

Big Lake 2014 Data Summary

Big Lake Snapshot

Years Monitored: 12
 Total # of Events: 45
 2014 Events: 4
 Total Hours Monitored: 92.3



Observations

Buffleheads
 Dragonflies
 Gulls
 Jumping Fish
 Loons
 Red-necked grebes
 Terns

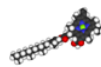
Water Level:
 Unknown

Water Color:
 Light green
 Green

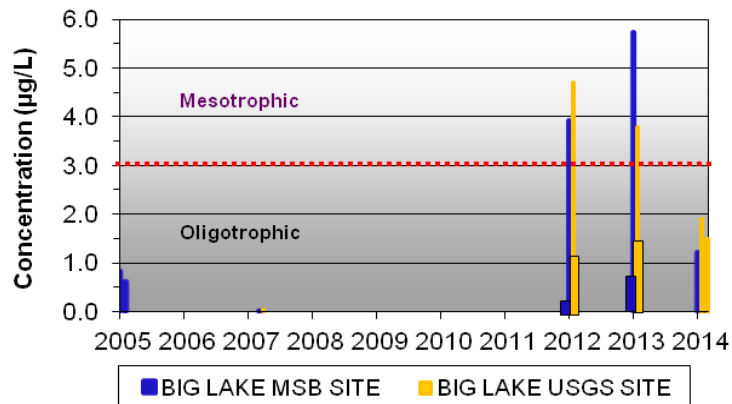
Algae:
 None to moderate

Aquatic Plants:
 Moderate; emergent tall plants; mostly in narrow channels and shallow bays.

Additional Comments:
 None



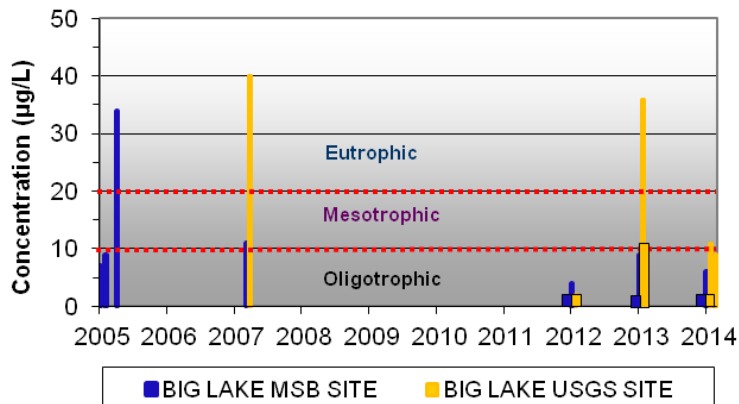
Big Lake • Chlorophyll a 2005, 2007, 2012-2014



Note: Data through 2003 is omitted from this graph, as the previous laboratory used different analytical methods.



Big Lake • Phosphorus 2005, 2007, 2012-2014



Note: Data through 2003 is omitted from this graph, as the previous laboratory used different analytical methods.

Big Lake MSB Site Profile Measurements

Big Lake MSB Site		Depth (m)	Temperature (oC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (SU)	Secchi Depth mean (m)	
Date	7/30/2014	0.0	19.94	0.161	9.47	8.16	7.90	
		1.0	19.01	0.160	9.36	8.20		
Site Depth (m)	> 20.00	2.0	18.88	0.161	9.43	8.21		
		3.0	18.78	0.161	9.39	8.21		
Phosphorus (µg/L)		4.0	18.73	0.161	9.33	8.21		
at 2 m	2.0	5.0	18.66	0.159	9.27	8.21		
at 15 m	2.0	6.0	17.63	0.162	9.68	8.12		
		7.0	14.24	0.163	10.09	7.80		
Chlorophyll a (µg/L)		8.0	11.91	0.165	8.63	7.67		
at 2 m	1.2	9.0	10.25	0.166	8.58	7.51		
at 15 m	1.1	10.0	9.50	0.167	7.88	7.45		
		15.0	7.62	0.170	5.69	7.38		
		20.0	6.90	0.170	3.83	7.32		
		23.0	6.71	0.170	2.48	7.25		
Date	6/27/2014	0.0	15.33	0.160	10.38	8.03	5.48	
		1.0	15.33	0.160	10.19	8.04		
Site Depth (m)	24.00	2.0	15.32	0.161	10.29	8.03		
		3.0	15.32	0.160	10.18	8.02		
Phosphorus (µg/L)		4.0	15.27	0.160	10.14	8.03		
at 2 m	2.0	5.0	15.24	0.160	10.12	8.02		
at 8 m	6.0	6.0	15.20	0.161	10.20	8.01		
		7.0	11.95	0.164	10.55	7.87		
Chlorophyll a (µg/L)		8.0	9.82	0.166	10.48	7.77		
at 2 m	0.8	9.0	8.84	0.168	10.00	7.68		
at 8 m	1.2	10.0	8.32	0.168	9.29	7.56		
		15.0	7.10	0.168	7.75	7.41		
		20.0	6.56	0.170	6.92	7.33		
ChIA	TP	Depth	T°	Cond	DO	pH	Secchi	
1.2	6.0	24.00	19.94	0.170	10.55	8.21	7.90	Max
0.8	2.0		6.56	0.159	2.48	7.25	5.48	Min
1.2	2.0		15.20	0.162	9.43	8.01	6.69	Med
1.1	3.0		13.27	0.164	8.87	7.83	6.69	Ave
0.2	2.0		4.39	0.004	2.05	0.33	1.71	StDev

