

## Water-Monitoring Report, November 12, 2007

Below is a copy of the sampling report update for Hempstead Harbor through October 31 for the 2007 water-monitoring season. 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](http://www.hempsteadharbor.org)

The water-monitoring season for 2007 began on April 20, 2007, in Hempstead Harbor with a survey of all of the monitoring stations established since the inception of the Coalition to Save Hempstead Harbor's (CSHH) Water-Monitoring Program in 1992. Eight stations have been selected for full surveys, although there are a total of 13 stations at which samples are also collected for bacteria analysis that is conducted at the Nassau County Department of Health lab. (CSHH #13 was added this year and is located at the head of Glen Cove Creek by the Mill Pond weir; this was set up to as part of a continued effort to understand the source of pathogen inputs to the creek and harbor.) If unusual flows are visible at other discharge pipes, additional samples are collected for bacteria analysis.

### OCTOBER 31—Final weekly sampling date for 2007

The final sampling date was clear and cool with a light SW-03-kt breeze that picked up to S-07 kts. The water surface started with ripples and built to small waves toward the sound. Accumulated rainfall for the preceding week was 42 mm. The tide was outgoing with about 8 hours to the next high tide (at about 4PM). Because of the low tide, no sampling was conducted at lower-harbor stations.

#### Temperature and DO

Air temperature dropped to 10°C to start, climbing to about 13.7°C toward the end of the sampling period. Water temperature held at about 15-16°C at the surface and also at the bottom. Bottom DO ranged from about 4.7 ppm at CSHH #1 to 5.2 ppm at CSHH #2 and 5.5 ppm near the STP (CSHH #8; because of a large boat nearby, we were about 20 feet east of our usual site by the STP for YSI sonde measurements).

#### Color and Clarity

The water was extremely clear and a normal but pale green throughout the upper harbor. Secchi depth ranged between 2 m and 3m.

#### Observations

##### Wildlife

Numerous comb jellies (mostly sea gooseberries) were visible at CSHH #1 and a few were also visible at CSHH # 3. This year, the comb jellies arrived unusually late in the season, and it was also unusual to see them on our last sampling date for the season. Large schools of spearing and peanut bunker were seen throughout Glen Cove Creek.

Birds noted included 5 cormorants, 1 dozen mallards, 2 swans, 2 blue heron, and about 4 dozen Canada geese.

##### Fishing Report

On November 6, Pete Emmerich reported:

*Fall is bringing in some fine fishing. I stopped by the barges last Wednesday [October 31] and jigged up 35 schoolie bass to 24 inches. I understand the schoolie fishing has also been fine over in front of Lowe's near the marina openings. I had a phone call last Thursday from a friend who was driving down Shore Road and he told me the entire harbor was white with fish breaking—blues and bass. The very good news is there is a fantastic black fish bite on this year. Blacks have been caught from opening day and people are catching many, and of good size. Really, the water is too warm and this has not happened in recent years, but right now the blacks are making a good showing of themselves.*

*A friend of mine, a fine fisherman, is about to retire, and he gave up the GPS numbers for a wreck off Falaise that no one knew about. It is an old wooden structure, and I assume it is an old barge. This wreck is holding an unbelievable amount of blacks up to 6 pounds that I know of... I usually don't find blacks so far in the harbor....*

*Human*

Four Gladsky barges (one had a large crane on it) were tied off of the vacant KeySpan property; 19 Buchanan barges were tied off of the Port Washington gravel operation along with 3 tugboats, and a 4<sup>th</sup> tug was pushing a barge into place; and 2 barges were tied off of the bulkhead by Rayson Asphalt in Glen Cove Creek. Four powerboats left the harbor, and fishermen were fishing off the beach near Tappen pool. Sea Coast Marine Construction equipment was removing debris from the Doxie site to a barge below in Glen Cove Creek. An Aqua Survey boat was taking depth readings in the creek for EPA.

The pipes adjacent to the STP were visible because of the low tide; there was no flow from #9 and a steady opaque flow from #10.



