

Water-Monitoring Report, October 27, 2006

Below is a copy of the sampling report update for Hempstead Harbor for September 21 through October 26, and it is the **last report for the 2006 water-monitoring season**. The narrative and data are provided by:



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The water-monitoring season for 2006 began on April 21, 2006, with a survey of all of the monitoring stations in Hempstead Harbor that have been established since the inception of the Coalition to Save Hempstead Harbor's Water-Monitoring Program in 1992. Weekly monitoring began on June 1. This year, the Hempstead Harbor Protection Committee (HHPC) took over responsibility for fully funding the program, and the Coalition to Save Hempstead Harbor will continue to coordinate the program as the HHPC's subcontractor.

SEPTEMBER 21 and 28

Wind and waves on September 21 prevented sampling at CSHH #2, but an incoming tide made it possible to conduct a full survey at lower-harbor stations. On September 28, a full survey was conducted at upper harbor stations, but an outgoing tide prevented sampling in the lower harbor; the low tide made it possible to see all of the discharge pipes in Glen Cove Creek that have had unusual flows or contributed added sediment to the creek.

Temperature and DO

Air temperature on September 21 ranged from about 16°C to 18°C during the period of water sampling, and water temperature was about 21°C at both the surface and bottom at the upper- and lower-harbor stations. On *September 28*, air temperatures were warmer than those the preceding sampling date, ranging from about 19°C to 21°C during the period of water sampling, but water temperatures dropped a bit from the preceding week, hovering around 20°C at both surface and bottom. DO reached supersaturated levels for both weeks. On *September 21*, DO ranged from 8.1 to 9.3 ppm at the surface and from 8.2 to 9.7 ppm at the bottom; on *September 28*, surface DO ranged from 8.2 to 9.3 ppm, and bottom DO ranged from 4.6 (at CSHH #2) to 9.1 ppm (at CSHH #8).

Color and Clarity

On *September 21*, water color was an abnormal brown, and Secchi depth was less than a meter throughout the harbor—probably as a result of the agitation from wind and waves. On *September 28*, water color was a normal green, Secchi depth was at about 1 meter throughout the harbor, but the turbidity level was high, and it appeared that a plankton bloom was in process.

Observations

Wildlife

September 21: Fish were jumping, and there was a lot of bird activity: 1 belted kingfisher; 4 ospreys; 24 swans, 14 ducks; 6 egrets; 2 blue herons; 3 cormorants were noted in addition to dozens of terns, gulls, and another 50 cormorants or so on a barge with a small crane in the lower harbor off the western shore by the old oil dock. On *September 28*, comb jellies were noted throughout the harbor, both sea walnuts and sea gooseberries. Birds noted included 4 cormorants, 3 ducks, 2 swans, 2 blue herons, and 1 egret.

Human Activities

About 20 barges were tied up by the gravel operation on September 21, and, on the incoming tide, three tugs were pushing barges in or out of the creek and harbor. On September 28, 26 barges were tied up near the gravel operation on the west shore of the harbor.

Floatables

Although no floatables were noted on September 21, 2 cups, 3 beverage bottles, 4 plastic bags, and a piece of plastic were noted in Glen Cove Creek on September 28.

OCTOBER 5- OCTOBER 18

On October 5, high wind and waves prevented sampling at CSHH #2, the station closest to Long Island Sound, but tidal conditions were good for picking up samples for bacteria analysis from the lower harbor. It was reported that on Friday, October 29, a lionfish was seen in Oyster Bay along with dozens of butterfish (the butterfish had been seen in Oyster Bay over the previous two weeks). There were no reports of these fish in Hempstead Harbor. On October 12, all of the discharge pipes that have been monitored near the STP outfall were visible, and two had unusual flow; additional samples were taken. On October 18, the harbor was exceptionally calm and the surface was flat; what appeared to be large pollen slicks were noted in the lower harbor.

Temperature and DO

October 5: Air temperature ranged from about 16°C to 17°C during the period of water sampling, and water temperature was between 19 and 20°C at both the surface and bottom at the upper-harbor stations. DO ranged from about 8 to 10 ppm at the surface and from 7.7 to 9 ppm at the bottom.

October 12: Air temperatures hovered around 18°C during the period of water sampling, and water temperatures nearly the same as air temperatures. DO ranged from 7.1 to 8.6 ppm at the surface and from 6.6 to 7.1 ppm at the bottom.

October 18: Air temperatures remained relatively warm, from about 19 to 20°C during the sampling period, but water temperatures decreased from the previous week, ranging from about 16.5 to 17°C at both the surface and bottom. DO reached supersaturated levels, ranging from about 8 to 10 ppm at the surface and from about 7.9 to 9.7 ppm at the bottom.

