

Lake Lacawac, Bruce R. Hargreaves, Lehigh University (brho@lehigh.edu, http://www.lehigh.edu/~brho)

17 April 2011; platform moved to lake center, 1-2pm

The water level sensor (referenced to dock) settles for several days after moving platform to lake center and thus underestimates water level during this period.

Adjusted Tw sensors 13Nov07 based on comparison of depths and vs PUV & YSI sonde profiles (note that Tw at 11.3m matches PUV Tw at 12.5, probably within sediment boundary layer)

Tw12 adjusted to match others on bottom after moved to dock

H310 sensor depth & Lake level are based on differential pressure

sensor with ca 0.1mm resolution & vertical position referenced to bottom of lake.

Sensor PSIG converted to depth using density of water at 40C (1.43321 ps/m)

Lake level is referenced also to lower frame of dock at SE corner (2003-May2005)

(Actual water level at dock varies seasonally with density of water column and hourly from precip, runoff, evaporation, seepage & outflow. Outflow also varies with status of beaver dam)

		5280 ft/mile		1609.3 m/mile																																	
		Tair avg F	Tair max	Tair min	Rain-in	WS-mph	WS Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max	WS-Min	WS-Max
Month	sum	99.9	86.8	38.3	3.89	4.3	33																														
month	(All)	10.6	15.5	30.5	3.5	82.9	98.7	1.9	14.8	190.9	95.2	963.7	549971893	1145	17.9	17.8	17.6	15.9	12.1	9.3	8.3	7.3	6.2	5.8	5.7	9.8	110.8	98.7	26.7	12.5	19.7	26.7					

