

**Freshwater Beach Inspection
Annual Report
Summer Sampling 2011**



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2011 Public Bathing Beach Inspection Program Freshwater Beaches

In 2011, freshwater beaches were inspected by the Public Bathing Beach Inspection Program from June 30 to August 25. During that time, 158 public beaches were visited twice for routine sampling. Four new beaches in Canterbury were added this season. Additionally, 99 beaches at juvenile camps were inspected once during the summer by Drinking and Ground Water Bureau staff. Beach Program staff conducted 465 beach inspections during the summer of 2011. Of the 465 inspections, there were 310 routine inspections, 58 advisory inspections, 18 safety inspections, and 79 cyanobacteria inspections. Fifty-two advisories were posted at 38 beaches due to elevated *E. coli* levels above the state standard of 88 counts per 100 milliliters (Table 1). Only 16 of the beaches under fecal bacteria advisories in 2011 also had advisories in 2010. In 2011, eight beaches were posted for elevated bacteria more than once. Only three of those eight beaches also had at least one advisory in 2010.

Fourteen pre-emptive rainfall advisories were issued at Ahern State Park, only one more than in 2010 despite twice as much rain as in 2011. Although there was more rain in the summer of 2011, more rain fell in each rain event. Efforts to discourage geese from congregating in the watershed were put into place in 2011. Focused sampling in 2012 will determine if the pre-emptive rainfall advisory system is no longer needed.

The summer of 2011 was slightly warmer and much wetter than previous summers. June's average temperature, 64.4°F, was 0.5 degrees cooler than normal, and the total rainfall for the month was 3.92 inches, 0.82 inches more than the normal monthly rainfall of 3.1 inches. July was warmer and drier than previous years. The average temperature for July of 72.0°F, was 2.0 degrees warmer than average, and with 1.22 inches of rain was one-third of the average of 3.74 inches of rainfall. August was slightly warmer than average and much wetter than average. The average August temperature was 69.9°F, 0.6 degrees higher than normal. The rainfall for August, 7.52 inches, was more than twice the average rainfall of 3.18 inches. Of the 38 beaches with an advisory in 2011, 22 did not have advisories in 2010. In total, 50 beach advisories were posted in 2011, eight less than in 2010. However, more than a third less inspections were conducted this year compared to last year. Due to budget concerns, freshwater beach sampling did not begin until June 30. Because of the later start, beaches were only scheduled for two visits instead of three. Additionally, five beaches normally inspected by the beach program elected to sample on their own. An estimated sixteen more advisories could have been issued in 2011 if the normal sampling routine had been conducted.

The presence of cyanobacteria at freshwater beaches resulted in 10 advisories posted at 6 beaches in 2011 (Table 2). Four advisories were posted at Silver Lake State Park. Again, Camp Kettleford on Sebbs Pond in Bedford had a cyanobacteria advisory posted for an extended period, 29 days. The 2011 advisory was nine days longer than the 2010 advisory. Beaches that had blooms in multiple years in the past were not reported to have blooms in 2011. Most notably Pearly Pond Beach, Rindge; Robinson Pond, Hudson, and French Pond, Henniker did not have any advisories in 2011.

The lake warning for cyanobacteria developed in the summer of 2008 to alert lake users of cyanobacteria blooms without designated beaches or for areas of a lake away from the designated beach was again successful in 2011. Five cyanobacteria warnings were issued in 2011 (Table 3). Lakes with cyanobacteria warnings were re-inspected weekly through August. Only Forest Lake, Winchester, and Sebbins Pond, Bedford, had warnings in both 2009 & 2010.

The Beach Inspection Program was greatly impacted by budget issues this summer. Due to uncertainty in allocation of the general fund, our program was not able to hire a freshwater beach inspector until July 1. Each beach could only be inspected twice in 2011 instead of the three inspections conducted in past summers. Hopefully, the beach inspector will be hired earlier in the summer of 2012.

Goals accomplished during the summer of 2011:

1. Information technology staff added two new searches to the beach website so the public could find information on individual beaches and beach advisory details.
2. Health officers are now contacted by telephone when advisories are issued or removed from beaches.
3. In an effort to improve advisory communication between DES and beach managers after hours and on weekends, after hour phone numbers were added or updated for approximately 20 of 478 active contacts.
4. Seven more designated beaches were added to the Beach Inspection Program.

