

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE:

SUBJECT: New York Bight Monitoring Program Observations, 2004

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TO: Barbara A. Finazzo, Director
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THRU: Randy Braun, Chief
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Attached for your information is the seventh update of the 2004 NY Bight Monitoring Program. This update covers the period from July 19 - August 6, 2004.

Attachment

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Grebe Glogower Braun
UPDATE OF NY BIGHT MONITORING PROGRAM FROM July 19 - August 6, 2004

NY Bight Sampling has been as follows:

July 19	NY/NJ Harbor Complex Perpendiculars	Overflight Cancelled due to rain
July 20	NY/NJ Harbor Complex Long Island Beaches	Cancelled due to mechanical problems Cancelled due to mechanical problems
July 21	NY/NJ Harbor Complex New Jersey Beaches	Overflight Cancelled due to mechanical problems
July 22	NY/NJ Harbor Complex NJDEP nutrient network	Cancelled due to mechanical problems Cancelled due to mechanical problems
July 23	NY/NJ Harbor Complex	Cancelled due to rain
July 24	NY/NJ Harbor Complex	Cancelled due to rain
July 26	NY/NJ Harbor Complex NJDEP nutrient network	Overflight Cancelled due to rough seas
July 27	NY/NJ Harbor Complex Long Island Beaches	Overflight Rockaway to Shinnecock Inlet East
July 28	NY/NJ Harbor Complex New Jersey Beaches	Overflight Cancelled due to rain
July 29	NY/NJ Harbor Complex Perpendiculars	Overflight NYB20's, JC14, 27, 41, 53
July 30	NY/NJ Harbor Complex	Overflight
July 31	NY/NJ Harbor Complex	Cancelled due to rain
August 2	NY/NJ Harbor Complex Perpendiculars	Overflight JC61, 69, 75, 85, 90
August 3	NY/NJ Harbor Complex Long Island Beaches	Overflight Rockaway to Shinnecock Inlet East
August 4	NY/NJ Harbor Complex New Jersey Beaches	Overflight Sandy Hook to Cape May
August 5	NY/NJ Harbor Complex Perpendiculars	Overflight Cancelled due to small craft warnings
August 6	NY/NJ Harbor Complex Perpendiculars	Overflight NYB20, JC14

Projected Activities for Next Week:

August 7	NY/NJ Harbor Complex	Overflight
August 9	NY/NJ Harbor Complex Perpendiculars	Overflight JC27, 41, 53, 61, 69
August 10	NY/NJ Harbor Complex Long Island Beaches	Overflight Rockaway to Shinnecock Inlet East
August 11	NY/NJ Harbor Complex New Jersey Beaches	Overflight Sandy Hook to Cape May
August 12	NY/NJ Harbor Complex NJ Nutrients	Overflight Sandy Hook to Barnegat
August 13	NY/NJ Harbor Complex Perpendiculars	Overflight NYB20's, JC14, 27, 41, 53

Floatables

The New York/New Jersey Harbor Complex was monitored for floatables on July 19, 21, 26, 27, 29, 30, and August 2 - 6. The Harbor Complex was clear of significant debris on July 26, 27, and August 5 and 6.

On July 19, two slicks, each approximately ½ mile long by ten yards wide, were reported in the Arthur Kill and consisted of paper and plastic. A one mile long, light density slick was reported in the Kill Van Kull and consisted of wood and paper. A slick, approximately 1/4 mile long by 20 yards wide, was reported in the Kill Van Kull. In the Upper Harbor, a medium density slick, approximately ½ mile long by 10 to 20 yards wide, was reported and consisted of paper and plastic. Within the debris line a oily sheen was spotted and measured 20 yards long by 10 yards wide.

On July 21, two slicks were reported in Newark Bay. The first slick was ½ mile long by 5 to 10 yards wide and consisted of paper and plastic. The second slick was 1 ½ miles long by 10 yards wide. The medium density slick consisted of paper, plastic, and wood.