		Data		Tair Min-		Rain-		WS Max		WS DIR-		Sum PAR		Sum Rad		Sum Evap		Sum Lake		Sum Seepage		Sum Terrestrial		H310 depth-m		Lakelevel-cumul. rain-		Batt min-V		RH% CR10		RH% MUX	
		Date	Tair avg-C	Tair Hi-C	Tair Lo-C	RHair-%	Rain-mm	WS-m/s	WS Max	WS Min	WS Dir	Barom-mb	Sum Rad J/m2	Sum Rad Mol/m2	Sum Evap Tw 0.1m	Sum Evap Tw 0.5m	Sum Evap Tw 1m	Sum Evap Tw 2m	Sum Evap Tw 3m	Sum Evap Tw 4m	Sum Evap Tw 5m	Sum Evap Tw 6m	Sum Evap Tw 8m	Sum Evap Tw 10m	Sum Evap Tw 12m	H310 depth-m (40C)	Lakelevel-mm (40C)	cumul. rain-mm	Batt min-V	RH% CR10 enc	RH% MUX enc		
ND	100%	5/1/2011	121	12.7	19.5	3.5	58.7	0.0	1.4	5.9	199	972.3	20513710	41	15.06	14.97	14.71	12.77	8.99	8.29	8.07	7.33	6.00	5.4	5.30	10.2	120.8	0.000	12.6	13.4	18.1		
ND	100%	5/2/2011	122	13.6	17.9	10.0	79.8	0.0	2.0	5.9	165	970.1	19862079	26	15.15	15.19	15.16	12.94	9.07	8.30	8.04	7.34	5.97	5.5	5.34	10.2	116.3	0.000	12.6	13.6	19.2		
ND	100%	5/3/2011	123	18.1	23.7	13.0	82.3	6.3	2.2	10.5	165	965.4	19337692	41	16.22	16.24	16.15	13.22	9.16	8.33	8.05	7.32	6.00	5.5	5.37	9.9	115.9	6.300	12.6	16.9	22.8		
LC	100%	5/4/2011	124	7.2	14.8	4.4	93.9	12.1	3.0	8.8	317	964.6	5692089	13	15.76	15.87	15.99	13.82	9.38	8.39	8.05	7.33	6.01	5.7	5.44	9.7	134.8	18.400	12.6	14.2	28.2		
LC	100%	5/5/2011	125	8.7	13.3	4.6	63.0	0.0	4.0	13.1	316	963.7	27371043	55	13.93	14.03	14.13	13.97	9.98	8.49	8.05	7.32	6.02	5.6	5.48	9.7	140.5	18.400	12.5	15.6	20.4		
LC	100%	5/6/2011	126	11.1	17.6	4.5	52.3	0.0	2.1	8.0	237	961.3	24450612	30	13.99	14.04	14.10	13.62	11.22	8.63	8.08	7.34	6.03	5.7	5.48	9.7	130.2	18.400	12.6	13.7	18.9		
LC	100%	5/7/2011	127	11.8	15.8	7.7	72.1	0.7	1.9	8.3	277	960.1	18056928	37	14.45	14.53	14.59	14.01	11.36	8.65	8.08	7.29	6.05	5.7	5.50	9.6	94.7	19.100	12.6	13.4	18.8		
LC	100%	5/8/2011	128	11.8	17.1	3.9	69.4	0.0	1.8	7.0	166	962.1	21632807	44	14.88	14.88	14.94	14.19	11.43	8.68	8.07	7.26	6.08	5.8	5.53	9.6	78.8	19.100	12.6	13.6	18.9		
LC	100%	5/9/2011	129	12.4	17.4	6.1	63.1	0.0	2.8	11.1	164	964.4	27444111	56	15.25	15.32	15.42	15.04	11.57	8.74	8.06	7.26	6.07	5.8	5.56	9.6	69.5	19.100	12.6	13.3	19.7		
LC	100%	5/10/2011	130	13.3	18.3	5.3	55.6	0.0	1.8	7.1	205	964.9	27811038	56	15.95	15.93	15.95	15.19	11.86	8.86	8.09	7.27	6.09	5.8	5.59	9.7	62.9	19.100	12.6	13.0	19.3		
LC	100%	5/11/2011	131	13.2	12.2	5.3	74.0	0.0	1.3	6.5	163	966.9	40651582	83	17.21	17.04	16.57	15.36	11.96	8.91	8.10	7.28	6.11	5.7	5.62	9.7	60.8	19.100	12.6	13.2	18.8		
LC	100%	5/12/2011	132	17.0	24.1	8.9	68.8	0.0	1.3	5.3	166	965.3	27193842	56	19.46	18.26	17.48	15.59	12.08	9.06	8.16	7.25	6.14	5.8	5.68	9.7	61.0	19.100	12.6	14.4	21.6		
LC	100%	5/13/2011	133	13.6	17.4	9.9	84.4	0.0	2.2	6.4	179	961.6	22888321	27	18.49	18.53	18.04	16.75	12.12	9.07	8.15	7.29	6.18	5.8	5.70	9.7	59.4	19.100	12.6	14.4	21.3		
LC	100%	5/14/2011	134	13.7	15.5	12.5	95.3	0.4	1.9	6.5	177	957.7	3244097	8	17.69	17.80	17.90	15.81	12.15	9.14	8.13	7.25	6.18	5.8	5.70	9.7	58.2	19.900	12.6	15.5	22.0		
