UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE:

SUBJECT: New York Bight Monitoring Program Observations, 2004

FROM: Helen Grebe, Regional Coastal Monitoring Coordinator
Monitoring Operations Section (DESA-MOS)

TO: Barbara A. Finazzo, Director
Division of Environmental Science and Assessment (DESA)

THRU: Randy Braun, Chief
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Attached for your information is the fifth update of the 2004 NY Bight Monitoring Program. This update covers the period from July 3 - July 10, 2004.

Attachment

cc: Jane Kenny, 2RA, via LAN
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Dore LaPosta, 2DECA, via LAN
Walter Mugdan, 2DEPP, via LAN
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2MOS-MAB-DESA:HGrebe:hg:x6797:bldg209:finalized:7/12/04

2MOS-MAB 2MOS-MAB 2MAB-DESA

Grebe Glogower Braun

UPDATE OF NY BIGHT MONITORING PROGRAM FROM July 3 - July 10, 2004

NY Bight Sampling has been as follows:

July 3	NY/NJ Harbor Complex	Overflight
July 5	NY/NJ Harbor Complex	Canceled due to rain
July 6	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet East
July 7	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May Point
July 8	NY/NJ Harbor Complex	Overflight
July 9	NY/NJ Harbor Complex	Overflight
July 10	NY/NJ Harbor Complex	Overflight

Projected Activities for Next Week:

July 12	NY/NJ Harbor Complex	Overflight
	Perpendiculars	JC61, 69, 75, 85, 90
July 13	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet East
July 14	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May Point
July 15	NY/NJ Harbor Complex	Overflight
July 16	NY/NJ Harbor Complex	Overflight
July 17	NY/NJ Harbor Complex	Overflight

Floatables

The New York/New Jersey Harbor Complex was monitored for floatables a total of six times from July 3 to July 10. The Harbor Complex was clear of significant debris four of the six days.

On July 7, two slicks were reported in the Arthur Kill. Each slick was approximately ½ mile long by 5 yards wide and consisted of wood and plastic. A light density slick, approximately one mile long by 10 yards wide was reported in Gravesend Bay.

On July 8, a slick beginning approximately 1/2 mile off the southern end of Sandy Hook and extending 7 miles East to West was reported. The slick did not run along the beach but rather perpendicular to the coast and was approximately 5 to 20 yards in width. The slick was light density and consisted of wood, plastic, and general trash such as shopping bags and cups. Later in the afternoon, parts of this slick was reported washing up on Sandy Hook Beach.

A second slick was observed 2 miles southwest of Coney Island. The slick was heavy density approximately 1/2 mile long by 15 yards wide and consisted of wood, plastic and paper.

The slick probably originated in the harbor and was a consequence of the heavy thunderstorms occurring earlier in the week.

Additional flights were conducted on July 9 and 10 to include several Northern New Jersey beaches. No significant floatables were observed in the Harbor Complex on either day. No significant floatables were observed along northern New Jersey from Sandy Hook to Monmouth Beaches on July 9, or from Sandy Hook to Asbury, on July 10.

With the exception of the slicks observed on July 8, all slicks were reported to the Army Corps of Engineers and clean ups were conducted as necessary.

Bacteria

On July 1, bacteriological samples were collected at Sandy Hook (JC03), Ocean Grove (JC24), Spring Lake (JC30) and Sea Girt (JC33). On July 6, bacteriological samples were taken along the Long Island coast from Rockaway Point (LIC01) to Shinnecock Inlet East (LIC28). On July 7, 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 July 6, along the Long Island coast, the highest fecal coliform count, 29 FC/100ml, occurred at Rockaway Point (LIC01). The highest enterococcus count, 176 enterococci/100ml, occurred at Water Island (LIC20). All other enterococcus counts were below 28 enterococci/100ml.

Along the New Jersey coast, the highest enterococcus count, 175 enterococci/100ml, occurred at the south end of Island Beach State Park (JC59), on July 7. All other enterococcus counts were below 52 enterococci/100ml. All enterococcus counts for July 1 were zero.
Appropriate State authorities were notified of the enterococcus counts above the 104

enterococci/100ml standards. Bob Nuzzi of the Suffolk County Department of Health Services was notified of the high count in Long island, and Virginia Loftin of New Jersey Department of Environmental Protection was notified of the high count in New Jersey.

Phytoplankton

Phytoplankton samples were collected along the New Jersey coast, in Raritan Bay, Sandy Hook Bay, Barnegat Bay, and Great Bay on July 7. 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/New Jersey Coastal Area

The waters of Raritan Bay, Sandy Hook Bay and the New Jersey coastal area were generally clear with very sparse algal concentrations. No toxic species were detected.

Barnegat Bay Area

Algal concentrations north of Barnegat Inlet were dominated by *Nannochloris sp.* in mild bloom concentrations. Manahawkin Bay through Little Egg Harbor contained sparse algal concentrations throughout with minimal amounts of detritus. No toxic species were detected.

Great Bay/Great Egg Harbor

These waters were generally clear with very sparse algal concentrations. No toxic species were detected

Delaware Bay/Capeshore Area

A mild bloom of mixed diatoms is occurring along the Cape Shore near Dias Creek and at the mouth of the bay. Abundant species include; *Skeletonema costatum, Navicula sp., Nitzschia sp.,* and *Ceratulina pelagica*. No toxic species were detected in the sample near the Cape Shore. *Pseudonitzschia sp*. a potentially toxic species was detected below bloom or toxic concentrations in the waters at the mouth of the Bay. This is a common specie in New Jersey Waters.

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 2.

Tables 1 and 2 present the bottom dissolved oxygen (DO) results for the perpendiculars sampled on July 2. The lowest DO value 6.2 mg/l, occurred three nautical miles off Long Branch, (JC14G). 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 2, 2004.

Location (Nautical Miles Offshore)	Station	DO (mg/l)
2	NYB20	8.3
4	NYB21	7.6
6	NYB22	7.7
7.4	NYB23	7.9
8.6	NYB24	8.3

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 2, 2004.

Location (Nautical Miles Offshore)	Long Branch JC 14	Belmar JC 27	Bay Head JC 41	Seaside Heights JC 53
1	8.4	6.6	8.1	7.9
3	6.2	7.3	7.9	7.7
5	7.3	6.7	8.3	7.6
7	8.1	6.4	8.4	8.0
9	8.8	7.8	9.0	7.9