Color and Clarity

On October 5, 12, and 18, water color was a normal green. Secchi depth ranged between about a half meter to 1 meter on October 5. The water was exceptionally clear on October 12, with Secchi depth ranging from 1.5 to 2.5 meters. Secchi depth on October 18 was at 1.2 meters at all sampling stations in the upper harbor.

Observations

Wildlife

October 5: Comb jellies—sea walnuts and gooseberries; 23 cormorants, most on the barge with the small crane in the lower harbor; 22 swans; 2 egrets; 2 blue herons.

On October 12: Comb jellies, more sea gooseberries than sea walnuts; 5 cormorants, 14 ducks (mallards); 3 blue herons; about 30 geese flying.

October 18: Comb jellies, both sea walnuts and sea gooseberries; 14 cormorants (most in the lower harbor on the barge with the small crane); 2 ducks; 39 swans; 1 heron; 2 egrets.

Human Activities

The usual barges were tied up off the western shore of the harbor—about 14 on October 12 and 17 on October 18. On October 12, a tug and barge were anchored off of the Legend development off the eastern shore of the harbor, and a crane at the asphalt plant on the south side of the creek was emptying a gravel barge. On October 18, 5 power boats were noted with fishermen, and fishermen were fishing off of the piers on both the west and east side of the harbor and from Tappen Beach; 17 barges were tied off of the gravel operation on the western shore of the harbor; and the sailboat "Southern Comfort," which had been tied up for several weeks off the floating dock for Steamboat Landing was gone.

Floatables

Fewer floatables were noted on October 5—1 bottle in the creek; 2 beverage cans, 1 beverage bottle, and one small can were noted on October 12; and 1 ball and 1 piece of paper were noted in the creek on October 18.

OCTOBER 26—LAST SAMPLING DATE FOR 2006

It was cold and windy! Air and water temperature dropped precipitously from the preceding week. Wind and waves prevented sampling at CSHH #2, the station closest to Long Island Sound, and the very low tide (seemed like the low of a moon tide) prevented sampling in the lower harbor.

Temperature and DO

Air temperature at the first station was 7.4°C and warmed up to 9.2°C during the period of water sampling, and water temperature ranged between about 11 and 13°C at both the surface and bottom at the upper-harbor stations. DO reached supersaturated levels at surface and bottom (10.2 ppm and 9.7 ppm, respectively) for CSHH #1, but was 8.7 ppm and 8.1 ppm for CSHH #3 and #8, respectively. Bottom DO for CSHH #3 and #8 was at 8.6 and 7.9, respectively.

Color and Clarity

Water color was a normal green, and Secchi depth ranged from 1 to 1.9 meters.

Observations

Wildlife

No comb jellies were visible. Bird activity was light—although there were dozens of geese (about 5 dozen) on Bar Beach and Hempstead Harbor Beach (about 2 dozen). There were also numerous gulls throughout the harbor. In addition, the following were noted: 12 ducks (mallards); 2 swans; 1 blue heron.

Fishing Report

Our Hempstead Harbor fishing contact, Pete Emmerich, reported on October 25 that he had been out fishing in Long Island Sound with a friend the previous two weekends for black fish and had only "limited success." Pete also reported the following:

Over the past few weeks, I had been jigging schoolie stripers under the barges. There are fish there but not in the big numbers we would expect. Seems like there is a lack of bait. I have seen only one school of adult bunker in the harbor last Friday and I do not see any birds working bait with fish on them yet this year. It is almost like we are still in a summer rather than a fall pattern.

We have been black fishing in the sound in water depths from 25 to 50 feet using standard methods and using green crabs for bait. These friends who have been fishing shallow water off the Rye area using Asian crabs have done much better....

We are not seeing any of the bluefish blitzes we should be seeing, again, where is the bait? I do not know of anyone who has gone or has had success fishing for larger stripers with bait, as again, where is the bait?

Pete wondered whether the Asian shore crabs were becoming the bait of choice for local fish. He was also surprised at the small number of green crabs he caught in a couple of traps at Tappen marina and wondered whether the Asian shore crabs were pushing out other crab species.

On October 27, Pete reported that a friend of his caught 10 bass (one was 27 inches long) and a few bluefish.

DEC staff, who were doing the last monthly seining of north shore bays on October 26 as part of the striped bass survey (May-October), caught mostly silversides and killifish in Hempstead Harbor and nearby bays.