*Large Gladsky Marine Salvage crane*

**OCTOBER 24**

A trace amount of rain had fallen in the early morning hours before the sampling period with some light, intermittent rainfall during the sampling period. No rain had fallen during the preceding week. The tide was incoming (high tide about 10 AM), and so we were able to do a full survey of all stations—both upper and lower harbor. The wind was generally N-NE ranging from 3 to 10kts.



*Wm. Cullen Bryant estate house and boathouse in autumn colors*

### **Temperature and DO**

Air temperature ranged from about 17°C to 19°C during the sampling period. Water temperature throughout the harbor was just above 19°C at the surface as well as at the bottom. Bottom DO ranged from about 4.2 ppm to 4.9 ppm.

### **Color and Clarity**

There were small waves in the upper harbor, and water color was a normal green throughout the harbor. Secchi depth was at 2 m for most upper-harbor stations and ranged between 1 and 1.75 in the lower harbor. Floatable debris was noted in lower harbor, including paper pieces and one glove; in Glen Cove Creek tennis balls, plastic pieces, containers, and beverage bottles were noted.

### **Observations**

#### *Wildlife*

A few comb jellies were noted at CSHH #1, #4, and # 8. Large schools of bunker were noted in Glen Cove Creek—peanut size to 6 inches.

Birds were active throughout the harbor and included about nine dozen Canada geese, 16 cormorants, 4 egrets, 2 ospreys, 5 ducks, 32 swans, 2 blue heron, and 2 kingfishers.



#### *Human*

One tug pushed a fuel barge out of Hempstead Harbor and one tug headed for the lower harbor; one large barge with a crane was in the middle of the harbor; a small rusty barge and a duck blind were at the shoreline in Mott's Cove; 32 barges and a tug were tied off of the Port Washington gravel operation; 2 barges were at the bulkhead at Rayson Asphalt. A small boat with three men were going to the head of Glen Cove Creek, taking what seemed to be GPS points. Lots of work was going on at the Li Tungsten site—dirt was being moved around and dumped at the edge of the shoreline. Dirt was dumped at the edge of the shoreline at the Glen Cove Anglers Club.



## CSHH Water-Monitoring Program 2007

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH (ppm)		Air Temp (°C)	Depth (m) (bottom)	Time AM
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom			
<b>CSHH #1 - Beacon 11</b>											
10/31/2007	15.16	15.20	26.30	26.32	5.52	4.68	7.6	7.7	10.0	2.5	8:35
10/24/2007	19.36	19.30	26.93	27.47	4.87	4.62	7.7	7.6	18.2	5.1	8:30
10/17/07	18.09	18.34	25.95	26.54	5.43	5.36	7.5	7.5	15.5	2.7	8:35
10/10/07	22.36	21.92	26.85	27.52	4.53	4.22	7.4	7.4	18.9	3.2	8:15
9/5/07	21.76	21.75	27.10	27.10	4.45	4.39	7.4	7.4	20.6	3.2	8:58
9/27/07	22.56	21.97	26.56	27.06	6.37	6.51	7.5	7.4	22.8	3.4	8:35
9/19/07	19.78	20.51	25.18	26.08	6.27	5.44	7.6	7.6	15.7	4.0	8:53
9/13/07	22.09	22.20	25.51	25.69	4.70	4.57	7.5	7.5	17.7	2.8	8:30
9/5/07	23.19	22.66	25.73	26.2	7.56	3.55	7.9	7.4	20.5	4.6	8:28
8/29/07	22.78	22.55	25.57	25.82	5.3	3.91	7.6	7.5	22.0	2.2	8:15
8/22/07	20.93	21.59	25.62	26.6	2.99	1.40	7.4	7.3	18.3	4.8	8:35
8/15/07	24.85	23.86	24.85	25.35	7.99	5.53	8.0	7.7	24.8	2.6	8:30
8/8/07	No sampling--boat out of commission.										
8/1/07	No sampling--boat out of commission.										
7/25/07	21.54	20.37	25.01	25.84	7.75	3.86	7.9	7.5	23.1	3.5	8:45
7/20/07	21.49	20.83	24.78	25.24	4.35	4.04	7.5	7.5	24.6	2.8	8:50
7/11/07	20.38	17.18	24.46	25.22	4.46	2.83	7.5	7.4	25	4.4	8:17
7/5/07	17.97	17.93	23.98	24.08	5.1	4.92	7.6	7.6	22.9	2.2	8:50
6/27/07	19.53	16.05	24.58	25.12	8.40	3.74	7.9	7.4	30.5	4.2	9:05
6/21/07	19.89	19.74	23.47	23.64	8.11	8.53	8.2	8.2	21.5	3.4	9:00
6/13/07	18.3	16.57	23.47	24.2	6.89	6.25	8.1	8.0	18.0	4.8	8:35
6/6/07	15.53	15.47	23.37	23.46	8.60	9.29	8.3	8.3	15.3	2.6	9:01
5/30/07	18.26	14.18	23.22	24.13	10.49	7.23	8.3	8.0	18.8	4.6	10:10

