

Hempstead Harbor Water-Monitoring Report, January 31, 2010

Below is a copy of the water-monitoring report update for Hempstead Harbor covering the water-quality-sampling dates from October 7 through November 3, 2010. The narrative and data are provided by:



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This program is funded by the **Hempstead Harbor Protection Committee** • 516-677-5790 • www.hempsteadharbor.org

NOVEMBER 3

This was the final monitoring date for the 2010 season and included a full survey of 11 upper- and lower-harbor stations and collection of bacteria samples at 20 stations. Results for bacteria-sample analysis showed low numbers throughout the harbor but exceedances in enterococci levels (that is, >104 CFUs) at the following stations: CSHH #13B (dog leg at head of Glen Cove Creek), 127 CFUs; CSHH #14A (Powerhouse Drain outfall), 580 CFUs; and CSHH #15A and B (Scudder's Pond outfalls), 280 CFUs and 360 CFUs, respectively. At the start, there was an incoming tide (high tide at 9:01 AM). The weather was clear and cold with light breezes switching from NE to NW, 3-6 kts.

Rain, Temperature, and DO

No rain fell from October 28-November 2; rain fell on November 3 but after the monitoring period. **Air temperature** was a cool 4°C at about 8 AM and warmed to about 11°C by noon. **Water temperature** ranged at 11-12°C at the surface and 12-13°C at the bottom at most stations surveyed, but stations in Glen Cove Creek ranged at 13-14°C at surface and bottom. **Bottom DO** was at supersaturated levels at some stations, ranging at about 8-10 ppm at the bottom (surface DO ranged at 8-11 ppm) with no clear distinction between deep water and shallow stations.

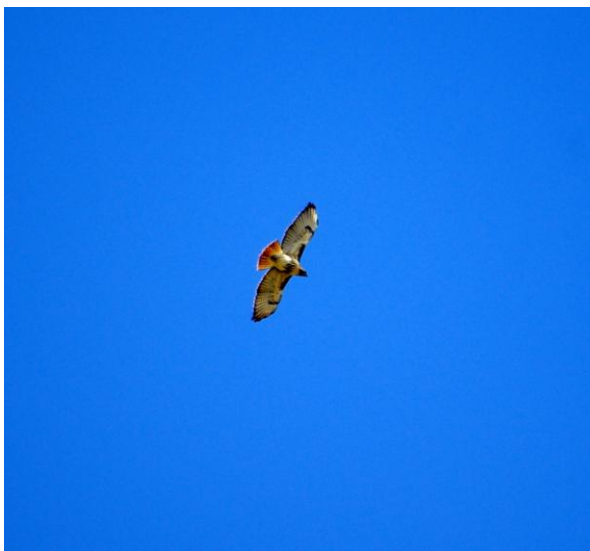
Color and Clarity

The water was calm and clear, and water color was judged to be a normal green throughout the harbor. Secchi depth ranged from about 2-3 m at most stations surveyed, with lower readings at the head of the harbor (1 m at CSHH #7) and at the head of Glen Cove Creek (1.5 m at CSHH #13).

Observations

Wildlife

No comb jellies were noted at any of the stations. During the survey, a radio report to the Coast Guard described the location of a dead whale off of Longbranch NJ. The birds we noted while sampling included 8 cormorants; about 17 mallards; 20 dozen Canada geese in the upper harbor and about 3 dozen flying. Three red-tailed hawks were flying over the area near the head of Glen Cove Creek.



One of three red-tailed hawks flying over at the head of Glen Cove Creek (photo by Jim Moriarity, 11-3-10)

OCTOBER 7, 13, 20, 28

October 7: The survey ended abruptly after the platform for the YSI meter slipped off and sank to the bottom at CSHH #1. Through the generous efforts of the Nassau County Marine Police and diving unit, we were able to retrieve the platform. We were fortunate that the dive team was in the area preparing for an assignment and agreed to help us out. We started on an incoming tide and recorded data for CSHH #1 only.

October 13: We began on an outgoing tide, conducting a full survey of 5 stations and collecting bacteria samples at 12 stations; the next high tide was at 4:15 PM. It was clear, and the wind was mostly out of the NE, 4-11 kts. Bacteria results were generally low throughout harbor with numbers increasing in Glen Cove Creek. Any CFU exceedances for fecal coliform and/or enterococci are generally at the head of Glen Cove Creek and the Powerhouse Drain and Scudder's Pond outfalls, and this was the case for the rest of the sampling dates in October. Exceedances or unusual events are noted on specific dates. For October 13, exceedances in bacteria levels were found at CSHH #14A (Powerhouse Drain outfall), 2200 CFUs for fecal coliform and 600 CFUs for enterococci; CSHH # 15A (Scudder's Pond outfall by Tappen Pool) 145 CFUs for enterococci, and at #15B (at Scudder's Pond weir) 1100 CFUs for fecal coliform and 109 CFUs for enterococci.