Human Activities

About 27 barges were tied up by the gravel operation on the western shore of the harbor. There was a tug and barge by the Mobil terminal; three barges and 4 cranes working by the HinFin/TNH property; the barge with part of the old Glen Cove ferry terminal on it is still in the middle of the channel off the HinFin/TNH property, and sitting on a sandbar during the low tide; the barge with floating docks tied to it is still tied off of the KeySpan property near the middle of the channel; the sunken sailboat is still in the mooring field between the Hempstead Harbor Club and the Sea Cliff Yacht Club with the mast still visible at an angle out of the water; a crane at the asphalt plant in Glen Cove Creek was unloading a gravel barge; 3 DEC staff were seining at the bar below Bar Beach and east of the Sea Cliff Yacht Club.



CSHH Water-Monitoring Program 2006

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH	Air Temp (°C)	Depth (m) (bottom)	Time
	Surface	Bottom	Surface	Bottom	Surface	Bottom				
CSHH #1 - Beacon 11										
6/1/06	16.63	15.36	25.02	25.17	8.17	8.48	7.01	23	2.2	9:11
6/8/06	17.52	17.5	24.00	24.74	8.00	7.00	7.35	18.9	4.3	9:05
6/15/06	18.48	18.38	24.22	24.39	9.36	8.78	7.70	21.0	2.2	9:35
6/22/06	20.1	16.67	25.22	25.97	7.69	5.09	8.22	25.2	4.6	9:15
6/29/06	19.16	18.84	25.72	25.84	5.03	4.71	7.90	24.0	2.3	8:35
7/7/06	22.04	20.56	24.39	25.27	10.03	4.79	8.00	21.6	4.7	9:06
7/13/06	21.10	20.35	24.99	25.11	4.40	4.22	8.00	25.6	1.1	8:40
7/20/06	23.26	19.84	25.58	26.52	7.48	3.77	7.80	23.8	4.8	8:50
7/27/06	23.40	22.36	25.94	26.25	4.27	2.30	N/A	25.7	1.7	8:40
8/2/06	26.14	24.62	25.03	25.33	6.28	3.32	8.00	32.1	3.3	8:45
8/10/06	24.89	23.54	25.47	25.86	4.28	2.48	7.00	25.5	2.9	8:50
8/17/06	24.95	23.35	25.62	26.19	5.23	4.21	7.38	24.0	4.1	9:10
8/24/06	25.06	24.58	25.71	26.10	5.22	3.47	7.40	21.1	2.9	8:30
8/31/06	22.16	22.12	25.53	25.56	3.56	2.97	7.50	16.2	3.6	8:44
9/7/06	21.46	21.12	25.26	25.78	7.89	6.05	7.60	21.3	4.1	8:48
9/14/06	20.68	20.66	25.25	25.43	6.60	6.46	7.60	20.0	2.3	9:20
9/21/06	20.66	20.62	25.19	25.28	8.82	8.70	8.00	15.7	3.8	8:50
9/28/06	19.83	19.91	24.91	25.12	8.18	7.92	7.90	18.6	2.7	8:45
10/5/06	19.25	19.33	25.52	25.89	7.99	7.64	7.90	15.5	5.2	8:55
10/12/06	17.87	18.13	24.18	25.29	7.41	6.70	8.00	17.7	3.0	8:37
10/18/06	16.50	16.60	25.58	26.20	9.00	7.89	7.90	18.5	4.9	9:15
10/26/06	11.22	11.58	24.43	24.87	10.23	9.68	7.90	7.4	2.9	8:30