On July 29, a slick, approximately 3 to 4 miles long by ten yards wide, was reported in the Upper Harbor and consisted of wood pallets, plastic, and paper. A heavy density slick, approximately 30 yards long by 30 yards wide, was reported in the Hudson River. A medium density slick, approximately 100 yards long by 10 yards wide, was located on the north side of the East River and consisted of wood pallets and plastic. A large patch of debris was reported in Gravesend Bay. The debris consisted of paper and plastic and was sparse in density.

On July 30, three slicks were reported in the Arthur Kill. The first slick was 1/4 mile long by 5 yards wide. It was light density and contained wood, paper, and one tire. The second slick was 40 yards long by 10 yards wide. The debris was scattered and contained wood, paper, and plastic. The third slick was approximately 1 mile long by 5 yards wide. It was light density and contained a tire, large wood, paper, and plastic. Two slicks were reported in Newark Bay. The first slick was approximately 3/4 mile long by 15 yards wide and contained wood, paper, and a backseat to a car. The second slick was 1 acre in size, medium density, and contained wood pallets, paper, and plastic. In the Hudson River, a rainbow sheen, approximately 20 yards by 10 yards was reported. In the Upper Harbor there were two locations that contained debris. The first was 1 acre of heavy density debris containing wood, paper, and plastic. The second slick was approximately ½ mile long by 20 yards wide. It was medium density and contained wood, paper, and plastic.

On August 2, nine slicks were reported. In the Arthur Kill, a medium density slick, approximately ½ mile long by 10 yards was reported. The slick consisted of wood and paper. In Newark Bay, a medium density slick, approximately ½ mile long by 5 yards wide was reported.

Also, in Newark Bay, a heavy density slick, approximately 200 yards long by 20 yards wide was reported. An oily rainbow sheen, approximately 1/4 mile long by 5 yards wide was reported in Newark Bay. In the upper Harbor, a light density slick, approximately 1/4 mile long by 20 yards wide, was reported. The slick consisted of paper, plastic, and a chair. A medium density slick, approximately 1 ½ mile long by 10 to 5 yards, was reported in the upper Harbor. The slick consisted of a lot of wood, paper, buckets, wood pallets, and a DOT cone. Another

medium to light density slick was reported in the upper Harbor. The slick was 200 yards by 10 yards and consisted of wood, paper, and plastic. In Gravesend Bay, scattered debris was spotted along the seawall and consisted of wood and plastic. Off the west end of Coney Island, a 1/4 mile long by 5 yard wide slick was reported. This medium density slick consisted of wood, paper, and plastic.

All slicks were reported to the Army Corps of Engineers and clean-ups were conducted as necessary.

Bacteria

On July 27, bacteriological samples were taken along the Long Island coast from Rockaway Point (LIC01) to Shinnecock Inlet East (LIC28), due to a sampling error, these results will not be reported. On August 3, bacteriological samples were taken along the Long Island coast from Rockaway Point (LIC01) to Shinnecock Inlet East (LIC28). On August 4, samples were taken along the New Jersey coast from Sandy Hook (JC01A) to Cape May Point (JC99). The Long Island samples were tested for fecal coliform (FC) and enterococcus bacteria. New Jersey samples were analyzed for enterococcus bacteria.

On August 3, along the Long Island coast, the highest fecal coliform count, 3 FC/100ml, occurred at Long Beach (LIC09). The highest enterococcus count, 20 enterococci/100ml, occurred at Rockaway Beach (LIC03).

Along the New Jersey coast, the highest enterococcus count, 16 enterococci/100ml, occurred at Spring Lake (JC30) on August 4.

Phytoplankton

Phytoplankton samples were collected along the New Jersey coast, in Raritan Bay, Sandy Hook Bay, Barnegat Bay, and Great Bay on August 4. Samples were given to the New Jersey Department of Environmental Protection, Bureau of Marine Water Monitoring's Leeds Point Laboratory for analysis. The results reported by NJDEP are as follows:

Raritan/Sandy Hook Bay Area

A bloom of mixed diatoms was reported in the waters of both the Raritan Bay and Sandy Hook Bay. No toxic species were detected.