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH (ppm)		Air Temp (°C)	Depth (m) (bottom)	Time AM
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom			
<b>CSHH #2 - Bell Marker 6</b>											
10/31/07	15.66	16.01	27.38	27.54	5.70	5.19	7.8	7.8	12.5	7.2	9:03
10/24/07	19.29	19.30	27.18	27.45	5.51	4.93	7.8	7.7	16.5	7.5	10:30
10/17/07	17.92	18.96	26.61	27.62	6.41	5.52	7.7	7.6	15.8	7.1	9:05
10/10/07	21.45	21.45	27.15	27.91	5.84	4.61	7.5	7.5	19.9	9.0	10:55
10/3/07	21.19	20.90	27.38	27.74	5.79	5.09	7.6	7.5	20.7	6.6	9:30
09/27/07	21.74	21.53	26.86	27.46	6.47	4.92	7.6	7.5	25.2	8.5	9:20
09/19/07	20.34	20.41	26.52	26.67	6.88	6.20	7.8	7.7	17.8	6.3	9:23
9/13/07	22.03	21.95	26.49	26.52	5.96	5.67	7.7	7.7	21.8	6.5	8:56
9/5/07	22.74	22.32	26.27	26.47	7.51	4.94	8.0	7.6	21.1	7.7	9:42
8/29/07	22.21	21.48	25.91	26.32	6.36	3.39	7.6	7.4	22.8	6.6	8:30
8/22/07	20.93	21.28	26.29	26.53	4.66	3.12	7.5	7.3	19.3	7.3	9:54
8/15/07	23.13	22.18	26.02	26.22	7.39	3.34	7.9	7.4	26.2	7.4	9:10
8/8/07	No sampling--boat out of commission.										
8/1/07	No sampling--boat out of commission.										
7/25/07	No water sampling at this site.										
7/20/07	21.11	19.38	25.37	26.07	7.58	2.54	7.9	7.4	25.7	8.0	9:40
7/11/07	20.19	17.10	25.62	25.94	8.67	5.95	8.0	7.6	25.0	8.8	9:55
7/5/07	17.39	16.38	25.42	25.64	7.02	4.99	7.8	7.6	23.3	6.8	9:18
6/27/07	19.84	15.09	24.71	25.47	12.01	5.81	8.4	7.7	31.5	8.9	9:30
6/21/07	18.81	17.21	24.14	24.40	9.77	4.86	8.4	7.8	22.0	7.2	10:00
6/13/07	18.42	16.51	24.23	24.5	NG	5.6	8.2	8.0	18.1	8.6	10:25
6/6/07	16.08	15.31	23.94	24.25	11.91	11.41	8.6	8.5	18.5	6.9	11:03
5/30/07	18.37	12.23	23.96	24.56	13.01	9.40	8.6	8.0	21.0	9.1	11:25