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH	Air Temp (°C)	Depth (m) (bottom)	Time
	Surface	Bottom	Surface	Bottom	Surface	Bottom				
CSHH #2 - Bell Marker 6										
6/1/06	17.09	16.27	25.89	25.95	10.99	10.53	7.47	23.0	6.5	9:45
6/8/06	17.53	17.17	25.26	25.45	8.54	7.43	7.46	18.6	6.2	10:45
6/15/06	18.47	16.48	25.01	25.73	11.02	6.12	7.86	22	6.2	10:05
6/22/06	19.85	16.63	25.59	26.07	9.97	7.23	7.93	26.3	8.6	10:20
6/29/06	18.74	18.10	26.14	26.25	8.50	7.37	7.89	23.7	6.4	9:20
7/7/06	22.25	17.57	24.82	26.12	10.06	4.50	8.00	26.0	7.9	11:26
7/13/06	19.58	17.49	25.89	26.52	6.61	5.87	7.50	26.2	6.9	9:10
7/20/06	21.54	20.03	26.34	26.56	7.90	4.62	7.80	22.6	7.4	10:05
7/27/06	22.32	19.59	26.30	26.83	7.00	0.98	7.80	27.2	7.4	9:10
8/2/06	25.20	19.71	25.49	26.20	8.74	0.14	7.90	32.3	7.5	9:40
8/10/06	23.24	22.98	26.13	26.32	6.96	2.15	7.50	28.7	8.7	10:25
8/17/06	23.80	22.30	26.10	26.48	8.75	2.27	7.95	23.4	7.5	9:50
8/24/06	23.97	22.63	26.39	26.67	6.61	3.06	7.59	21.7	6.0	9:03
8/31/06	No water sampling at this site because of high wind and waves (2-3 foot waves).									
9/7/06	20.90	20.76	25.86	26.11	8.38	5.91	7.90	21.4	8.1	9:20
9/14/06	20.35	20.27	25.04	26.13	7.99	7.39	7.80	19.0	6.7	9:55
9/21/06	No water sampling at this site because of high wind and waves.									
9/28/06	20.05	20.21	25.76	26.48	8.63	4.63	7.90	20.6	6.0	9:15
10/5/06	No water sampling at this site because of high wind and waves.									
10/12/06	18.26	18.33	26.22	26.52	8.55	7.07	7.80	18.2	6.6	9:08
10/18/06	17.01	16.98	26.07	26.12	7.95	7.52	7.70	19.6	8.7	9:40
10/26/06	No water sampling at this site because of high wind and waves.									



CSHH Water-Monitoring Program 2006

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH	Air Temp (°C)	Depth (m) (bottom)	Time
	Surface	Bottom	Surface	Bottom	Surface	Bottom				

CSHH #3 - Glen Cove Creek, Red Marker

6/1/06	18.07	15.16	25.20	25.96	10.66	9.10	7.60	24.0	3.2	10:15
6/8/06	17.67	17.17	24.25	25.22	8.23	8.5	7.46	19.4	4.79	11:10
6/15/06	18.69	18.65	24.74	24.74	9.95	11.94	7.89	23.0	2.6	10:30
6/22/06	19.81	17.00	25.43	25.97	9.23	5.11	7.92	25.1	4.9	10:45
6/29/06	19.18	18.85	25.95	26.09	7.62	7.10	7.88	25.4	2.9	9:55
7/7/06	22.46	20.46	24.34	25.39	10.31	5.72	8.00	25.3	4.2	11:44
7/14/06	21.01	19.87	23.72	25.49	7.48	5.24	7.50	25.7	2.9	9:35
7/20/06	20.56	19.00	26.01	26.69	7.39	2.93	7.80	22.9	5.0	10:30
7/27/06	23.40	21.94	25.90	26.35	7.65	4.14	7.80	27.1	3.4	9:35
8/2/06	26.89	23.31	24.89	25.48	8.64	4.85	7.70	34.7	3.3	10:06
8/10/06	24.23	22.91	25.79	26.21	6.64	3.90	7.00	29.0	4.9	11:45
8/17/06	23.95	23.39	25.50	26.27	7.74	7.44	7.76	25.5	1.8	10:16
8/24/06	24.13	24.38	26.02	26.31	7.53	7.08	7.70	21.9	3.9	9:23
8/31/06	21.71	21.95	25.75	26.38	3.69	2.37	7.50	16.2	3.8	9:30
9/7/06	21.23	21.03	25.46	25.98	9.32	7.08	7.90	21.6	5.1	9:50
9/14/06	20.45	20.61	24.98	26.18	8.40	6.50	7.70	19.0	3.4	10:15
9/21/06	20.42	20.48	25.67	25.67	9.19	9.68	8.20	17.8	4.5	9:40
9/28/06	20.30	20.20	25.41	26.15	9.30	6.75	8.00	21.0	3.4	9:45
10/5/06	19.57	19.57	25.04	26.14	9.81	8.97	8.10	16.5	5.3	10:50
10/12/06	18.10	18.49	25.66	26.37	7.85	6.94	7.80	18.5	3.3	9:30
10/18/06	16.65	16.65	25.36	26.02	9.78	9.72	8.10	19.9	5.4	10:08
10/26/06	12.92	12.94	26.13	26.14	8.65	8.58	8.00	9.2	3.0	9:30

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH	Air Temp (°C)	Depth (m) (bottom)	Time
	Surface	Bottom	Surface	Bottom	Surface	Bottom				

