

Mashpee Ponds Water Quality History (2001 - 2011)

The following is a summary of the water quality tests for the last 10 years or so on the Mashpee Ponds that MEC monitors. The water samples are/were tested at UMASS Dartmouth.

follows:

- Green for Oligotrophic, for best condition.
- White, for medium condition.
- Gold for Eutrophic, for bad condition.
- Purple for Hyper-eutrophic, for worst condition.

TROPHIC STATE CLASSIFICATIONS	Best <u>OLIGO</u>	Mid <u>MESO</u>	Bad <u>EU</u>	Worst <u>Hyper-EU</u>
PHOSPHORUS ug/l	below 12	12 to 24	above 24	96-384
CHLOROPHYL A ug/l	below 2.6	2.6 to 7.2	above 7.2	56-155
Transparency (meters)	above 4	2 to 4	below 2	below 0.25

For example: Ashumet for 2011 had the best Chlorophyl readings down to 9 meters depth but worst readings for Phosphorus at 21 meters and worst readings for Transparency (Secchi depth).

ASHUMET SNAPSHOT

Test Date	Depth (M)	pH	Alk (mg CaCO ₃ /L)	Chlor.	Nitrogen	Phosphor	Transparency
				ug/l	ug/l	ug/l	(Meters)
SEPT 1,2011	0.5	6.9	12.4	1.0	31.8	21.1	1.7
	3.0	6.9	13.2	2.6	21.9	21.3	
	9.0	6.6	15.6	0.7	33.8	10.6	
	21.0	6.6	20.4	4.5	37.4	144.7	
AUG 21,2010	0.5	7.1	9.6	13.5	47.3	43.7	3.4
	3.0	7.0	9.7	11.1	41.2	18.0	
	9.0	6.9	9.6	4.7	31.0	45.8	
	17.0	6.8	28.3	37.9	177.4	231.4	
Aug-07 Ed Baker report	0.5			5.1		14.3	2.5
AUG. 2007 CREATED 8/13/07	0.5	6.3	7.6	5.1	24.5	15.5	2.7
	3.0	6.3	7.6	3.5	22.5	27.9	
	9.0	6.1	10.8	5.6	19.2	15.5	
	20.0	6.3	16.4	6.3	165.3	511.1	
Aug. 2006 created Aug 2007	0.5	6.7	14.7	2.2	26.9	15.5	
	3.0	6.7	14.3	2.2	25.6	21.7	
	9.0	6.2	20.6	2.2	20.0	18.6	
	17.0	6.6	48.0	1.0	77.7	359.3	
Aug-05 Ed Baker report	0.5			4.7		13.9	2.3
Aug-04 Ed Baker report	0.5			4.3		38.7	2.25
Aug-03 Ed Baker report	0.5			1.8		18.6	3.05

John's SNAPSHOT

Chlor. Nitrogen Phosphor Transparency

Test Date	Depth (M)	pH	Alk (mg CaCO ₃ /L)	ug/l	ug/l	ug/l	(Meters)
8/24/2011	0.5	7.1	8.6	6.0	25.9	16.4	3.7
	3.0	7.2	8.8	4.8	24.7	16.1	
	9.0	6.7	11.5	11.8	28.6	9.3	
	21	6.8	20.6	0.0	54.0	4.3	
9/1/2010	0.5	7.4	9.2	4.3	25.6	21.7	
	3.0	7.5	9.1	3.3	24.9	19.8	
	9.0	6.6	11.7	7.0	35.7	10.5	
	20.0	6.8	21.7	0.0	63.5	28.5	
9/1/2008						4.0	
AUG. 2007 CREATED 8/13/07	0.5	6.4	8.4	6.4	22.8	15.5	3.8
	3.0	6.3	8.2	6.5	22.5	15.5	
	9.0	6.2	10.6	5.5	34.5	12.4	
	19.0	6.2	21.3	0.0	67.8	27.9	
AUG. 2006 CREATED 8/13/07	0.5	6.5	17.0	4.2	33.9	12.4	3.0
	3	6.7	17.0	5.2	28.1	12.4	
	9	6.3	21.0	2.2	43.3	15.5	
	16.85	6.5	46.2	2.0	73.1	24.8	
AUG. 2005 CREATED 8/13/05	0.5			8.0		22.3	2.9
AUG. 2004 CREATED 8/13/04	0.5			3.6		5.3	3.3
AUG. 2003 CREATED 8/13/03	0.5			9.6		34.1	3.8
AUG. 2001 CREATED 8/13/02 2001 PALS report	0.5	6.8	8.0	3.7		4.0	3.9
	3	6.8	8.0	3.2		4.0	
	9	6.4	8.1	6.7		7.4	
	18	6.4	26.7	3.9		26.9	
AUG. 2000 CREATED 8/13/01	0.5			3.7		4.0	