October 20: High tide, 10:18 AM; incoming tide at start of full survey of 11 stations and bacteria-sample collection at 20 stations. It was partly cloudy, and the wind was generally down with occasional light breezes from the S and W, 3-4 kts. Results for bacteria samples showed exceedances for enterococci at CSHH #14A (Powerhouse Drain outfall), 300 CFUs; CSHH #15A and B (Scudder's Pond outfalls), 150 CFUs and 200 CFUs, respectively.

October 28: High tide, 2:46 PM; there was an outgoing to slack tide at the start of full survey of 5 stations and collection of bacteria samples at 12 stations. The weather was partly cloudy with generally light breezes, SW-W at 3-6 kts. Results from bacteria-sample analysis showed high numbers at most stations and unusually high exceedances (i.e., >1000 CFUs for fecal coliform and >104 CFUs for enterococci) for stations in Glen Cove Creek and by Scudder's Pond and Powerhouse Drain outfalls. The samples were collected within about 24 hours of nearly a half-inch rain event. The following are the results for samples that exceeded the previously mentioned thresholds for CFUs of bacteria: CSHH #3, 200 CFUs, enterococci; CSHH #8, 280 CFUs, enterococci; CSHH #9, 400 CFUs enterococci; CSHH #10, 1500 CFUs fecal coliform and 1200 CFUs enterococci; CSHH #11, 16000 CFUs fecal coliform and 92000 CFUs enterococci; CSHH #12, 16000 CFUs fecal coliform and 9500 CFUs enterococci.



Duck blind in Motts Cove (photo by Jim Moriarity, 10-20-10)

Rain, Temperature, and DO

From October 1-31, a total of 146 mm of rain fell over 12 days (as compared with last year's monthly total of 175 mm over 11 days). More than half of the total (82 mm) fell on October 1, and 29 mm fell on October 14. No rain fell in the week prior to November 3. **Air temperature** during the sampling period was cooler at the beginning of the month than it was at the end: about 11-16°C on October 7, 13, and 20 compared with 20-22°C on October 28. **Water temperature** on October 7 was about 18°C at the surface and 19°C at bottom for the one station sampled; 17-18°C at surface and bottom on October 13; 14-16°C at surface and 15-16°C at bottom on October 20; 16-17°C at surface and bottom on October 28. **Bottom DO** levels were at about 7-8 ppm, 7-9 ppm, and 7-8 ppm, on October 13, 20, and 28, respectively; levels at CSHH #13 were generally slightly out of range from those of other stations, as is typically the case.

Color and Clarity

Water color was judged to be a normal green and very clear at most stations on the October monitoring dates. However, brown water was observed running over the spillway at the Powerhouse Drain outfall, and water color at the head of Glen Cove Creek was a light opaque green. Secchi-depth ranges were 2 at CSHH #1 on October 7; 1-3 m on October 13; 1-2 m on October 20; and 1-3 m on October 28.

Observations

Wildlife

October 13: When we boarded the boat, we were surprised to find a dead squid in the bilge. No comb jellies were visible at any of the stations. We saw a large school of baitfish in Glen Cove Creek and a huge school of what we thought were bluefish in the harbor with lots of birds working the water. When we approached one of the two fishing boats we saw, the fishermen told us they caught 8 blues (20-22 inches) in ten minutes. We saw one blue-claw crab in Glen Cove Creek. Among the birds noted were 2 dozen mallards near the power plant, 2 great egrets, 3 dozen Canada geese, and 2 blue herons.

October 20: Three sea gooseberries at CSHH #1 were the only comb jellies noted. Baitfish were seen by the Tappen Marina dock and the Glen Cove STP. Small shrimp, too numerous to count, were also seen at the Tappen Marina dock. Among the birds noted were 14 cormorants, 7 mallards, 3 great egrets, 3-4 dozen Canada geese at Scudder's Pond and about a dozen-and-a-half flying, 2 blue herons, 1 swan flying and 55 swans in the lower harbor.

