

SUMMARY OF WATER-QUALITY DATA COLLECTED AT PUCKAWAY LAKE BY USGS, 2005 - 2007

This summary contains all data that were collected by the US Geological Survey for Lake Puckaway Protection and Rehabilitation District as part of a program that was partially funded by Wisconsin Department of Natural Resources Lake Planning Grant LPL-1011. Most of these data have been, and the remainder will be, published in three annual data reports of the Wisconsin Water Science Center of the U.S. Geological Survey. These reports are "Water-quality and lake-stage data for Wisconsin Lakes, water years 2005 – 2007. In addition, the data are archived in the U.S. Geological Survey's national water-quality database.

United States Geological Survey
Middleton, Wisconsin

December 21, 2007

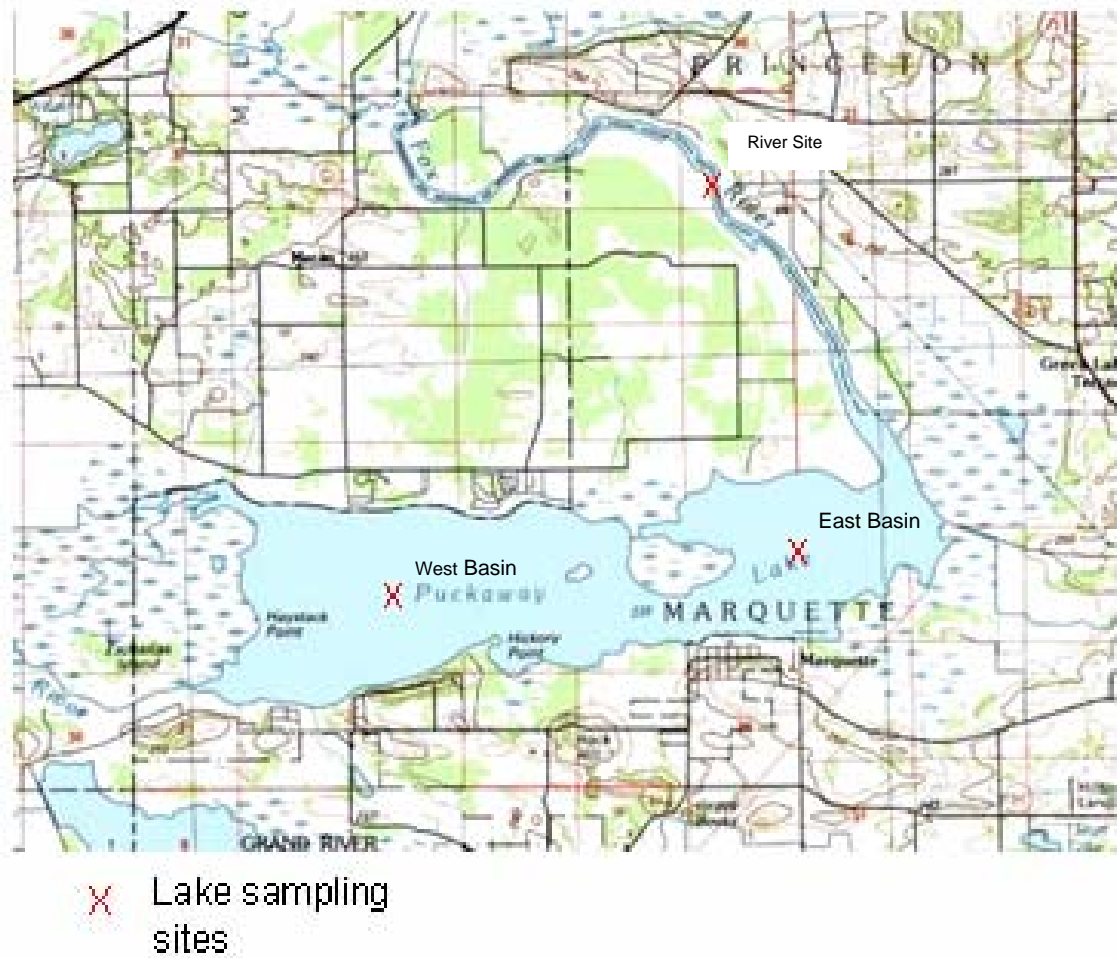


Figure 1. USGS Lake sampling sites

Station Name	USGS Station Number	STORET Number	Latitude (Decimal degrees)	Longitude (Decimal degrees)
Puckaway Lake, West Basin	434515089124000	243039	43.754068	-89.202026
Puckaway Lake, East Basin	434542089073000	243056	43.760850	-89.122930
Puckaway Lake, River Site	434824089083200	--	43.806667	89.142222

Table 1. Profiles of field-measured parameters for Puckaway Lake, West Basin, 2005 - 2007