Santuit (2) SNAPSHOT

Test Date	Depth (M)	pH	Alk (mg CaCO ₃ /L)	Chlor.	Nitrogen	Phosphor	Transparency
				ug/l	ug/l	ug/l	meters
8/22/2011	0.5	7.0	14.9	19.4	69.0	58	0.5
8/22/2011	1.5	7.0	15.1	20.2	73.5	55	
2-Sep-10	0.5	9.7	13.4	99.7	176.84	70	
2-Sep-10	2.0	7.8	14.0	48.98	135.07	55	
AUG.16, 2007	0.5	8.7	14.1	51.9	69.0	37	0.6
CREATED 8/13/07	1.7	7.0	14.2	75.8	75.4	59	
Aug 16 2006	0.5	8.9	26.4	77.5	127.7	83.6	0.3
	1.3	8.9	26.2	73.5	114.9	86.7	
Aug-05	0.5			32.0		71.7	0.7
Aug-04	0.5			6.3		94.8	0.8
Aug-03	0.5			11.4		55.8	0.7
Aug-02	0.5			6.5		23.2	2.5
Aug-01	0.5			2.2		17.3	2.3

Mashpee2 A SNAPSHOT

Test Date	Depth (M)	pH	Alk (mg CaCO ₃ /L)	Chlor. ug/l	Nitrogen ug/l	Phosphor ug/l	Transparency meters
8/17/2011	0.5	7.0	9.7	8.3	23.6	2.5	4.1
	3.0	6.91	9.8	5.8	25.7	15.2	
	9.0	6.44	12.9	4.1	20.6	13.6	
	29.0	6.67	28.5	1.1	127.1	408.9	
16-Aug-10	0.5	7.2	11.2	0.6	26.1	9	3.7
	3.0	7.1	11.2	0.4	24.2	13	
	9.0	6.5	12.4	5.0	25.4	16	
	29.0	6.6	22.0	8.8	57.1	221	
AUG. 2007 CREATED 8/15/07	0.5	6.6	12.4	2.2	22.7	12.4	3.0
	3.0	6.6	12.4	1.7	23.6	25	
	9.0	6.2	13.7	8.1	22.7	25	
	29.0	6.3	23.7	3.4	76.3	102	
Aug. 2006 created Aug 2007	0.5	7.3	25.2	6.3	38.9	12.4	2.2
	3.0	6.9	24.2	5.9	27.5	18.6	
	9.0	6.4	26.4	5.0	21.5	12.4	
	28.0	6.6	59.5	2.9	127.1	198.2	
18-Aug-05	0.5			5.4		9.3	3.4
19-Aug-04	0.5			5.0		9.0	3.8
1-Sep-03	0.5			3.8		9.3	4.0
Aug, 2002	0.5			5.2		35.9	2.4

Wakeby 2 B SNAPSHOT

Chlor. Nitrogen Phosphor Transparency

Test Date	Depth (M)	pH	Alk (mg CaCO ₃ /L)	ug/l	ug/l	ug/l	meters
8/17/11	0.5	7.0	10.1	7.1	22.8	9.9	3.3
8/17/11	3.0	7.0	10.1	5.5	31.1	16.7	
8/17/11	9.0	6.6	26.6	12.5	45.9	85.8	
8/17/11	19.0	6.8	33.7	6.1	136.7	421.9	
8/16/10	0.5	7.4	11.8	0.6	25.9	17.3	2.7
8/16/10	3.0	7.3	11.6	0.7	28.9	15.5	
8/16/10	9.0	6.7	34.9	3.0	116.6	294.6	
8/16/10	19.0	6.6	22.4	10.2	45.9	133.8	
8/20/09	0.5						4.1
8/18/2008	0.5						4.1
8/20/2007	0.5						3.2
AUG. 2007	0.5	6.5	12.6	4.4	23.1	15.5	3.2
CREATED 8/13/07	3.0	6.4	13.7	7.9	24.8	43.4	
	9.0	6.3	34.7	2.8	122.3	188.9	
	19.0	6.4	38.2	1.4	98.1	74.3	
Aug 30, 2006	0.5	6.9	25.0	3.4	31.0	15.5	2.8
	3.0	6.8	24.6	2.9	36.1	27.9	
	9.0	6.8	26.4	2.9	26.1	18.6	
	20.0	6.6	80.5	4.0	147.2	201.3	
8/22/2005	0.5			5.3		12.4	
8/25/2004	0.5			7.1		16.1	4.1
9/9/2003	0.5			5.6		31.0	3.9
Aug-02	0.5			6.0		27.9	2.9
Aug-01	0.5			6.3		72.8	2.7

Moody 2 SNAPSHOT

Test Date	Depth (M)	pH	Alk (mg CaCO ₃ /L)	Chlor. ug/l	Nitrogen ug/l	Phosphor ug/l	Transparency meters
8/22/11	0.5	6.4	3.2	1.1	26.4	1.5	3.7
	3.7	6.4	3.0	1.8	24.3	1.2	
Sept 2,2010	0.5	6.7	3.8		17.2	4.3	3.7
	2.7	6.7	3.9		20.3	6.8	
8/27/2007	0.5	5.9	1.3	0.6	19.1	6.9	3.7
	2.7	5.8	1.2	1.0	19.7	6.2	
Aug 16, 2006	0.5	5.9	3.0	1.2	23.0	12.4	3.65
	2.5	5.8	2.8	1.0	21.9	12.4	
Aug-05	0.5			2.1		9.6	2.4
Aug-04	0.5			2.3		11.2	1.7
Aug-03	0.5			8.9		27.9	0.9
Aug-02	0.5			7.6		24.8	0.9
Aug-01	0.5			6.4		17.3	1.7