Highlighted data does not meet Alaska Water Quality Standards (WQS)



Bufflehead



Dragonfly

Big Lake USGS Site Profile Measurements

Big Lake USGS Site		Depth (m)	Temperature (oC)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH (SU)	Secchi Depth mean (m)	
Date	7/30/2014	0.0	21.50	0.162	8.90	8.03	6.65	
		1.0	19.76	0.162	8.93	8.05		
Site Depth (m)	15.50	2.0	19.41	0.161	8.95	8.07		
		3.0	19.27	0.161	9.02	8.07		
Phosphorus (µg/L)		4.0	18.96	0.160	9.02	8.09		
at 2 m	2.0	5.0	18.42	0.160	9.12	8.07		
at 10 m	9.0	6.0	17.02	0.164	9.37	7.82		
		7.0	13.71	0.167	9.12	7.62		
Chlorophyll a (µg/L)		8.0	12.21	0.166	8.10	7.45		
at 2 m	1.5	9.0	10.48	0.168	6.60	7.33		
at 10 m	1.5	10.0	9.50	0.170	4.93	7.22		
		15.0	6.39	0.191	0.29	7.08		
Date	6/27/2014	0.0	15.52	0.160	9.91	8.09	5.80	
		1.0	15.51	0.161	9.90	8.03		
Site Depth (m)	12.60	2.0	15.48	0.161	9.90	8.06		
		3.0	15.43	0.159	9.87	8.05		
Phosphorus (µg/L)		4.0	15.35	0.159	9.88	8.05		
at 2 m	2.0	5.0	15.14	0.161	9.91	8.02		
at 8 m	11.0	6.0	14.39	0.162	10.10	7.97		
		7.0	11.16	0.164	10.26	7.87		
Chlorophyll a (µg/L)		8.0	10.15	0.165	9.82	7.73		
at 2 m	1.9	9.0	8.49	0.171	8.35	7.65		
at 8 m	1.2	10.0	8.06	0.172	7.52	7.54		
		12.0	6.55	0.179	4.20	7.32		
ChIA	TP	Depth	T°	Cond	DO	pH	Secchi	
1.9	11.0	15.50	21.50	0.191	10.26	8.09	6.65	Max
1.2	2.0		6.39	0.159	0.29	7.08	5.80	Min
1.5	5.5		15.25	0.162	9.07	8.00	6.23	Med
1.5	6.0		14.08	0.165	8.42	7.80	6.23	Ave
0.3	4.7		4.42	0.007	2.33	0.32	0.60	StDev

Highlighted data does not meet Alaska Water Quality Standards (WQS)

The Alaska Water Quality Standards do not apply absolutely to lakes without taking multiple factors into account. For more information on WQS, please see <http://www.dec.state.ak.us/water/wqsar/wqs/>.



