

**Table 1. 1997 and 2002 Water quality data for Diamond Lake.**

2002		Epilimnion														
DATE	DEPTH	ALK	TKN	NH <sub>3</sub> -N	NO <sub>3</sub> -N	TP	SRP	TDS	TSS	TS	TVS	NVSS	SECCHI	COND	pH	DO
5/21/2002	3	170	0.95	<0.1	0.101	0.029	<0.005	512	4.3	530	94	3.5	2.56	0.9034	8.19	10.1
6/25/2002	3	150	0.98	<0.1	<0.05	0.030	<0.005	458	4.4	517	132	3.3	5.32	0.8562	8.60	8.9
8/1/2002	3	140	1.36	<0.1	<0.05	0.034	<0.005	454	9.5	516	134	7.0	2.26	0.8518	8.75	8.7
8/27/2002	3	125	1.38	<0.1	<0.05	0.041	<0.005	436	7.2	483	130	5.3	2.13	0.7756	8.77	9.4
9/24/2002	3	136	1.33	0.164	<0.05	0.052	<0.005	428	4.1	463	102	3.2	4.92	0.7999	8.09	6.6

**Average** 144 1.20 0.164k 0.101k 0.037 <0.005 458 5.9 502 118 4.5 3.44 0.8374 8.48 8.7

1997		Epilimnion														
DATE	DEPTH	ALK	TKN	NH <sub>3</sub> -N	NO <sub>3</sub> -N	TP	SRP	TDS	TSS	TS	TVS	NVSS	SECCHI	COND	pH	DO
5/13/1997	3	149	1.06	0.207	0.147	0.030	0.007	454	5.7	510	86	4.7	4.50	0.8960	8.12	9.5
6/17/1997	3	148	0.90	<0.1	0.064	0.027	<0.005	504	4.2	533	108	3.3	4.40	0.9090	8.01	8.8
7/15/1997	3	143	0.93	<0.1	<0.05	0.020	<0.005	528	4.1	551	136	3.1	5.20	0.9170	8.28	8.5
8/12/1997	3	138	0.94	<0.1	<0.05	0.018	<0.005	521	2.4	554	141	1.8	5.16	0.9080	7.89	6.8
9/16/1997	3	136	0.90	<0.1	<0.05	0.018	<0.005	480	4.0	514	100	3.2	6.20	0.9060	8.06	9.8

**Average** 143 0.95 0.207k 0.106k 0.023 0.007k 497 4.1 532 114 3.2 5.09 0.9072 8.07 8.7

Glossary
ALK = Alkalinity, mg/L CaCO <sub>3</sub>
TKN = Total Kjeldahl nitrogen, mg/L
NH <sub>3</sub> -N = Ammonia nitrogen, mg/L
NO <sub>3</sub> -N = Nitrate nitrogen, mg/L
TP = Total phosphorus, mg/L
SRP = Soluble reactive phosphorus, mg/L
TDS = Total dissolved solids, mg/L
TSS = Total suspended solids, mg/L
TS = Total solids, mg/L
NVSS = Nonvolatile suspended solids, mg/L
TVS = Total volatile solids, mg/L
SECCHI = Secchi Disk Depth, ft.
COND = Conductivity, milliSiemens/cm
DO = Dissolved oxygen, mg/L

Note: "k" denotes that the actual value is known to be less than the value presented.

NA = Not Applicable

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2002		Hypolimnion													
DATE	DEPTH	ALK	TKN	NH <sub>3</sub> -N	NO <sub>3</sub> -N	TP	SRP	TDS	TSS	TS	TVS	SECCHI	COND	pH	DO
5/21/2002	21	171	1.01	<0.1	0.09	0.046	0.008	524	11.0	532	115	NA	0.9072	7.87	7.1
6/25/2002	21	186	1.63	0.75	<0.05	0.243	0.103	508	8.5	564	136	NA	0.9371	7.43	0.6
8/1/2002	20	210	2.92	1.80	<0.05	0.440	0.363	485	8.0	526	109	NA	0.9441	7.14	0.1
8/27/2002	21	211	3.73	2.60	<0.05	0.543	0.454	512	13.0	526	95	NA	0.9570	7.09	0.2
9/24/2002	20	143	1.76	0.49	<0.05	0.117	0.036	448	12.0	474	115	NA	0.8567	7.35	3.3

