	6.5	6.9	7.4	7.9	7.9
8.0	7.5	7.5	6.5	6.8	7.4	7.8	8.0
9.0	7.4	7.5	6.5	6.8	7.3	7.8	8.0
10.0	7.4	7.5	6.5	6.8	7.3	7.7	8.0
11.0	7.4	7.4	6.6	6.8	7.3	7.7	8.0
12.0	7.3	6.8	6.6	6.8	7.3	7.7	8.0
13.0	7.2	6.7	6.6	6.8	7.2	7.6	8.1
14.0	7.2	6.4	6.6	6.8	7.1	7.6	8.1
15.0	7.0	5.8	6.5	6.7	7.1	7.5	8.1
16.0	7.0	5.0	6.5	6.7	6.9	7.2	8.1
17.0	6.8	4.4	6.5	6.7	6.9	7.0	8.1
18.0	6.4	3.1	6.5	6.7	6.8	6.7	8.1
19.0	6.1	2.0	6.3	6.7	6.7	6.3	8.1
20.0	5.7	1.4	6.0	6.7	6.7	5.6	8.1
21.0	5.2	0.3	0.4	6.7	6.6	5.0	8.1
22.0	4.9	0.1	0.2		6.4	4.5	
23.0							
24.0							
25.0							
BTM	23.1-(M)	22.7-(M)	22.4-(M)	22.0-(M)	23.0-(M)	22.9-(M)	22.8-(M)


DISSOLVED OXYGEN
MILLIGRAMS PER LITER
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
DEPTH IN METERS
JUL 06
JUL 17
AUG 01
AUG 14
AUG 29
SEPT 13
OCT 01