October 28: No comb jellies were noted. It was becoming quiet on the water with only a few bird observations: 2 cormorants, about 2 dozen mallards, and 1 blue heron.

Striped Bass Survey

NY DEC staff did their last seining for the season in Hempstead Harbor on October 26 as part of the annual striped bass study for the NYS marine district. DEC marine biologist Jennifer O'Dwyer provided preliminary information on the seining and reported the following for six stations in the harbor:

... The water temperatures were beginning to drop. We had an average water temp of 15.6 C/ 60 F. The amount of grass shrimp and comb jellyfish had declined. The amount of algae was significantly reduced. Our catches declined as expected except for a large haul of young striped bass near the entrance of the harbor. Here are our totals:

Striped Bass = 105 (just 1 station)

Winter Flounder = 3

Bluefish = 1

Alewife = 8

Silversides = 1710

Killifish = 296

Lady/Calico Crab = 3

Spider Crab = 1

Rock Crab = 2

The winter flounder and bluefish were all young of the year. The striped bass were probably 1 and 2 years old, most being large enough for us to tag.



CSHH Water-Monitoring Program 2010

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH (ppm)		Air Temp (°C)	Secchi(m)	Turbidity (NTUs)	Depth (m) (Bottom)	Time (AM)	
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom						
CSHH #1 - Beacon 11														
11/3/10	11.29	12.83	26.13	27.25	8.47	8.33	8.0	8.0	4.0	2.3	1.17/1.20	5.7	8:15	
10/28/10	16.5	16.48	26.61	27.01	6.57	6.64	7.8	7.8	19.9	2.0	1.16/1.16	3.5	8:19	
10/20/10	14.75	15.76	25.43	26.46	7.75	7.65	7.9	8.0	10.6	2.2	0.84/1.13	5.0	8:20	
10/13/10	17.43	17.45	25.63	25.74	7.45	7.44	7.8	7.9	11.1	3.0	0.59/0.28	3.8	8:15	
10/7/10	18.12	18.86	25.91	26.67	7.32	6.47	7.9	7.8	13.9	2.0	1.55/1.83	3.7	8:00	
9/29/10	20.77	20.87	26.53	26.94	4.48	4.74	7.8	7.7	20.1	1.3	2.03/2.87	3.5	8:24	
9/22/10	19.91	20.33	25.83	26.58	7.83	7.47	8.0	8.0	21.0	1.5	1.29/1.96	3.4	7:50	
9/15/10	21.03	21.03	26.19	26.19	7.81	7.74	8.0	7.9	17.5	0.9	2.34/2.90	4.3	8:07	
9/8/10	23.05	23.02	26.17	26.54	4.26	3.48	7.6	7.5	24.3	1.0	3.02/2.81	3.9	8:20	
9/2/10	25.36	23.80	26.37	26.98	6.59	3.83	7.8	7.5	28.6	1.0	2.29/4.66	4.8	8:45	
8/26/10	21.67	21.98	25.70	27.10	4.76	3.35	7.6	7.4	21.9	1.3	1.97/2.73	3.3	8:05	
8/18/10	23.87	23.19	26.63	27.22	6.34	3.65	7.6	7.4	23.1	1.0	1.67/2.04	5.0	8:00	
8/11/10	24.69	23.24	26.28	26.82	3.7	2.24	7.4	7.4	24.7	0.8	3.08/3.16	2.7	8:01	
8/4/10	22.57	21.91	26.56	26.85	4.16	2.6	7.1	7.4	26.4	1.3	2.03/1.79	4.2	8:20	
7/28/10	24.78	22.69	25.36	26.26	4.01	2.73	7.7	7.5	27.4	1.0	2.84/2.84	2.9	8:40	
7/21/10	26.39	23.25	25.42	26.29	8.01	2.80	7.9	7.5	29.0	0.8	2.79/2.56	5.1	8:14	
7/15/10	23.78	23.09	25.11	25.45	2.76	2.71	7.4	7.4	24.1	1.5	1.87/1.48	3.2	8:26	