Goals to accomplish for 2012:

1. Continue to improve advisory communication between DES and beach managers after hours and on weekends by collecting more after hour phone numbers for active contacts.
2. Increase the visibility of the beach program so the public is better informed of the purpose and extent of sampling conducted each summer.

Table 1. *E. coli* advisories issued for New Hampshire Lakes in 2011. Advisories issued when a single sample was over 158 cts/100ml of water or two samples were over 88 cts/100ml of water. (#) indicates the number of advisories in 2010. (*) indicates advisory removed at the end of the swimming season.

Beach Name	Town	Sample Date	Post Start Date	Post End Date	<i>E. coli</i> (cts/100ml)			Total Days Posted
					LF	CR	RT	
Catamount Pond, Bear Brook State Park	Allenstown	8/16/11	8/17/11	8/20/11	>400	>400	230	3
Winchester Drive Beach	Barnstead	8/18/11	8/19/11	8/24/11	—	130	—	5
Tuttle Brook Twin Mt. Rec. Area (1)	Carroll	7/19/11	7/20/11	8/4/11	>400	—	152	15
Franconia Notch State Park Lake	Franconia	8/9/11	8/10/11	8/12/11	100	160	190	2
Griffin Town Beach (2)	Franklin	6/27/11	6/28/11	7/1/11	210	8	1	3
		7/20/11	7/21/11	7/23/11	130	110	64	2
		7/27/11	7/28/11	7/30/11	110	92	240	2
		8/22/11	8/23/11	8/25/11	40	42	>400	2
		8/29/11	8/30/11	9/1/11	130	140	61	7
Lagace Town Beach (1)	Franklin	8/22/11	8/23/11	8/25/11	180	200	230	2
		7/15/11	7/16/11	7/19/11	<2	90	>400	3
Ellacoya RV Park (1)	Gilford	7/12/11	7/13/11	7/15/11	—	270	—	2
Ellacoya State Park	Gilford	8/10/11	8/11/11	8/13/11	330	40	<2	2
Greenfield State Park Otter Lake Picnic Beach	Greenfield	8/8/11	8/9/11	8/11/11	160	>400	300	2
Sunset Lake Town Beach	Hampstead	6/8/11	6/10/11	6/15/11	—	—	109	5
		7/12/11	7/13/11	7/15/11	240	—		2
Emerald Beach	Hillsboro	7/14/11	7/15/11	7/29/11	>500	—	80	14
Beards Brook Town Beach (1)	Hillsborough	7/14/11	7/15/11	9/6/11*	>400	—	>400	53
St. Methodis Faith & Heritage Center	Hopkinton	7/14/11	7/15/11	7/19/11	138	—	260	4
Contocook Lake Town Beach	Jaffrey	8/18/11	8/19/11	8/23/11	94	40	92	4
Thorndike Pond Town Beach	Jaffrey	7/26/11	7/27/11	7/29/11	>400	—	>400	2
Ahern State Park	Laconia	7/12/11	7/13/11	7/15/11	20	390	140	2
Bartlett Town Beach (1)	Laconia	7/12/11	7/13/11	7/19/11	250	56	110	6
Endicott Park, The Weirs (2)	Laconia	7/12/11	7/13/11	7/22/11	260	84	45	9
Opechee Park Cove (1)	Laconia	7/12/11	7/13/11	7/15/11	220	350	>400	2
		8/10/11	8/11/11	8/16/11	60	190	290	5
		8/17/11	8/18/11	9/6/11*	100	310	390	19

Table 1. (con't) *E. coli* advisories issued for New Hampshire Lakes in 2011. Advisories issued when a single sample was over 158 cts/100ml of water or two samples were over 88 cts/100ml of water. (#) indicates the number of advisories in 2010. (*) indicates advisory removed at the end of the swimming season.