New Jersey Coastal Area

In the northern coastal waters from Sandy Hook to Manasquan, a mild bloom of mixed diatoms was reported. The composition was similar to the blooms in Raritan Bay and Sandy Hook Bay, so it is likely that this is an extension of these blooms. No toxic species were detected.

Low concentration of mixed diatoms were reported in the ocean waters off Ship Bottom. No

toxic species were detected.

A moderate diatom bloom was reported in the ocean waters off Cape May. No toxic species were detected.

Barnegat Bay Area

Algal concentrations north of Barnegat Inlet were dominated by *Nannochloris sp.* in mild bloom to bloom concentrations. No toxic species were detected.

Manahawkin Bay contained large amount of detritus. No toxic species were detected.

A bloom of mixed diatoms was reported in Little Egg Harbor. No toxic species were detected.

Great Bay

A bloom of mixed diatoms was reported in Great Bay. No toxic species were detected.

Great Egg Harbor

A diatom bloom was reported in Great Egg Harbor. No toxic species were detected.

Delaware Bay/Capeshore Area

A typical diverse assemblage of phytoplankton was present in the waters along the Cape Shore near Dias Creek. Sparse algal concentrations with a large amount of detritus were present in the waters at the mouth of the bay. No toxic species were detected.

Dissolved Oxygen

Bottom water samples were collected for dissolved oxygen (DO) analysis at the Sandy Hook (NYB20), Long Branch (JC14), Belmar (JC27), Bay Head (JC41) and Seaside Heights (JC53) perpendiculars on July 29, and at the Barnegat (JC61), Beach Haven (JC69), Atlantic City (JC75), Strathmere (JC85) and Hereford (JC90) perpendiculars on August 2. Bottom water samples were collected for dissolved oxygen (DO) analysis at the Sandy Hook (NYB20) and Long Branch (JC14) perpendiculars on August 6, these data are not available for this week's report and will be reported next week.

Tables 1 and 2 present the bottom dissolved oxygen (DO) results for the perpendiculars sampled on July 29. The lowest DO value, 3.4 mg/l, occurred three nautical miles off Bay Head, (JC41G).

Table 3 presents the bottom DO results for the perpendiculars sampled on August 2. The lowest DO concentration, 4.7 mg/l, occurred one nautical mile off Beach Haven (JC69E).

These values are typical for this time of year.

Table 1

Dissolved Oxygen Concentrations of Bottom Water Samples at the Sandy Hook Perpendiculars (mg/l)- July 29, 2004.

Location (Nautical Miles Offshore)	Station	DO (mg/l)
2	NYB20	6.4
4	NYB21	5.9
6	NYB22	7.2
7.4	NYB23	3.7
8.6	NYB24	6.3

Table 2

Dissolved Oxygen Concentrations of Bottom Water Samples at the Long Branch (JC14), Belmar (JC27), Bay Head (JC 41) and Seaside Heights (JC53) perpendiculars (mg/l) - July 29, 2004.

Location (Nautical Miles Offshore)	Long Branch JC 14	Belmar JC 27	Bay Head JC 41	Seaside Heights JC 53
1	5.3	4.9	4.9	4.9
3	3.5	5.6	3.4	6.1
5	5.7	4.5	4.9	7.9
7	4.7	5.8	5.6	7.2
9	6.1	6.2	6.3	5.9

Table 3

Dissolved Oxygen Concentrations of Bottom Water Samples at the Barnegat (JC61), Beach Haven (JC69), Atlantic City (JC75), Strathmere (JC85) and Hereford (JC90) perpendiculars - August 2, 2004.

Location (Nautical Mile Offshore)	Barnegat JC 61	Beach Haven JC 69	Atlantic City JC 75	Strathmer e JC 85	Hereford JC 90
1	5.4	4.7	5.8	5.7	6.7
3	6.6	6.4	6.1	5.9	7.5
5	6.5	6.5	6.0	5.6	6.5
7	6.4	6.2	6.9	6.1	6.8
9	7.1	5.4	6.8	6.2	7.1