7/7/10	23.07	19.5	25.75	26.23	8.27	5.67	7.8	7.5	29.2	1.5	1.91/1.85	5.0	8:32	
6/30/10	22.70	22.50	24.88	25.20	7.54	7.91	8.0	8.0	19.7	1.0	2.77/2.87	3.0	8:43	
6/23/10	21.98	16.81	24.72	25.84	9.93	5.21	8.1	7.7	26.1	1.0	1.89/1.79	5.0	8:30	
6/16/10	17.90	18.10	No electronic meter.			7.5				21.1	1.0	2.3/1.85	4.0	9:00
6/9/10	19.67	16.46	23.32	24.81	DO probe malfunction		8.4	8.0	19.2	1.0	2.65/2.34	5.5	8:40	
6/2/10	18.03	17.16	23.45	23.90	4.93	6.09	7.9	7.9	21.2	1.0	3.88/3.54	4.3	8:55	
5/26/10	16.00	13.83	23.67	24.26	8.94	8.16	7.9	7.8	20.9	1.8	0.63/0.65	5.1	8:50	
5/20/10	13.36	12.21	22.69	23.95	9.23	8.84	7.7	6.7	15.3	1.5	2.36/2.31	5.3	9:25	
CSHH #2 - Bell Marker 6														
11/3/10	11.92	12.66	26.83	27.43	10.52	10.14	8.0	8.0	9.6	2.8	1.05/1.34	9.1	10:40	
10/28/10	16.40	16.20	27.35	27.75	7.99	6.40	8.0	7.8	19.0	3.0	0.56/0.32	8.0	8:45	
10/20/10	15.20	16.40	25.69	26.99	10.92	8.38	8.1	7.9	14.5	1.7	1.08/0.77	10.0	11:40	
10/13/10	17.87	17.87	26.43	26.44	7.87	7.83	8.0	8.0	11.5	2.0	0.69/1.47	6.7	8:44	
10/7/10	No data collected at this station--platform detached from sonde.													
9/29/10	20.89	20.90	27.36	27.54	6.15	4.96	7.8	7.7	20.3	1.5	1.08/1.51	8.1	9:00	
9/22/10	20.44	20.76	26.85	27.13	8.62	7.48	8.1	8.0	21.5	1.75	2.64/1.14	9.0	8:25	
9/15/10	21.26	20.90	27.01	26.91	6.95	7.26	7.8	7.8	17.9	2.0	1.14/2.11	9.1	8:38	
9/8/10	23.12	22.77	26.61	26.86	6.85	4.70	7.7	7.6	27.7	2.2	1.43/1.32	10.6	11:00	
9/2/10	25.12	23.14	26.55	26.89	11.20	2.53	8.2	7.4	28.7	1.0	5.54/3.32	8.7	9:25	
8/26/10	22.37	22.17	27.00	27.14	5.67	4.56	7.7	7.6	22.5	2.0	1.34/0.95	8.4	8:45	
8/18/10	24.12	22.97	27.16	27.39	10.33	3.65	8.2	7.5	23.8	1.0	1.80/2.25	8.6	9:15	
8/11/10	23.49	21.96	26.92	27.29	4.81	1.29	7.6	7.3	25.8	1.0	1.51/1.38	8.1	8:30	
8/4/10	22.75	21.25	26.60	27.00	6.23	1.15	7.7	7.3	26.7	1.5	1.51/1.23	9.3	8:48	
7/28/10	23.48	20.65	25.93	26.80	5.86	0.58	7.7	7.3	27.9	1.3	1.23/1.24	8.3	9:45	
7/21/10	26.62	21.18	25.83	26.56	8.80	1.00	8.1	7.3	30.4	1.0	2.32/1.81	9.6	10:14	
7/15/10	22.60	21.39	25.91	26.47	6.01	3.36	7.7	7.5	23.5	1.7	0.97/0.61	5.7	9:50	
7/7/10	23.91	17.63	25.65	26.52	10.35	2.43	8.2	7.3	30.0	1.5	1.63/1.85	8.3	9:27	
6/30/10	21.36	17.91	25.86	26.20	9.39	4.36	8.3	7.5	19.4	1.2	1.42/1.65	8.0	9:08	
6/23/10	20.44	16.27	25.59	26	10.45	5.01	8.2	7.6	25.6	1.0	1.14/1.22	9.2	10:30	
6/16/10	17.50	16.80	No electronic equipment.			6.00				20.1	1.6	2.03/1.38	7.0	9:25
6/9/10	Trouble with electronic meters--DO probe malfunction. No sampling at this station.													
6/2/10	19.47	16.54	23.10	24.34	7.95	8.20	8.3	8.0	21.3	1.3	2.52/1.78	6.9	9:30	
5/26/10	15.76	14.80	24.18	24.25	10.13	9.57	8.0	7.9	26.5	2.0	0.98/0.74	9.2	10:45	
5/20/10	14.96	11.33	23.24	24.42	9.30	7.94	7.8	7.7	21.1	2.0	1.44/1.27	7.4	10:40	