	00098	00300	00400	00095	00010
Date & Time	Sampling depth (meters)	Dissolved oxygen (mg/L)	pH (std units)	Specific conductance (uS/cm @25C)	Temperature (degrees C)
4/21/05 9:40	0.25	8.4	8.7	354	14.5
4/21/05 9:41	0.5	8.4	8.7	353	14.5
4/21/05 9:42	0.75	8.4	8.7	353	14.5
4/21/05 9:43	1	8.4	8.7	353	14.5
4/21/05 9:44	1.2	8.3	8.7	353	14.5
4/21/05 9:45	1.5	8.3	8.7	354	14.5
6/20/05 12:00	0.25	11.8	9	360	25.8
6/20/05 12:01	0.5	12.2	9.1	358	25.5
6/20/05 12:02	0.75	13.4	9.1	356	24.2
6/20/05 12:03	1	9.8	8.9	367	22.7
6/20/05 12:04	1.2	9	8.9	367	22.6
7/18/05 14:10	0.25	8.8	8.6	311	28.4
7/18/05 14:11	0.5	8.8	8.6	311	28.4
7/18/05 14:12	0.75	8.8	8.6	311	28.4
7/18/05 14:13	1	8.7	8.6	310	28.4
7/18/05 14:14	1.2	8.6	8.6	312	28.4
8/22/05 15:30	0.25	9.5	8.8	325	22.8
8/22/05 15:31	0.5	9.5	8.8	325	22.8
8/22/05 15:32	0.75	9.5	8.8	326	22.8
8/22/05 15:33	1	9.6	8.8	325	22.8
8/22/05 15:34	1.2	9.6	8.8	325	22.8
4/18/06 13:21	0.5	11.3	8.6	368	13.8
6/29/06 13:30	0.25	11.5	8.7	359	24.4
6/29/06 13:31	0.5	12.2	8.7	358	23.3
6/29/06 13:32	0.75	11.9	8.7	362	22.4
6/29/06 13:33	1	11.2	8.6	364	22.2
6/29/06 13:34	1.2	10.2	8.6	366	22.1

Table 1. Profiles of field-measured parameters for Puckaway Lake, West Basin, 2005 - 2007--
continued

	00098	00300	00400	00095	00010
Date & Time	Sampling depth (meters)	Dissolved oxygen (mg/L)	pH (std units)	Specific conductance (uS/cm @25C)	Temperature (degrees C)
7/27/06 14:45	0.25	12.5	8.9	356	28.8
7/27/06 14:46	0.5	12.2	8.9	357	28.5
7/27/06 14:47	0.75	10	8.8	356	27.4
7/27/06 14:48	1	8.9	8.8	356	27.1
7/27/06 14:49	1.2	7.9	8.7	356	26.9
9/7/06 15:00	0.25	10.2	8.4	367	23.1
9/7/06 15:01	0.5	10.1	8.4	367	23.1
9/7/06 15:02	0.75	10.1	8.4	367	23
9/7/06 15:03	1	9.8	8.4	367	23
9/7/06 15:04	1.2	9.8	8.4	367	22.9
4/24/07 10:35	0.25	11.6	8.7	394	16.4
4/24/07 10:36	0.5	11.4	8.7	393	16.2
4/24/07 10:37	0.75	11.4	8.7	393	16.2
4/24/07 10:38	1	11.3	8.7	394	16.1
4/24/07 10:39	1.2	11.2	8.7	394	16.1
4/24/07 10:40	1.5	10.8	8.7	394	16
6/21/07 9:15	0.25	8.2	8.5	376	23.8
6/21/07 9:16	0.5	8.2	8.5	376	23.8
6/21/07 9:17	0.75	8.1	8.5	375	23.8
6/21/07 9:18	1	8	8.5	376	23.8
6/21/07 9:19	1.2	8	8.4	372	23.8
6/21/07 9:20	1.5	7.8	8.4	376	23.8
7/24/07 10:39	0.25	9.3	8.8	350	25
7/24/07 10:40	0.5	9.3	8.8	350	25
7/24/07 10:41	0.75	9.1	8.8	349	24.9
7/24/07 10:42	1	9.1	8.8	350	24.9
7/24/07 10:43	1.2	8.8	8.8	350	24.8
9/13/07 11:00	0.5	8.9	8.5	417	16.7
9/13/07 11:01	1	8.8	8.5	417	16.7
9/13/07 11:02	1.2	8.8	8.5	417	16.7

Table 2. Secchi depth, Phosphorus, and Chlorophyll a data for Puckaway Lake, West Basin, 2005 - 2007

