

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE:

SUBJECT: New York Bight Monitoring Program Observations, 2005

FROM: Helen Grebe, Regional Coastal Monitoring Coordinator
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TO: Barbara A. Finazzo, Director
Division of Environmental Science and Assessment (DESA)

THRU: John Kushwara, Chief
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Attached for your information is the seventh update of the 2005 NY Bight Monitoring Program. This update covers the period from July 16 - July 28, 2005.

Attachment

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Grebe Braun Kushwara
UPDATE OF NY BIGHT MONITORING PROGRAM FROM July 16 - July 28, 2005

NY Bight Sampling has been as follows:

July 16	NY/NJ Harbor Complex	Overflight
July 18	NY/NJ Harbor Complex	Canceled due to fog
	NJ Nutrients	Canceled due to fog
July 19	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Canceled
	Perpendiculars	NYB20, JC14, JC27, JC41, JC53
July 20	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May Point
July 21	NY/NJ Harbor Complex	Overflight
	NJ Nutrients	Sandy Hook to Barnegat
July 22	NY/NJ Harbor Complex	Overflight
	Perpendiculars	JC61, JC69, JC75, JC85, JC90
July 23	NY/NJ Harbor Complex	Overflight
July 25	NY/NJ Harbor Complex	Overflight
July 26	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Canceled
	Perpendiculars	NYB20, JC14, JC27, JC41, JC53
July 27	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Mantoloking
July 28	NY/NJ Harbor Complex	Overflight
	NJ Nutrients	Barnegat to Delaware River

Projected Activities for Next Week:

July 29	NY/NJ Harbor Complex	Overflight
July 30	NY/NJ Harbor Complex	Overflight
August 1	NY/NJ Harbor Complex	Overflight
	Perpendiculars	JC61, JC69, JC75, JC85, JC90
August 2	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet
August 3	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May Point
August 4	NY/NJ Harbor Complex	Overflight
	Perpendiculars	NYB20, JC14, JC27, JC41, JC53
August 5	NY/NJ Harbor Complex	Overflight
	Perpendiculars	JC61, JC69, JC75, JC85, JC90
August 6	NY/NJ Harbor Complex	Overflight

Floatables

The New York/New Jersey Harbor Complex was monitored for floatables ten times from July 16 - July 28. The Harbor Complex was clear of significant floatable debris on July 16, 20, 23, 25, 27, and 28.

On July 19, a slick was observed in the Lower New York Harbor. The slick was approximately 2 miles long with varying widths consisting of wood, paper, plastic and reeds.

On July 21, a slick, approximately 1/4 mile long with varying widths, was reported in Newark Bay. A second slick, approximately 500 feet long consisting of a lot of large wood, was reported in the Hudson River. A third slick, approximately 3/4 miles long by 20 feet wide, was reported in the Lower Harbor.

On July 22, large slicks, approximately one mile long or longer were reported in the Arthur Kill, Newark Bay and off Coney Island. A smaller slick, approximately 500 yards, was reported in the Hudson River. All slicks consisted of wood, paper and plastic.

On July 26, a slick of heavy density approximately 300 yards long, was reported in the Lower Harbor.

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

Bacteria

The Long Island beach runs were canceled to inspect a possible low dissolved oxygen condition off the New Jersey coast. Bacteriological samples were taken along the New Jersey coast from Sandy Hook (JC01A) to Cape May Point (JC99) on July 20, and from Sandy Hook to Mantoloking (JC44), on July 27. New Jersey samples were analyzed for enterococcus bacteria. The remaining New Jersey beaches were not sampled due to heavy sea fog and poor visibility.

On July 20, along the New Jersey coast, two enterococci counts exceeded the 104 enterococci/100 ml State water quality standard. The elevated counts, 400 and 248 enterococci/100ml, occurred at Belmar (JC27) and Sandy Hook (JC05), respectively. Local and State authorities were immediately informed of the elevated counts.

Phytoplankton

Phytoplankton samples were collected at Long Branch, Spring Lake, Point Pleasant, and Cape May Point on July 20 and given to NJDEP for analysis. Results show that the bloom of *Olisthodiscus luteus* reported by Monmouth County Health Department on Monday was still present in moderate bloom levels ($\leq 5,000$ cells/mL). These counts were accompanied by exceptionally high chlorophyll a levels ranging from 34 - 151 ug/L. Most intense levels measured by NJDEP were in northern Monmouth County with lower levels in southern

Monmouth County. Monmouth County Health Department reported higher levels (21,282 cells/ml on 7/19/05), at the beachfront in Spring Lake.

The organism involved is not the toxic species responsible for the massive shellfish bed closures in New England last month.

Phytoplankton samples were collected along the New Jersey coast, in Raritan Bay, Sandy Hook Bay, and Barnegat Bay on July 27. Samples were given to the New Jersey Department of Environmental Protection, Bureau of Marine Water Monitoring's Leeds Point Laboratory for analysis. The results are available for this week's report and will be reported next week.

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 19 and 26; and at the Barnegat (JC61), Beach Haven (JC69), Atlantic City (JC75), Strathmere (JC85) and Hereford (JC90) perpendiculars on July 22.

Tables 1 and 2 present the bottom dissolved oxygen (DO) results for the perpendiculars sampled on July 19 and 26. The lowest DO value, 3.8 mg/l, occurred five nautical miles off Seaside Heights, (JC53I).

Table 3 presents the bottom DO results for the perpendiculars sampled on July 22. The lowest DO concentration, 5.4 mg/l, occurred one and seven nautical miles off Atlantic City (JC75E and JC75K).

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 19 and 26, 2005.

Location (Nautical Miles Offshore)	Station	DO (mg/l)	
		7/19	7/26
Date			
2	NYB20	6.2	6.3
4	NYB21	5.8	5.9
6	NYB22	6.7	7.8
7.4	NYB23	5.6	5.8
8.6	NYB24	6.0	6.9

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 19 and 26, 2005.

Location (Nautical Miles Offshore)	Long Branch JC 14		Belmar JC 27		Bay Head JC 41		Seaside Heights JC 53	
	7/19	7/26	7/19	7/26	7/19	7/26	7/19	7/26
1	4.8	5.2	5.3	4.9	4.6	4.1	5.4	4.9
3	6.2	6.1	5.9	6.6	4.4	6.4	5.0	4.9
5	7.3	5.3	5.2	7.3	7.1	7.3	3.8	5.8
7	6.6	5.9	6.0	7.4	6.7	7.4	4.3	5.6
9	6.6	7.0	6.1	6.8	6.1	7.1	6.8	6.4

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 - July 22, 2005.

Location (Nautical Mile Offshore)	Barnegat JC 61	Beach Haven JC 69	Atlantic City JC 75	Strathmer e JC 85	Hereford JC 90
1	7.7	8.0	5.4	6.6	6.8
3	9.8	8.0	7.4	7.5	7.2
5	8.7	7.9	7.7	7.1	6.9
7	7.8	7.9	5.4	7.1	7.8
9	7.2	8.1	8.2	8.2	7.5