**Average** 184 2.21 1.40k 0.09k 0.278 0.193 495 10.5 524 114 NA 0.9204 7.38 2.2

1997		Hypolimnion													
DATE	DEPTH	ALK	TKN	NH <sub>3</sub> -N	NO <sub>3</sub> -N	TP	SRP	TDS	TSS	TS	TVS	SECCHI	COND	pH	DO
5/13/1997	23	152	1.18	0.22	0.13	0.027	<0.005	488	19.0	520	104	NA	0.8990	7.96	7.2
6/17/1997	22	173	1.81	0.75	0.06	0.165	0.090	514	26.0	534	76	NA	0.9340	7.49	0.1
7/15/1997	22	199	3.06	1.91	0.07	0.515	0.099	522	46.0	565	102	NA	0.9480	7.12	0.1
8/12/1997	21	188	3.17	2.23	0.10	0.526	0.101	514	34.0	548	175	NA	0.9460	7.16	0.1
9/16/1997	20	141	1.03	0.16	<0.05	0.053	0.005	468	22.0	534	97	NA	0.9090	7.38	1.6

**Average** 171 2.05 1.05 0.09k 0.257 0.074k 501 29.4 540 111 NA 0.9272 7.42 1.8

**Glossary**

ALK = Alkalinity, mg/L CaCO<sub>3</sub>  
 TKN = Total Kjeldahl nitrogen, mg/L  
 NH<sub>3</sub>-N = Ammonia nitrogen, mg/L  
 NO<sub>3</sub>-N = Nitrate nitrogen, mg/L  
 TP = Total phosphorus, mg/L  
 SRP = Soluble reactive phosphorus, mg/L  
 TDS = Total dissolved solids, mg/L  
 TSS = Total suspended solids, mg/L  
 TS = Total solids, mg/L  
 TVS = Total volatile solids, mg/L  
 SECCHI = Secchi Disk Depth, Ft.  
 COND = Conductivity, milliSiemens/cm  
 DO = Dissolved oxygen, mg/L

Note: "k" denotes that the actual value is known to be less than the value presented.

NA = Not Applicable

**Table 4. Aquatic vegetation sampling results for Diamond Lake, May - September 2002**

<b>Seasonal Summary</b> 5/28/02 - 9/30/02	Chara	Coontail	Eurasian Water milfoil	Sago Pondweed	Slender Naiad	Spatterdock	Eel grass	Water Stargrass	White Water Lily
Num. of Sites	30	79	106	16	6	11	1	2	3
% Occurrence	22%	58%	77%	12%	4%	8%	1%	1%	2%

  

<b>Monthly Summary</b> 5/28/02	Chara	Coontail	Eurasian Water milfoil	Sago Pondweed	Slender Naiad	Spatterdock	Eel grass	Water Stargrass	White Water Lily
Num. of Sites	20	14	31	5	0	2	1	1	0
% Occurrence	48%	33%	74%	12%	0%	5%	2%	2%	0%

  

<b>Monthly Summary</b> 7/3/02	Chara	Coontail	Eurasian Water milfoil	Sago Pondweed	Slender Naiad	Spatterdock	Eel grass	Water Stargrass	White Water Lily
Num. of Sites	7	17	22	4	4	2	0	0	0
% Occurrence	21%	52%	67%	12%	12%	6%	0%	0%	0%

  

<b>Monthly Summary</b> 8/1/02	Chara	Coontail	Eurasian Water milfoil	Sago Pondweed	Slender Naiad	Spatterdock	Eel grass	Water Stargrass	White Water Lily
Num. of Sites	2	20	19	1	1	4	0	0	1
% Occurrence	6%	59%	56%	3%	3%	12%	0%	0%	3%

  

<b>Monthly Summary</b> 8/30/02	Chara	Coontail	Eurasian Water milfoil	Sago Pondweed	Slender Naiad	Spatterdock	Eel grass	Water Stargrass	White Water Lily
Num. of Sites	1	15	16	2	0	2	0	1	1
% Occurrence	4%	54%	57%	7%	0%	7%	0%	4%	4%

  

<b>Monthly Summary</b> 9/25/02	Chara	Coontail	Eurasian Water milfoil	Sago Pondweed	Slender Naiad	Spatterdock	Eel grass	Water Stargrass	White Water Lily
Num. of Sites	0	13	18	4	1	1	0	0	1
% Occurrence	0%	50%	69%	15%	4%	4%	0%	0%	4%

**Plant Sampling Statistics**

Average Sample Depth      4.4 feet  
 Min. Sample Depth          1 foot  
 Max. Sample Depth         14 feet  
 Max. Plant Depth            10 feet  
 Number of Sites              163