CSHH Water-Monitoring Program 2010

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH (ppm)		Air Temp (°C)	Secchi(m)	Turbidity (NTUs)	Depth (m) (Bottom)	Time (AM)
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom					
CSHH #3 - Glen Cove Creek, Red Marker													
11/3/10	12.19	12.72	26.82	27.29	11.20	10.25	8.1	8.0	9.1	3.0	0.8/1.12	5.4	11:00
10/28/10	16.49	16.54	26.51	27.01	7.88	7.63	7.9	7.8	19.2	2.5	0.79/0.66	3.3	9:05
10/20/10	15.59	15.85	25.82	26.49	10.14	9.34	8.0	8.0	15.5	1.9	0.67/0.62	5.3	11:25
10/13/10	17.89	18.00	25.75	26.35	8.06	7.82	8.0	8.0	13.0	2.3	0.31/0.46	3.5	9:35
10/7/10	No data collected at this station--platform detached from sonde.												
9/29/10	20.77	20.98	26.66	27.47	6.27	4.46	7.81	7.7	20.5	1.70	0.85/1.06	3.3	9:28
9/22/10	20.33	20.37	26.43	26.70	8.09	7.56	8.03	8.0	22.4	1.75	2.06/2.37	4.3	8:40
9/15/10	21.00	20.89	26.74	26.81	8.23	7.80	7.9	7.9	17.9	1.0	1.91/2.12	3.8	9:00
9/8/10	23.18	22.98	26.54	26.63	6.31	5.03	7.7	7.6	28.0	1.5	2.35/2.13	5.6	11:15
9/2/10	25.90	23.95	25.99	26.77	11.91	4.94	8.2	7.7	29.0	1.0	3.30/3.02	3.9	9:55
8/26/10	21.65	21.91	25.63	26.27	5.17	4.28	7.6	7.5	22.8	2.0	1.16/1.43	3.6	9:10
8/18/10	24.22	23.33	26.73	27.29	8.61	5.23	8.04	7.6	24.3	1.0	1.91/2.23	4.8	9:34
8/11/10	23.96	23.69	26.76	26.89	6.17	4.77	7.7	7.7	26.8	0.8	1.44/1.73	3.2	8:55
8/4/10	22.86	22.36	26.27	26.74	5.94	4.18	7.6	7.5	27.3	1.0	2.03/1.68	4.4	9:14
7/28/10	24.99	22.00	25.53	26.65	7.76	2.10	8.0	7.4	30.0	1.0	1.89/2.20	3.9	10:05
7/21/10	26.83	22.73	25.29	26.38	9.72	2.79	8.2	7.4	30.3	1.1	2.25/2.26	4.8	10:30
7/15/10	22.51	22.08	25.25	25.81	5.91	3.72	7.6	7.5	24.4	2.0	0.75/0.89	3.0	9:12
7/7/10	23.97	19.58	25.60	26.31	10.12	7.31	8.1	7.7	32.5	1.5	1.54/--	4.7	9:55
6/30/10	21.82	21.77	25.68	25.78	9.61	9.94	8.3	8.2	19.9	1.5	1.73/2.21	3.0	9:40
6/23/10	21.67	16.74	25.01	25.83	11.15	4.69	8.3	7.6	26.5	0.90	2.08/2.28	5.0	11:05
6/16/10	18.00	18.00	No electronic equipment.		6.50				22.1	1.5	1.46/1.28	2.5	10:05
6/9/10	No data collected at this station--trouble with electronic meter--DO probe malfunction.												
6/2/10	19.64	17.58	23.79	24.14	8.70	9.25	8.4	8.0	22.2	1.0	2.14/2.04	3.2	10:00
5/26/10	16.56	14.50	23.80	24.24	9.53	9.37	8.0	7.9	28.9	1.75	0.31/1.17	5.6	11:05