Red-necked grebe

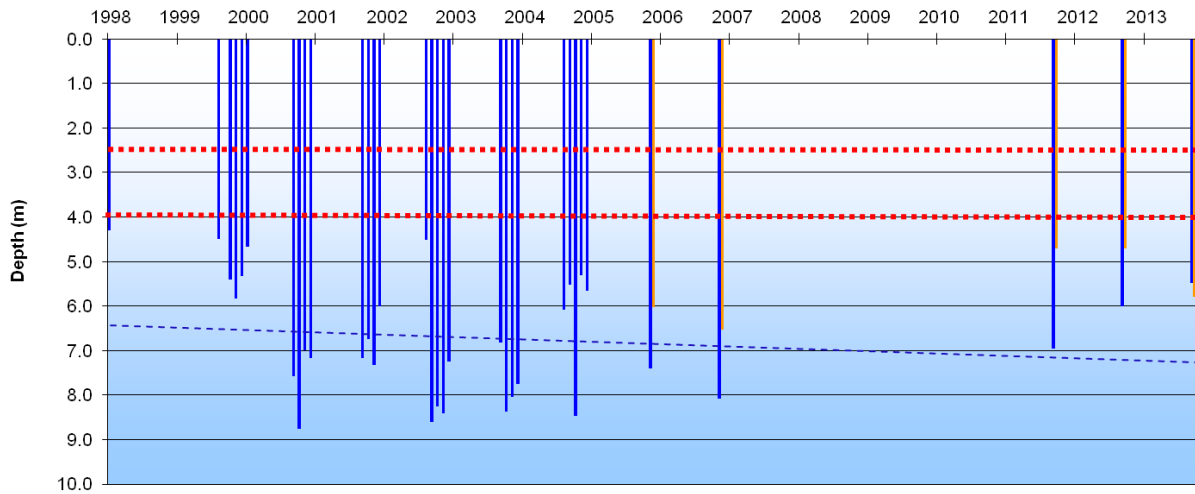


Matthew Goudey pulling the anchor

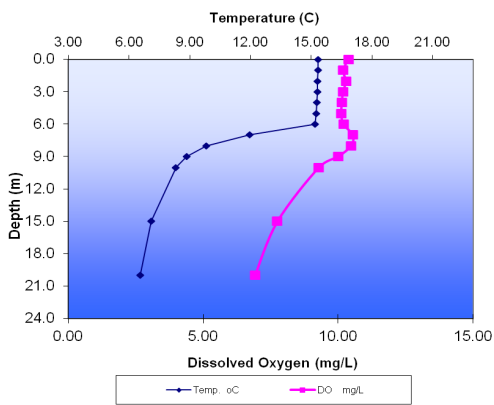
Matanuska-Susitna Borough Volunteer Lake Monitoring Program



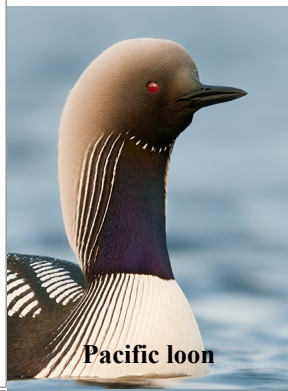
Big Lake Secchi Data 1998-2007, 2012-2014



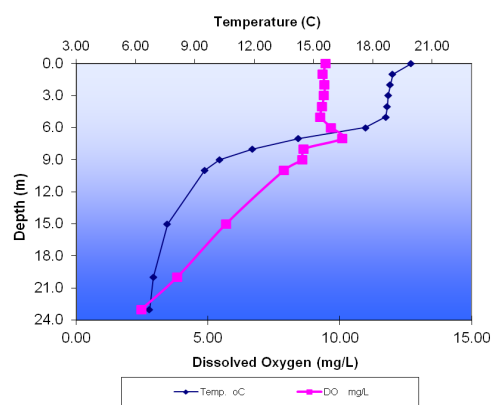
Temperature and Dissolved Oxygen Profile
Big Lake MSB Site -- June 2014



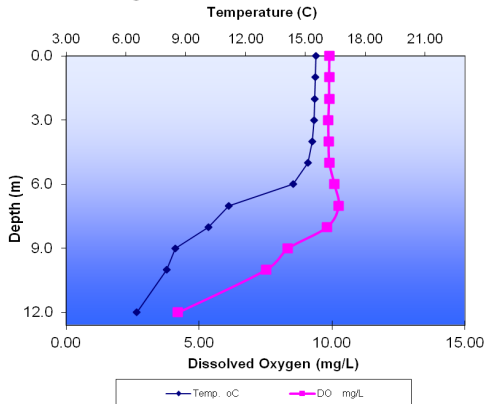
MSB Site
USGS Site
Trend (MSB Site)



Temperature and Dissolved Oxygen Profile
Big Lake MSB Site -- July 2014



Temperature and Dissolved Oxygen Profile
Big Lake USGS Site -- June 2014



Temperature and Dissolved Oxygen Profile
Big Lake USGS Site -- July 2014