### Diamond Lake Multiparameter Data

Date	Time	Depth	Dep25	Temp	DO	DO%	SpCond	pH	PAR	Depth of Light Meter	% Light Transmission Average	Extinction Coefficient
MMDDYY	HHMMSS	feet	feet	øC	mg/l	Sat	mS/cm	Units	æE/s/mý	feet		
52102	82739	0.25	0.34	12.81	9.88	94.8	0.9033	8.14	3400	Surface		0.71
52102	82931	1	1.02	12.81	10.21	98	0.9039	8.18	3358	Surface	100%	
52102	83012	2	2.02	12.74	10.14	97.1	0.9036	8.19	1193	0.27	36%	3.83
52102	83137	3	2.99	12.68	10.14	97	0.9034	8.19	916	1.24	27%	0.27
52102	83224	4	3.98	12.65	10.16	97.1	0.9034	8.19	482	2.23	14%	0.65
52102	83504	6	5.98	12.61	10.06	96.1	0.9034	8.2	320	4.23	10%	0.20
52102	83658	8	7.95	12.59	10.08	96.3	0.9036	8.2	167	6.2	5%	0.33
52102	83931	10	9.95	12.57	10.04	95.8	0.9034	8.2	82	8.2	2%	0.36
52102	84050	12	12.02	12.55	10.02	95.6	0.9035	8.2	41	10.27	1.2%	0.33
52102	84324	14	14.02	12.54	9.95	94.9	0.9037	8.2	22	12.27	0.7%	0.31
52102	84647	16	16.01	12.47	9.11	86.7	0.9046	8.11	11	14.26	0.3%	0.35
52102	84840	18	18.02	12.34	8.39	79.6	0.905	8.03	4	16.27	0.1%	0.50
52102	85048	20	20.05	12.26	7.99	75.7	0.9061	7.97	1	18.3	0.03%	0.68
52102	85228	22	22.04	12.13	6.11	57.7	0.9083	7.77	0	20.29		

Date	Time	Depth	Dep25	Temp	DO	DO%	SpCond	pH	PAR	Depth of Light Meter	% Light Transmission Average	Extinction Coefficient
MMDDYY	HHMMSS	feet	feet	øC	mg/l	Sat	mS/cm	Units	æE/s/mý	feet		
62502	104923	0.25	0.72	28.34	8.76	115.8	0.8565	8.59	2227	Surface	100%	0.53
62502	105123	2	2.09	28.2	8.82	116.2	0.8565	8.6	1239	0.34	56%	1.72
62502	105243	3	3.03	27.88	8.87	116.2	0.8562	8.6	919	1.28	41%	0.32
62502	105400	4	3.91	27.72	8.85	115.6	0.8553	8.61	1051	2.16	47%	-0.15
62502	105526	6	6.04	27.65	8.77	114.5	0.8549	8.61	481	4.29	22%	0.37
62502	105841	8	8.08	27.16	8.33	107.8	0.8564	8.54	320	6.33	14%	0.20
62502	110103	10	10.08	25.2	8.19	102.2	0.8599	8.46	167	8.33	7%	0.33
62502	110405	12	11.93	21.43	5.14	59.7	0.8681	7.97	83	10.18	4%	0.38
62502	110729	14	14.02	18.55	1.01	11.1	0.894	7.53	14	12.27	1%	0.85
62502	110838	16	15.99	15.51	0.12	1.3	0.9261	7.44	11	14.24	0.5%	0.12
62502	111011	18	17.99	14.39	0.07	0.8	0.9312	7.44	1	16.24	0.04%	1.20
62502	111055	20	19.95	13.85	0.06	0.6	0.9355	7.43	0	18.2		
62502	111201	22	21.97	13.55	0.06	0.6	0.9387	7.42	0	20.22		

Date	Time	Depth	Dep25	Temp	DO	DO%	SpCond	pH	PAR	Depth of Light Meter	% Light Transmission Average	Extinction Coefficient
MMDDYY	HHMMSS	feet	feet	øC	mg/l	Sat	mS/cm	Units	æE/s/mý	feet		0.91
80102	83945	0.25	0.28	27.6	8.81	115.3	0.8505	8.74	3247	Surface		
80102	84031	1	0.95	27.6	8.73	114.3	0.8508	8.75	3177	Surface	100%	
80102	84244	2	2.11	27.6	8.71	113.9	0.8512	8.75	846	0.36	27%	3.68
80102	84431	3	3.04	27.6	8.67	113.5	0.8518	8.75	507	1.29	16%	0.55
80102	84601	4	4.02	27.6	8.66	113.3	0.8521	8.75	276	2.27	9%	0.62
80102	84808	5	5.01	27.57	8.64	113	0.8523	8.74	198	3.26	6%	0.34
80102	84957	6	5.94	27.55	8.64	113	0.8527	8.74	125	4.19	4%	0.49
80102	85215	8	8.05	27.5	8.34	109	0.853	8.72	44	6.3	1.4%	0.49
80102	85354	10	10.07	27.13	6.97	90.4	0.8561	8.57	17	8.32	0.5%	0.47
80102	85541	12	12	25.36	2.27	28.5	0.8671	7.97	5	10.25	0.2%	0.63
80102	85701	14	14.04	23.09	0.16	2	0.8783	7.6	0	12.29		
80102	85958	16	15.95	19.47	0.07	0.8	0.9033	7.36	0	14.2		
80102	90114	18	17.99	15.82	0.08	0.8	0.9327	7.22	0	16.24		
80102	90424	20	19.98	14.78	0.06	0.6	0.9441	7.14	0	18.23		
80102	90542	22	22	14.3	0.05	0.5	0.9474	7.09	0	20.25		