Date & Time	00098 Sampling depth (meters)	00078 Secchi Depth (meters)	00665 Phosphorus (mg/L)	32210 Chlorophyll a (ug/L)
4/21/05 9:41	0.5	--	0.111	31.8
4/21/05 9:44	1.2	--	0.091	--
4/21/05 10:00	--	0.6	--	--
6/20/05 12:01	0.5	--	0.132	73.4
6/20/05 12:05	--	0.75	--	--
7/18/05 14:11	0.5	--	0.313	168
7/18/05 14:15	--	0.2	--	--
8/22/05 15:31	0.5	--	0.166	53.1
8/22/05 15:40	--	0.45	--	--
4/18/06 13:21	0.5	--	0.101	65.1
4/18/06 13:30	--	0.55	--	--
6/29/06 13:31	0.5	--	0.074	25.9
6/29/06 13:25	--	1.05	--	--
7/27/06 14:46	0.5	--	0.093	39.2
7/27/06 14:50	--	0.65	--	--
9/7/06 15:01	0.5	--	0.081	30.3
9/7/06 15:05	--	0.65	--	--
4/24/07 10:36	0.5	--	0.085	54.9
4/24/07 10:45	--	0.5	--	--
6/21/07 9:16	0.5	--	0.140	63.8
6/21/07 9:19	1.2	--	0.155	--
6/21/07 9:22	--	0.45	--	--
7/24/07 10:40	0.5	--	0.121	51.6
7/24/07 10:45	--	0.4	--	--
9/13/07 11:00	0.5	--	0.104	30.8
9/13/07 11:04	--	0.75	--	--

Table 3. Profiles of field-measured parameters for Puckaway Lake, East Basin, 2005 - 2007

Date & Time	00098	00300	00400	00095	00010
	Sampling depth (meters)	Dissolved oxygen (mg/L)	pH (std units)	Specific conductance (uS/cm @25C)	Temperature (degrees C)
4/21/05 10:30	0.25	9.6	8.7	328	14
4/21/05 10:31	0.5	9.5	8.7	328	14
4/21/05 10:32	0.75	9.5	8.7	329	13.9
4/21/05 10:33	1	9.2	8.7	329	13.8
6/20/05 12:45	0.25	10.4	9.2	335	25.2
6/20/05 12:46	0.5	10.7	9.2	334	25.1
6/20/05 12:47	0.75	10	9.2	334	24.1
7/18/05 15:30	0.25	12.4	9.2	261	28.4
7/18/05 15:31	0.5	11.9	9.2	261	28.4
7/18/05 15:32	0.75	11.9	9.2	260	28.4
8/22/05 13:40	0.25	10.1	9.3	240	22.2
8/22/05 13:41	0.5	9.8	9.2	241	22.2
8/22/05 13:42	0.75	9.3	9.2	242	22.1
4/18/06 14:20	0.25	11.4	8.7	367	13.8
4/18/06 14:21	0.5	11.3	8.7	367	13.8
4/18/06 14:22	0.75	11.3	8.7	367	13.8
6/29/06 14:20	0.25	9.9	8.7	364	24.2
6/29/06 14:21	0.5	9.7	8.6	364	23.9
6/29/06 14:22	0.75	9.8	8.6	365	23.5
7/27/06 15:30	0.25	10.3	8.8	352	28.7
7/27/06 15:31	0.5	10.3	8.9	353	28.8
7/27/06 15:32	0.75	9.8	8.8	352	28.8
9/7/06 15:40	0.25	10.7	8.5	355	24.1
9/7/06 15:41	0.5	10.6	8.5	355	24.1
9/7/06 15:42	0.75	10.6	8.5	355	24.1
4/24/07 11:05	0.25	11.2	8.8	380	17
4/24/07 11:06	0.5	11.2	8.8	380	17
4/24/07 11:07	0.75	11.1	8.8	380	16.8
4/24/07 11:08	1	10.6	8.8	381	16.6
6/21/07 10:40	0.25	8.4	8.3	404	23.2
6/21/07 10:41	0.5	8	8.3	402	23.2
6/21/07 10:42	0.75	8	8.3	403	23.2
6/21/07 10:43	0.9	8	8.3	402	23.1
7/24/07 11:19	0.25	8.8	8.8	345	25.2
7/24/07 11:20	0.5	8.8	8.8	345	25.2
7/24/07 11:21	0.75	8.6	8.8	345	25.1
9/13/07 12:30	0.5	9.9	8.8	377	16
9/13/07 12:31	0.75	9.9	8.8	377	16

Table 4. Secchi depth, Phosphorus, and Chlorophyll a data for Puckaway Lake, East Basin, 2005 - 2007