5/20/10	13.89	12.27	23.37	24.11	8.94	8.44	7.8	7.8	20.5	2.4	1.08/1.34	3.4	11:05
CSHH #8 - Glen Cove Sewage Treatment Plant Outfall													
11/3/10	12.57	12.85	25.41	26.96	10.59	9.82	8.0	8.0	10.0	2.0	1.22/1.35	4.0	11:30
10/28/10	15.91	16.26	26.26	26.69	8.26	7.73	7.8	7.8	20.0	1.0	2.71/2.03	2.6	9:26
10/20/10	15.86	15.63	25.24	26.04	9.03	8.67	7.9	7.9	15.9	1.8	1.01/1.03	4.5	11:09
10/13/10	18.41	18.16	25.69	26.15	7.04	7.23	7.9	7.9	13.3	1.2	1.25/0.62	2.5	10:00
10/7/10	No data collected at this station--platform detached from sonde.												
9/29/10	21.22	21.12	26.24	26.70	3.61	3.45	7.6	7.7	20.9	1.5	0.64/1.44	2.7	9:55
9/22/10	20.32	20.99	22.78	26.48	7.26	6.17	7.9	7.8	21.5	0.75	1.21/1.53	3.3	9:00
9/15/10	21.32	21.60	22.97	26.67	7.8	7.17	7.8	7.8	17.6	1	2.86/2.34	2.7	9:30
9/8/10	22.88	23.18	21.95	26.00	6.47	5.37	7.7	7.6	28.9	1	3.43/3.71	4.4	11:35
9/2/10	25.82	24.34	23.89	26.49	15.62	6.17	8.4	7.8	30.6	0.75	3.84/4.66	3.1	10:40
8/26/10	22.28	22.33	24.99	26.62	3.7	2.05	7.4	7.3	23.1	1.5	1.53/2.01	3.0	8:40
8/18/10	24.5	23.41	26.13	26.93	11.03	4.07	8.1	7.5	25.0	0.75	2.54/2.49	3.5	10:00
8/11/10	24.58	23.80	26.12	26.85	7.05	4.80	7.8	7.6	27.8	0.8	1.93/2.41	2.6	9:17
8/4/10	23.94	23.87	22.40	26.31	6.42	4.18	7.6	7.5	28.5	1.0	3.37/2.49	2.9	10:00
7/28/10	25.68	24.39	22.02	25.96	9.73	4.37	8.1	7.6	30.5	0.8	2.95/2.95	3.0	10:35
7/21/10	26.36	23.58	23.28	26.28	10.90	2.46	8.2	7.4	31.3	0.8	2.59/3.45	3.9	10:50
7/15/10	22.65	22.46	25.75	25.88	4.27	3.16	7.5	7.4	24.4	1.1	1.14/1.93	1.8	9:42
7/7/10	24.67	20.68	23.39	26.15	10.83	6.88	8.2	7.8	33.4	1.0	2.45/2.73	3.5	10:30
6/30/10	23.39	22.18	23.78	25.45	12.92	8.21	8.4	8.0	19.7	0.8	2.70/2.70	2.3	10:02
6/23/10	21.81	17.75	25.45	25.79	15.22	5.57	8.3	7.6	29.4	0.7	2.43/2.92	4.9	11:33
6/16/10	18.8	18	No electronic equipment.		7.25				23.1	1.5	1.31/1.86	2.3	10:20
6/9/10	No data collected at this station--trouble with electronic meter--DO probe malfunction.												
6/2/10	20.04	18.50	17.93	23.95	10.72	11.51	8.2	8.1	23.4	0.5	3.18	2.5	10:25
5/26/10	16.95	15.59	21.02	23.86	9.39	9.49	7.7	7.9	29.8	0.9	2.62/3.18	4.5	11:30
5/20/10	13.62	13.21	22.90	23.48	8.59	8.24	7.7	7.7	22.4	1.5	1.51/1.19	2.3	11:26
CSHH #13 - 60' West of the Mill Pond Weir													
11/3/10	13.88	13.53	19.41	27.02	9.86	8.27	8.0	7.8	10.8	1.50	2.97/2.55	2.2	11:50