## CSHH Water-Monitoring Program 2007

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

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

**CSHH #3 - Glen Cove Creek, Red Marker**

10/31/07	15.81	15.93	26.99	27.40	5.12	4.71	7.8	7.8	13.7	3.3	9:25
10/24/07	19.25	19.33	25.75	27.44	5.31	4.85	7.7	7.7	16.8	5.4	10:55
10/17/07	18.41	18.70	26.59	27.50	6.11	5.23	7.7	7.6	16.9	3.5	9:25
10/10/07	21.77	21.54	27.37	27.80	5.39	4.02	7.5	7.4	19.9	5.7	11:12
10/3/2007	21.20	21.04	26.15	27.79	5.68	4.70	7.5	7.4	21.2	3.5	9:58
09/27/07	22.30	21.90	26.80	27.16	7.05	5.43	7.7	7.5	25.7	5.1	9:56
09/19/07	20.75	20.86	25.61	26.63	6.38	5.66	7.7	7.6	18.0	3.7	9:53
9/13/07	22.20	22.38	25.69	26.32	5.93	5.16	7.6	7.6	23.0	3.5	9:15
9/5/07	23.17	22.35	25.27	26.39	8.37	4.46	8.0	7.5	21.8	4.2	10:04
8/29/07	22.91	22.63	25.88	26.10	8.10	6.97	7.8	7.6	24.5	3.6	9:00
8/22/07	21.20	21.58	25.90	26.74	3.15	1.36	7.4	7.3	19.4	4.4	10:13
8/15/07	23.75	23.80	25.45	25.65	9.66	9.60	8.2	8.1	25.7	3.5	9:50
8/8/07	No sampling--boat out of commission.										
8/1/07	No sampling--boat out of commission.										
7/25/07	22.52	20.35	25.02	25.91	11.26	4.04	8.2	7.5	22.8	4.2	11:06
7/20/07	21.45	21.06	24.59	25.08	7.92	5.35	7.9	7.7	25.5	2.6	10:16
7/11/07	19.94	17.86	25.15	25.65	6.50	3.78	7.6	7.4	25.1	5.2	10:15
7/5/07	18.59	17.49	24.53	24.97	6.42	5.83	7.8	7.7	23.6	2.7	9:45
6/27/07	20.37	16.46	24.53	25.08	12.20	6.73	8.4	7.8	31.6	4.9	9:55
6/21/07	19.39	18.68	23.51	23.30	9.48	8.49	8.2	8.2	21.8	3.4	10:25
6/13/07	17.87	16.35	22.56	24.3	6.73	6.84	8.0	8.1	18.1	5.9	11:00
6/6/07	16.15	15.77	23.60	23.90	11.00	11.81	8.5	8.4	16.4	3.2	9:29
5/30/07	19.57	13.55	23.69	24.40	9.81	11.40	8.4	8.1	24.0	5.2	11:58

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

**CSHH #8 - Glen Cove Sewage Treatment Plant Outfall**

10/31/07	15.89	15.66	26.23	26.77	6.03	5.54	7.7	7.7	12.5	2.6	9:53
10/24/07	19.43	19.37	25.60	27.25	4.40	4.87	7.5	7.6	17.6	4.9	11:20
10/17/07	18.45	18.48	26.23	26.69	5.29	5.35	7.5	7.6	17.5	2.8	9:40
10/10/07	22.45	21.77	27.09	27.31	4.18	4.69	7.4	7.4	20.1	5.2	11:40
10/03/07	21.14	21.24	26.11	27.05	4.86	5.19	7.4	7.5	21.1	2.7	10:45
09/27/07	22.33	22.15	24.30	26.80	7.26	6.07	7.7	7.6	25.9	5.0	10:25
09/19/07	21.30	20.86	25.84	26.23	5.77	5.27	7.6	7.6	18.7	2.7	10:20
9/13/07	22.60	22.45	24.50	26.21	4.71	4.70	7.5	7.6	21.2	2.9	9:46
9/5/07	23.12	23.20	22.06	25.84	8.07	8.17	7.9	7.9	21.2	1.9	10:30
8/29/07	23.04	22.81	24.12	25.87	8.21	6.83	7.7	7.6	26.2	3.4	9:30
8/22/07	21.71	21.60	23.94	26.48	2.27	1.32	7.3	7.3	19.4	3.1	10:40
8/15/07	24.16	23.86	22.99	25.17	9.65	7.66	8.1	7.9	27.4	3.4	10:30
8/8/07	No sampling--boat out of commission.										
8/1/07	No sampling--boat out of commission.										
7/25/07	22.21	21.13	22.91	25.51	7.69	5.07	7.8	7.6	25.9	2.9	11:32
7/20/07	21.32	20.40	22.96	25.28	7.44	3.76	7.7	7.4	25.2	2.2	10:53
7/11/07	21.67	19.09	22.37	25.55	7.11	4.01	7.5	7.5	29.6	3.1	10:40
7/5/07	19.73	18.41	16.05	24.71	7.00	5.00	7.5	7.6	25.3	1.9	10:00
6/27/07	20.71	18.44	20.85	24.75	9.40	8.14	8.2	8.0	32.7	4.0	10:25
6/21/07	19.85	18.98	16.07	24.04	9.44	8.36	8.2	8.1	22.9	2.6	10:58
6/13/07	18.50	17.19	20.47	24.05	6.14	6.30	7.9	8.0	18.4	4.7	11:30
6/6/07	18.20	16.15	16.47	23.26	12.09	12.20	8.4	8.5	17.3	2.5	9:50