Date & Time	00098 Sampling depth (meters)	00078 Secchi Depth (meters)	00665 Phosphorus (mg/L)	32210 Chlorophyll a (ug/L)
4/21/05 10:31	0.5	--	0.078	39.5
4/21/05 10:32	0.75	--	0.082	--
4/21/05 10:45	--	0.6	--	--
6/20/05 12:46	0.5	--	0.068	33.9
6/20/05 12:50	--	0.8	--	--
7/18/05 15:31	0.5	--	0.419	288
7/18/05 15:35	--	0.12	--	--
8/22/05 13:41	0.5	--	0.281	140
8/22/05 13:45	--	0.25	--	--
4/18/06 14:21	0.5	--	0.117	78.6
4/18/06 14:25	--	0.45	--	--
6/29/06 14:15	--	0.85	--	--
6/29/06 14:21	0.5	--	0.056	14.1
7/27/06 15:31	0.5	--	0.097	38.4
7/27/06 15:35	--	0.55	--	--
9/7/06 15:41	0.5	--	0.081	29.5
9/7/06 15:45	--	0.45	--	--
4/24/07 11:06	0.5	--	0.101	51.3
4/24/07 11:15	--	0.4	--	--
6/21/07 10:41	0.5	--	0.108	57.2
6/21/07 10:42	0.75	--	0.115	--
6/21/07 10:45	--	0.35	--	--
7/24/07 11:20	0.5	--	0.143	70.3
7/24/07 11:25	--	0.3	--	--
9/13/07 12:30	0.5	--	0.119	47.9
9/13/07 12:34	--	0.5	--	--

Table 5. Profiles of field-measured parameters for Puckaway Lake, River Site, 2005 - 2007

Date & Time	00098	00300	00400	00095	00010
	Sampling depth (meters)	Dissolved oxygen (mg/L)	pH (std units)	Specific conductance (uS/cm @25C)	Temperature (degrees C)
4/21/05 11:25	0.25	8.6	8.7	330	13.9
4/21/05 11:26	0.5	8.6	8.7	330	13.9
4/21/05 11:27	0.75	8.6	8.7	330	13.9
4/21/05 11:28	1	8.7	8.7	331	13.9
4/21/05 11:29	1.20	8.7	8.7	330	13.9
4/21/05 11:30	1.5	8.6	8.7	330	13.9
4/21/05 11:31	1.75	8.6	8.7	331	13.9
4/21/05 11:32	2	8.7	8.7	330	13.9
4/21/05 11:33	2.2	8.6	8.7	331	13.9
6/20/05 13:30	0.25	9	9.1	344	26.9
6/20/05 13:31	0.5	9.2	9.1	343	26.7
6/20/05 13:32	0.75	9.2	9.1	343	26.6
6/20/05 13:33	1	9.1	9.1	343	26.7
6/20/05 13:34	1.25	8.7	9	343	26.1
6/20/05 13:35	1.5	8.4	9	344	25.5
6/20/05 13:36	1.78	7.5	8.9	344	24.6
6/20/05 13:37	2	7	8.9	345	24.1
6/20/05 13:38	2.2	6.7	8.9	345	24.1
7/18/05 16:30	0.25	13.7	9.3	257	30.4
7/18/05 16:31	0.5	13.6	9.3	257	30.3
7/18/05 16:32	0.75	13.5	9.3	256	30.2
7/18/05 16:33	1	13.1	9.3	257	30.2
7/18/05 16:34	1.25	13	9.3	258	29.8
7/18/05 16:35	1.5	11.9	9.2	258	29.5
7/18/05 16:36	1.75	12	9.2	256	29.3
7/18/05 16:37	2	11.5	9.2	257	29.3
8/22/05 14:30	0.25	11.2	9.5	240	23.1
8/22/05 14:31	0.5	10.8	9.5	240	23.1
8/22/05 14:32	0.75	10.6	9.5	240	23.1
8/22/05 14:33	1	10.3	9.4	239	23.1
8/22/05 14:34	1.25	8.4	9.4	238	22.9
8/22/05 14:35	1.5	6.5	9.2	239	22.1
8/22/05 14:36	1.75	6.3	9.2	239	22
8/22/05 14:37	2	5.9	9.2	239	22
8/22/05 14:38	2.25	6	9.2	239	22
8/22/05 14:39	2.5	6	9.2	239	22
4/18/06 15:30	0.25	12.2	8.7	357	14.4
4/18/06 15:31	0.5	12.2	8.7	359	14.3
4/18/06 15:32	0.75	12.2	8.7	360	14.1
4/18/06 15:33	1	12.3	8.7	361	13.8
4/18/06 15:34	1.25	12.2	8.8	361	13.8
4/18/06 15:35	1.5	12.3	8.8	362	13.7
4/18/06 15:36	1.75	12.3	8.8	362	13.8
4/18/06 15:37	2	12.3	8.8	362	13.8
4/18/06 15:38	2.2	12.3	8.8	362	13.7