Beach Name	Town	Sample Date	Post Start Date	Post End Date	<i>E. coli</i> (cts/100ml)			Total Days Posted
					LF	CR	RT	
Wasserman Park Town Beach Lake Naticook	Merrimack	7/27/11	7/28/11	8/2/11	112.6	—	118.7	5
		8/11/11	8/12/11	8/16/11	218.7	—	224.7	4
Lucas Pond Town Beach (1)	Northwood	8/16/11	8/17/11	8/19/11	280	—	350	2
Northwood Lake Town Beach (2)	Northwood	6/16/11	6/17/11	6/21/11	18	—	424	4
Pawtuckaway State Park (1)	Nottingham	6/7/11	6/8/11	6/14/11	48	>400	1	6
Mill Pond (1)	Ossipee	8/17/11	8/18/11	8/20/11	130	—	150	2
Camp Runels Beach	Pelham	7/26/11	7/27/11	7/29/11	<2	—	>400	2
Long Pond Town Beach	Pelham	7/12/11	7/12/11	7/14/11	Sewage Leak			2
Camp Wiyaka Beach	Richmond	8/2/11	8/3/11	8/4/11	<2	—	>400	1
Pearly Lake Beach	Rindge	8/18/11	8/19/11	8/27/11	150	—	270	8
Arlington Pond Improvement Association Beach (1)	Salem	8/4/11	8/5/11	8/9/11	>400	—	>400	4
Camp Otter Beach (1)	Salem	7/27/11	7/28/11	7/30/11	130	—	130	2
Hermit Lake Town Beach	Sanbornton	7/12/11	7/13/11	7/15/11	>400	—	>400	2
		7/18/11	7/19/11	7/26/11	160	—	170	7
Dewey Town Beach	Sunapee	8/25/11	8/26/11	9/6/11*	28	190	8	11
Surry Mountain Rec Area	Surry	8/9/11	8/12/11	8/16/11	488	548	161	4
Richardson Park Beach on Swanzey Lake (1)	Swanzey	7/6/07	7/7/11	7/13/11	130	340	74	6
Village Pond Sand Dam Town Beach	Troy	7/26/11	7/27/11	7/29/11	110	—	>400	2
Mill Pond Town Beach (1)	Washington	7/8/11	7/9/11	7/12/11	120	—	130	3
		8/8/11	8/10/11	8/13/11		>400		3
Brewster Beach	Wolfboro	7/21/11	7/22/11	7/26/11	230	4	1	4
Wentworth State Park (1)	Wolfboro	7/21/11	7/22/11	7/26/11	>400	168	40	4

Table 2: Cyanobacteria advisory notices issued for New Hampshire Beaches in 2011.

Beach	Town	Dominant Cyanobacteria	Date Posted	Date Removed	Total Days Posted
Pawtuckaway SP	Nottingham	<i>Anabaena</i>	5/27/2011	5/28/2011	1
Silver Lake State Park	Hollis	<i>Anabaena</i>	6/15/2011	6/23/2011	8
Elm Brook Park	Hopkinton	<i>Oscillatoria</i>	6/20/2011	6/27/2011	7
Forest Lake TB	Winchester	<i>Anabaena</i>	7/27/2011	8/3/2011	7
Silver Lake State Park	Hollis	<i>Oscillatoria</i>	7/26/2011	8/5/2011	10
Long Pond TB	Pelham	<i>Anabaena</i>	8/1/2011	8/17/2011	16
Forest Lake TB	Winchester	<i>Oscillatoria</i>	8/10/2011		
Camp Kettleford	Bedford	<i>Oscillatoria</i>	8/11/2011		
Silver Lake State Park	Hollis	<i>Anabaena</i>	8/13/2011	8/24/2011	11
Silver Lake State Park	Hollis	<i>Anabaena</i>	8/30/2011	9/2/2011	3

Table 3: Cyanobacteria warnings issued for New Hampshire lakes in 2011.

Lake	Town	Dominant Cyanobacteria	Date Posted	Date Unposted	Total Days Posted
Jenness Pond	Northwood/Pittsfield	<i>Anabaena</i>	6/8/2011	7/12/2011	34
Winnepesaukee	Meredith	<i>Anabaena</i>	6/28/2011	7/1/2011	3
Forest Lake	Winchester	<i>Oscillatoria</i>	7/27/2011		
Halfmoon Lake	Barnstead/Alton	<i>Oscillatoria</i>	8/10/2011	8/19/2011	9
Sebbins Pond	Bedford	<i>Oscillatoria</i>	8/11/2011		