Date	Time	Depth	Dep25	Temp	DO	DO%	SpCond	pH	PAR	Depth of Light Meter	% Light Transmission Average	Extinction Coefficient
MMDDYY	HHMMSS	feet	feet	øC	mg/l	Sat	mS/cm	Units	æE/s/mý	feet		1.34
82702	90737	0.25	0.25	25.38	9.88	123.4	0.7785	8.78	3830	Surface		
82702	90923	1	0.98	25.4	9.75	121.7	0.776	8.78	3772	Surface	100.0%	
82702	91058	2	2.02	25.38	9.65	120.4	0.7754	8.78	1371	0.27	36.3%	3.75
82702	91239	3	2.95	25.34	9.38	117	0.7756	8.77	685	1.2	18.2%	0.75
82702	91403	4	3.99	25.33	9.24	115.3	0.7756	8.76	360	2.24	9.5%	0.62
82702	91536	5	4.97	25.29	9.1	113.4	0.7757	8.73	125	3.22	3.3%	1.08
82702	91716	6	5.98	25.26	8.9	110.9	0.7758	8.72	27	4.23	0.7%	1.52
82702	91955	8	7.99	25.18	8.64	107.7	0.7767	8.69	14	6.24	0.4%	0.33
82702	92130	10	9.95	24.47	5.11	62.7	0.7794	8.18	0	8.2		
82702	92336	12	11.98	23.87	2.58	31.4	0.7788	7.81	0	10.23		
82702	92459	14	13.99	23.52	0.9	10.9	0.7802	7.62	0	12.24		
82702	92606	16	15.99	22.62	0.35	4.2	0.8222	7.52	0	14.24		
82702	92732	18	17.95	21.21	0.22	2.6	0.872	7.37	0	16.2		
82702	92851	20	19.98	18.09	0.21	2.2	0.9464	7.14	0	18.23		
82702	93009	22	21.99	16.55	0.17	1.8	0.9676	7.04	0	20.24		

Date MMDDYY	Time HHMMSS	Depth feet	Dep25 feet	Temp øC	DO mg/l	DO% Sat	SpCond mS/cm	pH Units	PAR æE/s/mý	Depth of Light Meter feet	% Light Transmission Average	Extinction Coefficient
92402	90239	0.25	0.3	19.56	7.01	77.9	0.7995	8.13	3341	Surface		0.79
92402	90350	1	0.98	19.59	6.7	74.5	0.7997	8.11	3365	Surface	100.0%	
92402	90508	2	2.09	19.6	6.74	74.9	0.8	8.1	1013	0.34	30.1%	3.53
92402	90614	3	3	19.61	6.6	73.4	0.7999	8.09	728	1.25	21.6%	0.36
92402	90736	4	4.07	19.62	6.53	72.6	0.8001	8.08	399	2.32	11.9%	0.56
92402	90836	5	4.98	19.61	6.58	73.2	0.8003	8.09	283	3.23	8.4%	0.38
92402	91003	6	5.99	19.61	6.56	73	0.8001	8.08	163	4.24	4.8%	0.55
92402	91143	8	8.04	19.6	6.64	73.8	0.8003	8.09	61	6.29	1.8%	0.48
92402	91256	10	10.02	19.59	6.4	71.1	0.8002	8.09	27	8.27	0.8%	0.41
92402	91347	12	12.02	19.56	6.26	69.5	0.8014	8.04	10	10.27	0.3%	0.50
92402	91433	14	14.1	19.52	6.26	69.5	0.8007	8.05	2	12.35	0.1%	0.77
92402	91554	16	16.01	19.47	6.35	70.4	0.8004	8.06	1	14.26	0.0%	0.36
92402	91730	18	18.07	19.25	6.33	69.9	0.8005	8.06	0	16.32		
92402	91822	20	20.04	19.16	3.25	35.9	0.8567	7.35	0	18.29		
92402	91859	22	22.1	18.68	4.49	49	0.8584	7.39	0	20.35		