CSHH #8 - (Glen Cove Sewage Treatment Plant

6/1/06	18.52	17.30	22.89	25.41	9.44	10.16	7.51	26.0	1.4	10:35
6/8/06	17.79	17.43	20.91	24.73	8.22	7.67	7.44	19.6	3.2	11:30
6/15/06	19.83	18.30	22.98	24.94	11.09	10.36	7.96	24.0	1.4	10:50
6/22/06	20.68	18.90	21.49	25.62	8.07	6.62	7.90	26.0	3.2	11:05
6/29/06	19.61	19.12	21.42	25.64	6.19	5.08	7.83	27.0	1.0	10:30
7/7/06	22.76	21.79	22.09	24.79	8.45	7.75	8.00	26.0	2.5	12:06
7/14/06	22.37	20.90	20.58	24.60	7.25	5.17	7.50	25.8	1.4	9:50
7/20/06	22.36	20.41	24.91	26.45	6.64	4.18	8.00	25.2	2.9	10:55
7/27/06	23.83	22.62	23.90	26.21	6.84	3.22	N/A	28.3	2.2	10:00
8/2/06	25.88	25.49	22.39	25.23	10.34	7.90	7.60	34.3	1.6	10:40
8/10/06	23.92	24.15	22.40	25.43	7.08	6.66	7.50	28.0	3.7	11:20
8/17/06	24.26	24.10	24.95	25.96	7.23	6.60	7.65	24.0	2.2	10:45
8/24/06	24.52	24.12	23.23	26.25	7.03	4.92	7.61	22.6	2.7	9:55
8/31/06	21.73	22.15	24.25	25.69	3.81	3.17	7.50	17.0	1.9	10:00
9/7/06	21.37	21.31	23.59	25.07	8.71	8.76	7.70	23.3	3.9	10:25
9/14/06	20.86	20.84	23.64	25.71	7.52	6.98	7.40	18.9	1.6	10:40
9/21/06	20.33	20.14	20.40	25.29	8.14	8.19	7.90	17.5	3.2	10:08
9/28/06	20.39	20.32	24.18	25.36	9.18	9.08	7.50	21.1	2.2	10:20
10/5/06	19.92	19.75	24.32	25.66	9.16	8.95	7.90		3.6	11:25
10/12/06	18.64	18.95	24.66	26.38	7.14	6.59	7.80	18.0	1.6	10:04
10/18/06	16.91	16.55	23.23	25.78	10.02	9.24	7.40	19.9	3.7	10:36
10/26/06	13.38	13.22	24.14	26.06	8.07	7.94	7.50	8.8	1.7	10:00



CSHH Water-Monitoring Program 2006

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH	Air Temp (°C)	Depth (m) (bottom)	Time
	Surface	Bottom	Surface	Bottom	Surface	Bottom				

CSHH #4 - Bar Beach Spit

6/8/06	17.75	17.49	23.83	24.59	8.14	7.17	7.36	18.8	3.6	10:30
7/7/06	23.29	18.79	24.67	25.67	7.58	2.90	8.00	24.3	6.6	11:02
8/24/06	24.48	24.28	26.14	26.22	4.93	3.96	7.49	24.9	2.9	10:38
9/21/06	20.60	20.61	25.33	25.32	8.61	8.62	8.00	17.9	5.4	10:50

CSHH #5 - Mott's Cove

6/8/06	17.60	17.50	23.69	24.00	7.87	7.43	7.39	20.0	1.7	9:40
7/7/06	22.55	22.52	24.12	24.32	7.12	7.11	8.00	23.6	1.5	9:43
8/24/06	25.27	25.05	25.60	25.90	4.48	4.10	7.36	24.8	1.6	10:52
9/21/06	20.36	20.61	24.57	25.14	9.20	9.02	8.00	18.3	1.8	11:15

CSHH #6 - East of Former Incinerator Site

6/8/06	17.71	17.46	23.02	23.75	7.42	7.17	7.37	19.5	2.0	9:55
7/7/06	22.65	22.67	23.80	24.09	7.88	7.41	8.00	24.4	1.7	10:05
8/24/06	no sampling because of osprey rescue									
9/21/06	20.67	20.71	24.97	24.98	9.30	9.72	8.00	17.8	2.2	11:35

CSHH #7 - West of Bryant Landing (formerly site of oil dock)

6/8/06	16.69	17.42	16.75	22.99	6.85	6.59	7.23	19.0	1.9	10:10
7/7/06	22.70	22.63	23.10	23.93	9.55	5.92	8.00	25.1	1.6	10:30
8/24/06	no sampling because of osprey rescue									
9/21/06	19.69	19.77	23.74	23.89	9.37	9.60	7.90	17.5	1.8	11:50