Table 5. Profiles of field-measured parameters for Puckaway Lake, River Site, 2005 - 2007--
continued

	00098	00300	00400	00095	00010
Date & Time	Sampling depth (meters)	Dissolved oxygen (mg/L)	pH (std units)	Specific conductance (uS/cm @25C)	Temperature (degrees C)
6/29/06 14:55	0.25	9.7	8.6	369	24.5
6/29/06 14:56	0.5	9.6	8.6	369	24.3
6/29/06 14:57	0.75	9.4	8.6	369	23.4
6/29/06 14:58	1	8.7	8.5	370	22.1
6/29/06 14:59	1.25	8.6	8.5	370	22
6/29/06 15:00	1.5	8.6	8.5	370	22
6/29/06 15:01	1.75	8.6	8.6	370	22
6/29/06 15:02	2	8.5	8.6	371	22
7/27/06 16:00	0.25	10.1	8.8	356	29.3
7/27/06 16:01	0.5	9.4	8.7	358	29.1
7/27/06 16:02	0.75	9.1	8.7	359	29
7/27/06 16:03	1	8.7	8.7	360	28.9
7/27/06 16:04	1.25	8.1	8.7	360	28.6
7/27/06 16:05	1.5	7.7	8.6	361	28.5
7/27/06 16:06	1.75	6.2	8.5	362	28
7/27/06 16:07	2	5.9	8.5	363	27.8
7/27/06 16:08	2.2	5.7	8.5	364	27.8
9/7/06 16:15	0.25	9.7	8.4	354	23.9
9/7/06 16:16	0.5	9.6	8.4	354	23.9
9/7/06 16:17	0.75	9.1	8.4	354	23.7
9/7/06 16:18	1	8.6	8.4	354	23.2
9/7/06 16:19	1.25	8.4	8.4	354	23
9/7/06 16:20	1.5	8.1	8.4	355	22.8
9/7/06 16:21	1.75	7.7	8.4	357	22.6
9/7/06 16:22	2	7.4	8.4	357	22.5
9/7/06 16:23	2.2	7.4	8.3	357	22.5
4/24/07 11:40	0.25	10	8.7	371	16
4/24/07 11:41	0.5	10	8.8	372	16
4/24/07 11:42	0.75	9.9	8.7	372	16
4/24/07 11:43	1	9.9	8.8	371	16
4/24/07 11:44	1.25	9.9	8.8	372	16
4/24/07 11:45	1.5	9.8	8.8	372	16
4/24/07 11:46	1.75	9.8	8.8	372	16
4/24/07 11:47	2	9.8	8.8	371	16
4/24/07 11:48	2.2	9.8	8.8	372	16
6/21/07 10:00	0.25	8	8.3	405	24
6/21/07 10:01	0.5	7.7	8.2	405	24
6/21/07 10:02	0.75	7.7	8.3	406	24
6/21/07 10:03	1	7.6	8.2	406	24
6/21/07 10:04	1.25	7.6	8.2	405	24
6/21/07 10:05	1.5	7.4	8.2	405	24
6/21/07 10:06	1.75	7.4	8.2	405	23.9
7/24/07 12:24	0.25	8.6	8.6	347	26.9
7/24/07 12:25	0.5	8.6	8.6	347	26.9
7/24/07 12:26	0.75	7.9	8.6	348	26.5
7/24/07 12:27	1	7.3	8.6	347	26.3
7/24/07 12:28	1.25	6.3	8.5	349	26
7/24/07 12:29	1.5	3.1	8.1	358	25
7/24/07 12:30	1.75	2.7	8	361	24.7
9/13/07 12:00	0.5	9.9	8.8	380	16
9/13/07 12:01	1	9.8	8.8	381	16
9/13/07 12:02	1.5	9.7	8.8	381	15.9
9/13/07 12:03	2	9.6	8.8	381	15.9

Table 6. Secchi depth, Phosphorus, and Chlorophyll a data for Puckaway Lake, River Site, 2005 - 2007

