

Hempstead Harbor Water-Monitoring Report, September 29, 2010

Below is a copy of the water-monitoring report update for Hempstead Harbor covering the water-quality-sampling dates through August 22, 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

SEPTEMBER 2, 8, 15, 22, 29

September 2: Boat problems required postponement of monitoring from Wednesday to Thursday; high tide, 5:05 AM; outgoing tide during full survey at 5 stations; collected bacteria samples at 12 stations (CSHH #11-13 had high fecal coliform results but low enterococci results); wind was SW -6-19 kts.

September 8: High tide, 11:16 AM; incoming tide as we conducted a full survey at 10 stations (ran out of time for CSHH #13) and collected bacteria samples at 16 stations (ran out of time for CSHH #11-13) and results were low except for CSHH #14A, Powerhouse Drain, where the enterococci result was 240 CFUs; wind was SW and NW, 6-23 kts.

September 15: High tide, 5:37 AM; outgoing tide as we conducted a full survey at 5 stations and collected bacteria samples at 12 stations (results were generally low except for excessive levels of fecal coliform and enterococci at #14A, Powerhouse Drain (1,700 and 1,200 CFUs, respectively); generally windy with whitecaps, NW 8-23 kts.

September 22: High tide, 11:26 AM; incoming tide as we conducted a full survey at 11 stations and collected bacteria samples at 15 stations (results not yet available); wind generally W-SW at 8-21 kts.

September 29: Problems with YSI XLM meter--had to switch to XLM backup meter. High tide, 3:05 PM; outgoing tide until 9 AM; conducted full survey at 5 stations and collected bacteria samples at 11 stations—no access to #14A; mild breezes, NW 6-10 kts.

Rain, Temperature, and DO

From September 1- 22, we had only minimal amounts of rain—and only a trace amount from Hurricane Earl over Labor Day weekend. From September 1-8, we had only 0.5 mm of rain; September 9-22, 23.5 mm; September 23-28, 23 mm. **Air temperature** ranged at about 29-32°C, 24-29°C, 18-19°C, 21-24°C, and 20-22°C on September 2, 8, 15, 22, 29, respectively, during monitoring periods. **Water temperature** steadily decreased at surface and bottom: averaging 25°C at the surface and 24°C at the bottom on September 2 down to an average of 21°C at both surface and bottom on September 29. **Bottom DO** levels varied widely on September 2: 2.5 ppm at CSHH #2 to 9.0 ppm at CSHH #13; DO levels steadily increased with cooler temperatures and mixing by winds but fell again on September 29. On September 15 and 22, bottom DO was at about 7 ppm for most harbor stations; on September 29 bottom DO was at about 5 ppm at three upper-harbor stations and decreased to 3.45 ppm near the STP outfall and 2.49 ppm at # 13, at the head of Glen Cove Creek, where the water was very shallow.

Color and Clarity

On September 2, water color was judged to be an abnormal brown. This coincided with reports of red tide in parts of the sound and the ocean. On August 31, the water in Tappen Marina had also turned red in parts, and a water sample we collected at the marina (analyzed by NCDH) contained a mixed bag of dinoflagellates, some that could cause red coloration along with other types of algae, none of which were toxin producers. On the sampling dates in September, the water was judged to be a normal green. Secchi-depth ranges were 0.75-1.25m on September 2; 0.75-2.2m on September 8; 0.9-2m on September 15; 1.25-2m on September 22; and 1.2-1.7m on September 29.

Observations

Wildlife

September 2: Comb jellies (both sea walnuts and sea gooseberries) were noted only at CSHH #1. Baitfish and bunker were noted in Tappen Marina and in Glen Cove Creek. Large numbers of small shrimp were also noted in Tappen Marina around the gas dock and near bulkhead. One blue-claw crab was noted at Tappen Marina and 7 blue crabs were seen along the bulkhead near CSHH #8. The birds we noted while sampling included 3 cormorants; about 30 ducks at Tappen Marina and Glen Cove Creek; 2 dozen Canada geese by the bar at Bar Beach; 1 blue heron; 1 osprey at Beacon 11; 6 swans and 5 cygnets; and 4 terns.