LC	100%	5/15/2011	135	15.4	18.8	12.9	97.5	4.6	1.4	5.4	123	952.0	9259589	20	17.31	17.41	17.44	16.05	12.19	9.17	8.15	7.28	6.14	5.8	5.73	9.7	62.1	24.100	12.5	18.8	27.4		
LC	100%	5/16/2011	136	14.1	16.3	12.4	99.8	2.0	1.6	5.3	79	955.2	5839507	13	17.44	17.57	17.68	16.23	12.25	9.23	8.16	7.28	6.13	5.8	5.73	9.7	64.3	26.700	12.6	19.7	26.7		
LC	100%	5/17/2011	137	12.7	14.5	11.0	100.2	7.2	2.7	8.7	86	961.3	5025959	11	16.76	16.86	16.97	16.68	12.27	9.26	8.17	7.27	6.16	5.8	5.74	9.7	70.5	33.300	12.5	20.7	26.6		
LC	100%	5/18/2011	138	14.7	16.9	12.6	99.9	18.8	2.3	7.1	9.1	963.1	4310372	10	16.25	16.34	16.46	16.39	12.40	9.34	8.19	7.29	6.16	5.8	5.76	9.7	82.1	52.100	12.5	23.8	31.8		
LC	100%	5/19/2011	139	15.4	20.4	12.9	93.3	13.0	1.5	6.0	128	964.2	14738681	31	16.77	16.81	16.81	16.32	12.63	9.43	8.22	7.32	6.17	5.8	5.77	9.8	100.2	65.100	12.5	24.7	37.0		
LC	100%	5/20/2011	140	13.7	17.3	11.4	97.4	13.4	0.9	6.1	220	963.0	11969047	25	17.44	17.24	17.14	16.45	12.94	9.55	8.29	7.35	6.23	5.9	5.79	9.8	127.6	78.500	12.6	23.0	32.8		
LC	100%	5/21/2011	141	15.4	21.8	9.8	93.0	0.5	1.4	6.4	238	964.3	18632765	39	17.93	17.78	17.65	16.57	13.10	9.61	8.32	7.37	6.25	5.9	5.80	9.8	139.2	79.900	12.6	23.1	31.5		
LC	100%	5/22/2011	142	11.6	14.5	11.6	99.0	0.7	1.7	6.3	117	967.7	6432688	14	18.03	18.13	18.09	16.72	13.20	9.67	8.35	7.49	6.40	6.1	5.99	9.8	153.0	95.400	12.6	26.6	34.7		
LC	100%	5/23/2011	143	14.3	17.7	11.4	100.7	8.4	1.7	6.4	170	963.1	4672712	11	17.33	17.40	17.50	16.79	13.19	9.73	8.35	7.38	6.21	5.9	5.84	9.8	142.2	88.100	12.5	23.8	32.5		
LC	100%	5/24/2011	144	19.1	22.8	16.2	90.2	0.2	1.7	7.6	241	958.3	1397946	30	17.74	17.75	17.73	16.92	13.29	9.80	8.40	7.37	6.26	5.9	5.87	9.8	150.6	88.300	12.5	27.2	36.2		
LC	100%	5/25/2011	145	18.9	24.9	12.2	78.8	0.1	1.4	6.8	220	962.6	27706471	58	19.56	19.05	18.46	17.19	13.39	9.89	8.44	7.39	6.29	6.0	5.88	9.8	149.9	88.400	12.6	24.5	32.8		
LC	100%	5/26/2011	146	22.2	27.8	16.3	83.1	5.8	2.9	14.8	187	961.3	24666370	51	21.16	20.87	19.48	17.45	13.48	10.00	8.47	7.42	6.31	6.1	5.92	9.8	148.4	94.200	12.7	25.8	33.7		
LC	100%	5/27/2011	147	20.6	25.2	15.5	84.6	1.2	1.4	6.8	177	964.0	21155465	44	22.01	21.78	20.97	17.82	13.51	10.23	8.67	7.48	6.44	6.1	5.99	9.8	155.7	95.400	12.6	26.2	37.5		
LC	100%	5/28/2011	148	21.5	24.7	17.2	81.5	0.0	2.2	6.1	191	964.1	22363956	47	22.71	22.70	21.85	17.99	13.59	10.25	8.68	7.49	6.40	6.1	5.99	9.8	149.3	95.400	12.6	27.4	35.1		
LC	100%	5/29/2011	149	22.8	26.8	19.6	85.3	0.0	2.2	7.7	200	967.0	21375867	45	23.37	23.32	22.59	18.62	13.62	10.28	8.70	7.49	6.38	6.1	6.01	9.8	149.3	95.400	12.6	27.4	35.1		
LC	100%	5/30/2011	150	22.4	26.4	18.5	89.5	3.3	1.9	8.4	284	969.7	22920696	48	24.17	24.12	23.63	18.51	13.67	10.38	8.72	7.52	6.42	6.1	6.03	9.8	149.2	98.700	12.6	28.3	36.3		
LC	100%	5/31/2011	151	23.9	30.5	16.8	84.7	0.0	1.0																								