Date & Time	00098 Sampling depth (meters)	00078 Secchi Depth (meters)	00665 Phosphorus (mg/L)	32210 Chlorophyll a (ug/L)
4/21/05 11:26	0.5	--	0.095	41.5
4/21/05 11:32	2	--	0.107	--
4/21/05 11:45	--	0.6	--	--
6/20/05 13:31	0.5	--	0.093	40.9
6/20/05 13:36	1.75	--	0.1	--
6/20/05 13:40	--	0.91	--	--
7/18/05 16:31	0.5	--	0.242	196
7/18/05 16:36	1.75	--	0.24	--
7/18/05 16:40	--	0.25	--	--
8/22/05 14:31	0.5	--	0.243	122
8/22/05 14:38	2.2	--	0.283	--
8/22/05 14:40	--	0.25	--	--
4/18/06 15:31	0.5	--	0.088	49.4
4/18/06 15:37	2	--	0.062	--
4/18/06 15:40	--	0.65	--	--
6/29/06 14:50	--	0.85	--	--
6/29/06 14:56	0.5	--	0.085	17.2
6/29/06 15:01	1.75	--	0.058	--
7/27/06 16:01	0.5	--	0.12	45
7/27/06 16:07	2	--	0.128	--
7/27/06 16:10	--	0.45	--	--
9/7/06 16:16	0.5	--	0.104	39.2
9/7/06 16:22	2	--	0.097	--
9/7/06 16:25	--	0.55	--	--
4/24/07 11:41	0.5	--	0.099	54
4/24/07 11:46	2	--	0.106	--
4/24/07 11:55	--	0.4	--	--
6/21/07 10:01	0.5	--	0.103	45.3
6/21/07 10:05	1.5	--	0.123	--
6/21/07 10:08	--	0.35	--	--
7/24/07 12:25	0.5	--	0.146	57.3
7/24/07 12:29	1.5	--	0.164	--
7/24/07 12:35	--	0.3	--	--
9/13/07 12:00	0.5	--	0.116	42.3
9/13/07 12:05	--	0.55	--	--

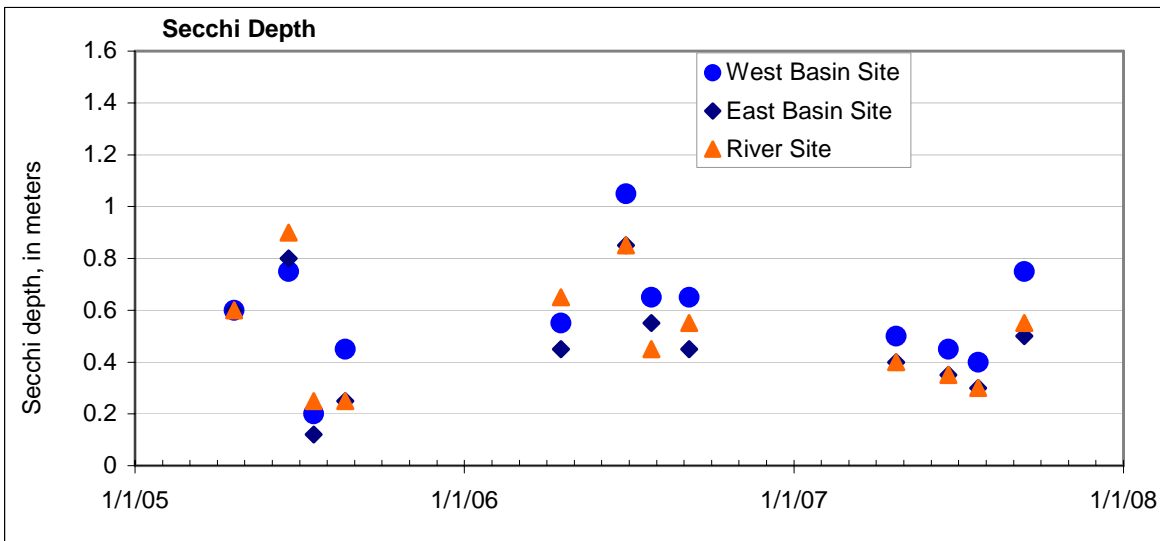
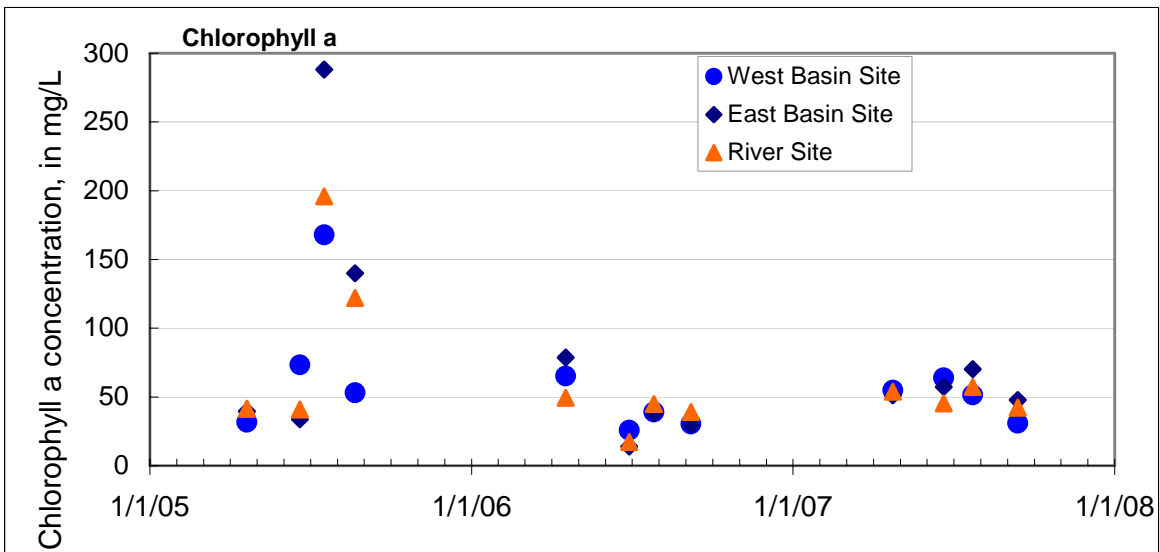
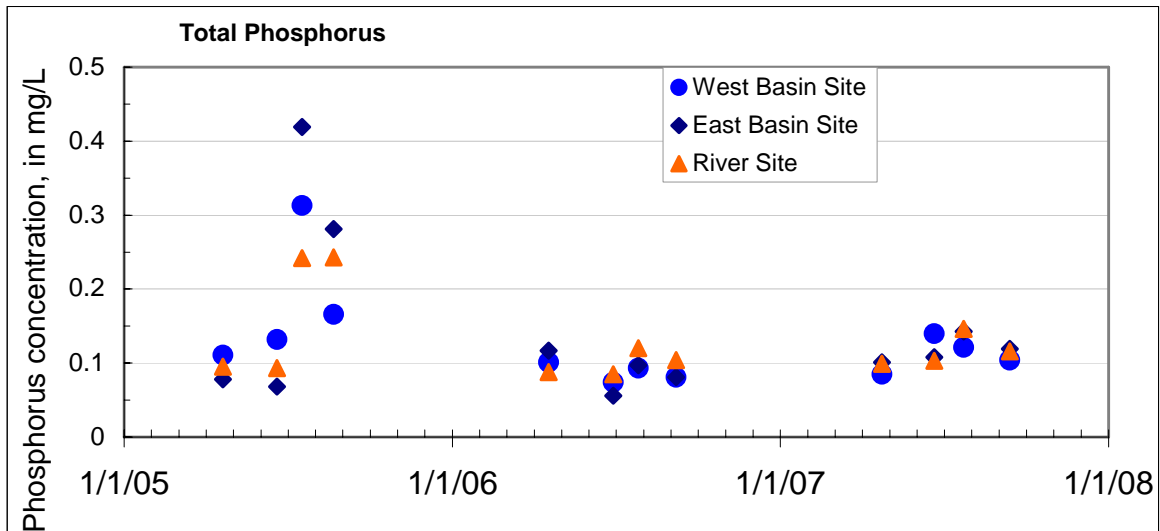