September 8: The wind had pushed dozens of horseshoe crab shells (molts) into the lower harbor, all with the front edge of the shells pointed upward. Comb jellies (both types) were noted only at CSHH #1. Baitfish were seen at Tappen Marina and in Glen Cove Creek, and small shrimp, too numerous to count, were noted at Tappen Marina by the bulkhead and gas dock. Also noted were 12 cormorants, 6 ducks, 10 egrets, 2 dozen Canada geese, 6 ospreys, 21 swans and 8 cygnets, 2 terns, and 3 turkey vultures circling over Roslyn at the head of the harbor.



Seasonal scene of horseshoe-crab and mussel shells, Tappen Beach (photo by Carol DiPaolo, 9/11/10)

September 15: No comb jellies were noted. Fish (likely snappers) were breaking the surface in Glen Cove Creek. (A snapper derby was sponsored by the Hempstead Harbor Anglers at Tappen Beach on September 11 and dozens of snappers were caught. It was reported that a payloador was used to remove the horseshoe-crab shells from the boat ramp for the snapper derby; horseshoe crab shells (molts) and blue mussel shells could be seen all along the beach, as is typical during September. Also, one of the anglers reported that 86 blue-claw crabs were caught in Tappen Marina on September 10.) One blue-claw crab was seen by Steamboat Landing. Birds noted included 3 cormorants, 2 blue herons, 1 osprey, 4 swans and 5 cygnets, and 6 terns.



Snapper Derby at Tappen Beach



Prized catch at Snapper Derby (photos by Carol DiPaolo, 9/11/10)

Striped Bass Survey

NY DEC staff were seining in Hempstead Harbor on September 14 as part of the DEC's 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 all six stations that were sampled:

We had varying amounts of algae throughout the harbor. There was not much jelly and even less shrimp around. Here are our totals:

Striped Bass (older) = 12

Striped Bass (young of the year) = 6

Bluefish = 370

Winter Flounder = 2

Four spined stickleback = 1

Silversides = 4038
Killifish = 62
Northern pipefish = 1
Blue crab = 1 female
Green crab = 3
Mud crab = 1
Calico crab = 1
Seastars = 2

The winter flounder and bluefish were all young of the year.

September 22: No comb jellies were noted. Birds observed included 8 egrets, 20 Canada geese at Bar Beach, and 15 swans.

September 29: A few comb jellies (both sea walnuts and sea gooseberries) were noted at CSHH #1, Beacon 11. Baitfish were noted Tappen Marina, and small shrimp (too numerous to count) were at Tappen Marina and Glen Cove Creek (near CSHH #10) by the bulkheads. Bunker were breaking the water surface by CSHH #1, Beacon 11. Two blue-claw crabs were noted at Tappen Marina and 3 at Glen Cove Creek (clinging to the rope from the floating dock along the south bulkhead). Birds observed included 6 cormorants, 2 ducks, 38 Canada geese on the water south of CSHH #1, 2 blue herons, 1 belted kingfisher, and 2 swans and 3 cygnets.



Osprey over Hempstead Harbor (photo by Jim Moriarty, 9/8/10)

AUGUST 26

August 26: High tide, 12:46 PM; incoming tide during sampling; full survey at 5 stations and collected bacteria samples at 12 stations (results showed fecal coliform and enterococci levels exceeded standards at CSHH #11, 12, 13 (upper Glen Cove Creek) and #14A, 15A, and 15B (Powerhouse Drain and Scudder's Pond outfalls), following 4 consecutive days of rain (minimal amounts on 8/23-24 but 37 mm on 8/22).

Rain, Temperature, and DO

Total **rainfall** for the week preceding August 26 was 49.5 mm. **Air temperature** ranged at about 22-24°C during the monitoring period. **Water temperature** was 22°C at the surface and about 22-23°C at the bottom. **Bottom DO** was 2.6-4.6 ppm at the upper-harbor stations tested and 2.0 ppm and 0.5 ppm at CSHH #8 (STP) and #13 (head of Glen Cove Creek), respectively.

Color and Clarity

The water was very clear and judged to be a normal green. Secchi-depth range was 1.25-2m.

Observations

Wildlife

August 26: Comb jellies (both sea walnuts and sea gooseberries) were noted at CSHH #1, 2, and 3. Baitfish and small shrimp were noted in Tappen Marina near the gas dock and bulkhead. One blue-claw crab was seen at the bulkhead near CSHH #10. Birds observed include 3 cormorants, 13 ducks and 1 duckling, 2 great egrets, 1 blue heron, 2 night herons, 3 ospreys, 4 swans and 7 cygnets, and 3 terns.