## CSHH Water-Monitoring Program 2007

Date	Water Temp (°C)		Salinity (ppt)		DO (ppm)		pH (ppm)		Air Temp (°C)	Depth (m) (bottom)	Time AM
	Surface	Bottom	Surface	Bottom	Surface	Bottom	Surface	Bottom			
<b>CSHH #4 - Bar Beach Spit</b>											
10/24/07	19.35	19.36	27.02	27.15	4.29	4.29	7.6	7.6	18.2	2.9	9:00
10/10/07	22.09	22.05	27.29	27.37	5.43	4.61	7.4	7.4	18.9	4.3	9:12
9/5/07	23.13	23.08	25.70	25.83	7.38	6.18	7.9	7.7	21.4	5.4	9:05
8/22/07	20.49	21.19	24.47	25.80	4.53	2.39	7.4	7.4	19.0	3.1	9:28
7/25/07	21.71	20.95	25.25	25.56	8.13	5.48	8.0	7.7	23.0	3.0	10:30
7/11/07	19.74	17.44	25.36	25.68	4.59	2.95	7.5	7.4	23.9	5.8	8:40
<b>CSHH #5 - Mott's Cove</b>											
10/24/07	19.33	19.36	26.67	26.99	4.22	4.29	7.6	7.6	17.8	2.0	9:15
10/10/07	22.47	22.44	26.93	27.19	4.28	4.19	7.3	7.3	19.7	1.9	9:35
9/5/07	22.39	23.05	25.02	25.54	6.25	5.80	7.6	7.6	21.5	1.3	8:55
8/22/07	20.78	21.19	24.57	25.35	3.32	1.96	7.3	7.3	18.9	1.3	9:10
7/25/07	22.08	20.86	24.22	25.17	10.56	5.68	8.0	7.6	23.6	1.3	10:15
7/11/07	19.14	18.70	24.95	25.39	5.36	2.99	7.4	7.3	24.9	1.7	9:00
<b>CSHH #6 - East of Former Incinerator Site</b>											
10/24/07	19.35	19.42	26.49	26.72	4.49	4.52	7.6	7.6	17.6	2.6	9:38
10/10/07	23.10	23.02	26.59	26.76	4.58	3.79	7.3	7.3	20.2	2.3	9:55
09/05/07	No sampling at this site because of outgoing tide.										
8/22/07	No sampling at this site because of outgoing tide.										
7/25/07	21.86	20.99	24.76	25.39	8.60	4.73	8.0	7.5	22.8	1.7	9:50
7/11/07	20.32	18.98	24.99	25.35	5.50	2.60	7.4	7.3	24.7	4.7	9:15
<b>CSHH #7 - West of Bryant Landing (formerly site of oil dock)</b>											
10/24/07	19.30	19.36	25.91	26.09	4.32	4.34	7.5	7.5	17.8	2.3	9:50
10/10/07	22.40	22.93	25.81	26.75	5.61	5.76	7.2	7.3	19.8	2.0	10:10
09/05/07	No sampling at this site because of outgoing tide.										
8/22/07	No sampling at this site because of outgoing tide.										
7/25/07	21.48	21.38	24.48	24.90	7.57	4.60	7.8	7.5	25.2	1.6	9:30
7/11/07	20.64	20.27	24.77	25.10	3.19	2.22	7.3	7.3	24.8	1.4	9:30