Figure 2. Phosphorus and chlorophyll a concentrations and Secchi depths at three Puckaway Lake sampling sites, 2005 - 2007.

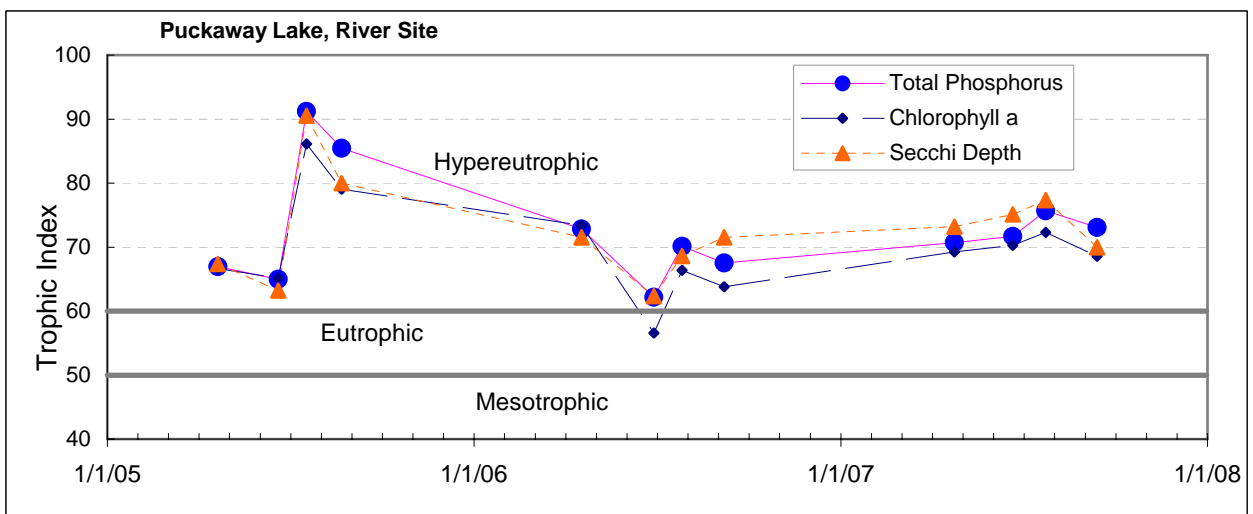
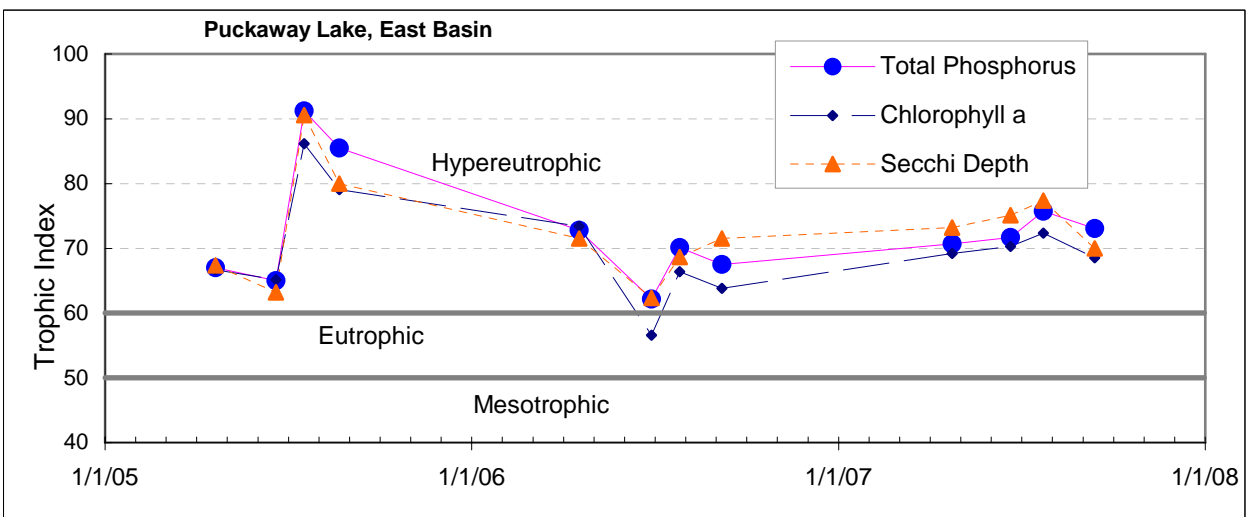
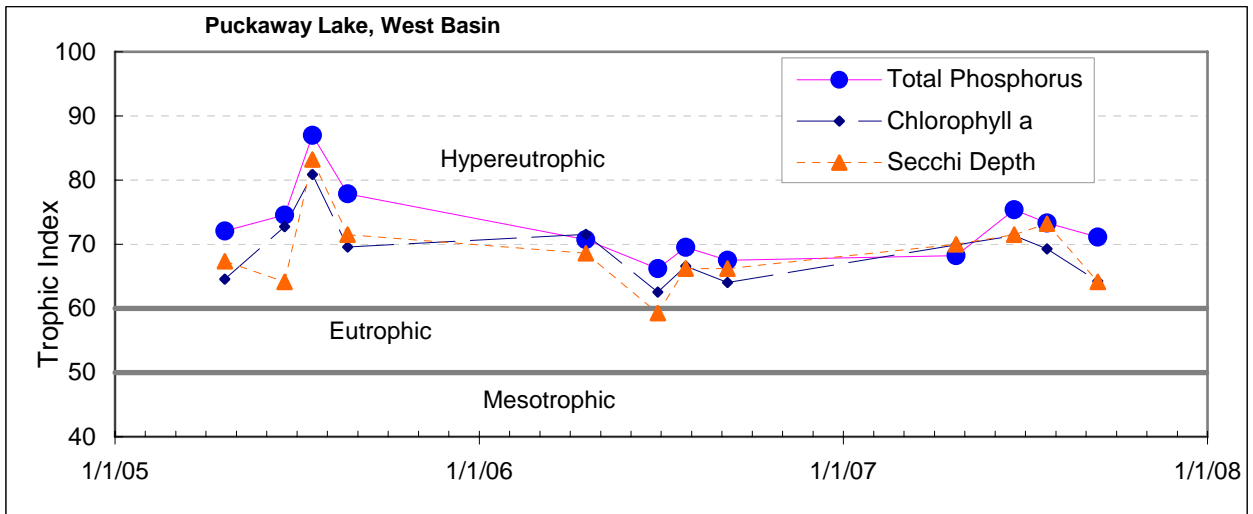


Figure 3. Trophic conditions at three Puckaway Lake sampling sites, 2005 - 2007.