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Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH (ppm)		Air Temp	Secchi(m)	Turbidity	Depth (m)	Time
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	(°C)		(NTUs)	(Bottom)	(AM)
10/28/10	15.80		25.80		5.64		7.5		22.3	0.4*		0.4	9:45
10/20/10	16.21	15.94	24.85	25.76	8.81	6.26	7.8	7.7	16.1	1.50	3.71/3.12	2.4	10:19
10/13/10	18.36	18.23	25.64	26.19	5.73	6.42	7.7	7.8	14.3	1.10	3.63/3.69	2.5	10:23
10/7/10	No data collected at this station--platform detached from sonde.												
9/29/10	20.80	21.18	24.21	26.11	4.48	2.49	7.6	7.5	21.6	1.20	2.33/3.11	0.9	10:15
9/22/10	19.88	21.18	19.72	26.27	6.24	3.88	7.6	7.5	22.5	1.75	2.29/3.52	2.9	9:20
9/15/10	21.01	21.36	23.29	25.79	4.93	4.98	7.5	7.5	19.4	1*	3.49/3.79	1.0	9:55
9/8/10	22.88	23.18	21.95	26.00	6.47	5.37	7.7	7.6	28.9	1.00	3.43/3.71	4.4	11:35
9/2/10	23.69	25.26	19.30	25.84	11.64	9.04	8.1	7.9	31.8	1.25	3.36/4.96	1.8	10:55
8/26/10	21.96	22.53	25.00	26.66	4.25	0.50	7.4	7.3	23.9	1.25	2.42/4.65	2.9	10:02
8/18/10	23.86	24.44	25.97	26.81	11.25	8.25	8.0	7.9	25.5	0.75	5.64/3.17	2.0	10:35
8/11/10	24.11	24.14	24.88	26.60	7.43	3.91	7.8	7.5	28.1	0.8	6.56/3.36	2.0	9:24
8/4/10	23.32	23.33	25.52	26.05	3.18	2.50	7.4	7.3	29.7	0.9	6.38/4.95	1.6	10:25
7/28/10	22.88	25.02	15.60	25.26	11.01	5.38	8.1	7.6	31.2	1.0	5.68/4.36	1.9	10:55
7/21/10	26.02	25.85	24.91	25.63	8.27	6.46	7.9	7.8	31.6	1.0	3.50/3.62	1.5	11:05
7/15/10	Tide too low--couldn't hold position for sampling at this station.												
7/7/10	22.81	20.27	25.69	26.03	6.80	1.67	7.7	7.3	34.2	1.0	2.61/2.45	3.5	10:50
6/30/10	20.33	21.04	15.59	25.40	9.24	3.55	7.9	7.5	20.0	1.0	3.06/4.06	2.3	10:18
6/23/10	21.14	19.10	23.91	25.34	9.98	4.39	8.1	7.4	28.9	0.7	3.12/3.02	2.1	11:50
6/16/10	18.00	18.00	No electronic equipment.		4.00				18.5	1.0	3.77/4.45	2.0	10:45
6/9/10	No data collected at this station--trouble with electronic meter.												
6/2/10	18.82	17.40	14.14	23.80	9.81	4.54	8.1	7.4	24.9	0.75	3.4/3.85	2.4	10:43
5/27/09	Barges blocking head of Glen Cove Creek--no access to CSHH #13.												
5/20/10	Barges blocking head of Glen Cove Creek--no access to CSHH #13.												
										*bottom			
CSHH #14 - 50 yds from Powerhouse Drain													
11/3/10	11.32	12.28	26.28	26.86	9.22	8.43	8.0	8.0	3.6	2.3*	1.02/1.02	2.7	8:40
10/20/10	14.74	15.14	25.51	25.79	8.61	7.77	7.9	7.9	14.3	1.8	0.64/1.06	1.9	9:45
9/22/10	20.22	20.27	26.50	26.50	7.14	7.16	8.0	8.0	22.1	1.5	2.34/2.13	1.6	9:55
9/8/10	22.99	22.91	26.65	26.65	4.52	4.03	7.6	7.5	27.7	0.75	5.05/5.18	2.4	10:28
8/11/10	22.76	22.60	27.02	27.03	2.07	1.97	7.3	7.3	29.2	1.8	1.75/1.24	4.1	10:20
7/21/10	25.69	25.27	25.43	25.78	6.03	5.12	7.7	7.6	30.0	0.8	3.17/3.17	2.0	9:45
										*bottom			
CSHH #15 - 50 yds from Scudders Pond Outfall, North of Tappen Pool													
11/3/10	11.64	12.81	26.19	27.24	10.31	10.01	8.0	8.0	9.2	2.5*	1.06/0.98	2.5	10:20
10/20/10	15.18	15.72	25.84	26.33	8.94	7.8	7.9	7.9	15.1	2.2*	0.68/1.12	2.6	10:10
9/22/10	19.85	19.83	25.88	25.89	7.85	7.87	7.8	7.9	21.9	2	1.97/2.32	2.3	9:40
9/8/10	22.89	23.07	26.30	26.34	5.84	5.09	7.6	7.6	27.5	1.2	2.85/2.34	2.6	10:46
8/11/10	23.89	23.83	26.41	26.41	6.2	6.2	7.6	7.6	27.0	1.0	no sample	1.7	10:07
7/21/10	25.72	24.67	25.73	26.03	6.08	4.18	7.8	7.6	29.8	1	2.9/3.68	1.8	10:01
										*bottom			
CSHH #4 - Bar Beach Spit													
11/3/10	11.20	12.67	26.25	27.16	8.87	8.39	8.00	8.00	5.9	2.3*	1.25/2.94	2.9	8:55
10/20/10	15.09	15.71	25.68	26.27	7.89	7.75	7.92	7.93	14.0	2.0	1.33/1.02	2.6	9:46
9/22/10	20.21	20.28	26.55	26.60	7.66	7.60	8.02	8.02	23.4	1.5	2.29/1.72	5.4	10:05
9/8/10	23.05	22.98	26.34	26.42	4.48	4.13	7.52	7.47	24.8	1.0	3.44/3.83	6.7	9:00
8/11/10	23.82	23.53	26.74	26.81	5.60	4.49	7.58	7.49	29.5	1.0	2.70/2.80	5.3	10:35
7/21/10	25.70	23.20	25.58	26.15	5.74	2.18	7.7	7.34	30.4	0.8	2.75/3.17	7.2	9:35
6/9/10	Trouble with electronic meter--no sample collection at this station.												
										*bottom			
CSHH #5 - Mott's Cove													
11/3/10	11.92	12.32	26.30	26.84	7.80	7.65	8.0	8.0	5.7	2.30	1.0/1.82	2.3	9:05
10/20/10	15.40	15.63	25.63	26.11	7.49	7.34	7.9	7.9	12.5	2.0*	1.36/1.36	2.3	9:31
9/22/10	19.99	20.03	25.68	25.79	7.68	7.83	8.0	8.0	22.7	1.25	3.37/3.63	1.6	10:15
9/8/10	22.98	23.06	25.62	26.04	4.18	3.93	7.5	7.5	25.6	1.0	3.56/3.89	1.5	9:24



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Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH (ppm)		Air Temp	Secchi(m)	Turbidity	Depth (m)	Time
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom	(°C)		(NTUs)	(Bottom)	(AM)
8/11/10	24.64	24.17	26.38	26.77	3.65	3.24	7.4	7.4	30.7	1.0	2.5/2.84	1.8	10:53
7/21/10	26.65	25.17	24.83	25.59	7.30	5.16	7.8	7.5	29.2	0.5	5.98	1.8	9:21
										*bottom			
CSHH #6 - East of Former Incinerator Site													
11/3/10	10.96	11.64	25.37	26.22	10.35	9.75	8.0	8.0	6.9	1.80	1.95/1.82	2.8	9:30
10/20/10	15.07	15.18	25.39	25.56	7.88	7.32	7.9	7.9	12.0	1.80	2.19/1.89	2.3	9:12
9/22/10	20.19	20.14	25.78	26.02	8.01	7.95	8.0	8.0	23.7	1.75	2.72/3.06	2.4	10:30
9/8/10	23.16	23.09	25.94	25.98	4.31	4.01	7.5	7.5	26.7	1.2	4.67/4.28	2.3	9:45
8/11/10	24.72	24.79	26.56	26.57	4.97	4.39	7.5	7.4	27.6	0.5	3.52	2.4	11:04
7/21/10	27.04	25.66	25.16	25.65	6.00	4.76	7.5	7.5	29.7	0.8	4.33/3.78	1.3	9:05
CSHH #7 - West of Bryant Landing (formerly site of oil dock)													
11/3/10	10.57	11.06	23.92	25.40	9.58	9.81	7.9	7.9	7.3	1.0	3.05/3.31	2.1	9:50
10/20/10	14.30	14.94	24.64	25.21	7.62	7.12	7.9	7.9	10.7	1.30	2.7/3.0	2.0	8:58
9/22/10	20.26	20.12	25.49	25.62	7.44	7.50	8.0	8.0	24.2	1.25	4.67/4.30	1.8	10:40
9/8/10	23.22	23.09	25.56	25.73	4.69	3.94	7.6	7.5	28.0	1.0	5.18/4.59	2.0	10:00
8/11/10	26.00	25.70	25.50	26.16	6.68	6.11	7.6	7.5	29.1	0.5	6.38	2.2	11:15
7/21/20	26.65	26.98	24.80	25.17	4.89	4.82	7.5	7.5	29.0	0.5	4.56	1.5	8:45