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 third update of the 2004 NY Bight Monitoring Program. This update covers the period from June 18 - June 25, 2004.

Attachment

cc: Jane Kenny, 2RA, via LAN
Kathleen Callahan, 2DRA, via LAN
Dore LaPosta, 2DECA, via LAN
Walter Mugdan, 2DEPP, via LAN
Bonnie Bellow, 2PAD, via LAN
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2MOS-MAB-DESA:HGrebe:hg:x6797:bldg209:finalized:6/25/04
2MOS-MAB 2MOS-MAB 2MAB-DESA

Grebe Glogower Braun
UPDATE OF NY BIGHT MONITORING PROGRAM FROM June 18 - June 25, 2004

NY Bight Sampling has been as follows:

June 18	Perpendiculars	NYB20's, JC 14, 27, 41, 53
June 19	NY/NJ Harbor Complex	Overflight
June 21	NY/NJ Harbor Complex	Overflight
	Perpendiculars	JC61, 65, 69, 75, 90
June 22	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet East
June 23	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May Point
June 24	NY/NJ Harbor Complex	Overflight
	NJDEP 200 station network	Sandy Hook to Barnegat
June 25	NY/NJ Harbor Complex	Overflight

Projected Activities for Next Week:

June 26	NY/NJ Harbor Complex	Overflight
June 28	NY/NJ Harbor Complex	Overflight
	NJDEP 200 station network	Barnegat to Delaware Bay
June 29	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet East
June 30	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May Point
July 1	NY/NJ Harbor Complex	Overflight
July 2	NY/NJ Harbor Complex	Overflight
	Perpendiculars	NYB20's, JC 14, 27, 41, 53
July 3	NY/NJ Harbor Complex	Overflight

Floatables

The New York/New Jersey Harbor Complex was monitored for floatables a total of six times from June 19 to June 25. The Harbor Complex was clear of significant debris four of the six days.

On June 24, a slick comprised of large wood and plastic, approximately 1 mile long by 10 feet wide was observed in Gravesend Bay, 1/4 mile south of the Verrazano Bridge.

On June 25, a rainbow oil sheen, approximately ½ mile long by 10 meters wide was observed located under the power lines in the Arthur Kill. Another slick, approximately 1 mile long by 5 yards wide, comprised of wood and plastic debris was observed in Gravesend Bay.

All slicks were reported to the Army Corps of Engineers and clean ups were conducted as necessary. Rainbow oil sheens are reported to the Coast Guard.

Bacteria

On June 22, bacteriological samples were taken along the Long Island coast from Rockaway Point (LIC01) to Shinnecock Inlet East (LIC28). On June 23, 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. Starting this year, New Jersey has adopted new water quality standards, and will base closings on enterococcus counts, therefore New Jersey samples will only be tested for enterococcus bacteria.

On June 22, along the Long Island coast, the highest fecal coliform count, 7 FC/100ml, occurred at Point Lookout (LIC10). The highest enterococcus count, 4 enterococci/100ml, occurred at Bellport Beach (LIC21).

Along the New Jersey coast, the highest enterococcus count, 4 enterococci/100ml, occurred at Ocean Grove (JC24) and Barnegat Light (JC61), on June 23.

NJDEP NEPPS

As part of our Performance Partnership Agreement with NJDEP, surface water samples were collected at 20 out of 41 stations from Sandy Hook to Barnegat on June 24. The remaining stations from Barnegat to Delaware Bay are scheduled to be sampled on June 28. The samples will be analyzed by NJDEP for chlorophyll, salinity, nitrate, nitrite, ortho-phosphate, ammonia, total nitrogen, and total suspended solids. Samples were also collected for temperature and dissolved oxygen analyses, which were completed in the field and by our Edison Laboratory respectively. These 41 stations are part of NJDEP's 200 Station Network.

Phytoplankton

Phytoplankton samples were collected along the New Jersey coast, in Raritan Bay, Sandy Hook Bay, Barnegat Bay, and Great Bay on June 23. 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

In Raritan Bay a moderate bloom of diatoms mixed with a significant amount of detritus was observed. The dominant species present was *Rhizosolenia sp.*. No toxic species were detected.

The waters of Sandy Hook Bay were generally clear with very sparse algal concentrations. No toxic species were detected.

New Jersey Coastal Area

The coastal waters from Sandy Hook to Cape May were generally clear with sparse algal concentrations. No toxic species were detected.

Barnegat Bay Area

Algal concentrations north of Barnegat Inlet were dominated by *nannochloris* 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 and 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. The sample near the mouth of the bay had sparse algal concentrations with a significant amount of detritus. 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 June 18.

The Barnegat (JC61), Beach Haven (JC69), Atlantic City (JC75), Strathmere (JC85) and Hereford (JC90) perpendiculars were sampled on June 21 .

Tables 1 and 2 present the bottom dissolved oxygen (DO) results for the perpendiculars sampled on June 18. The lowest DO value 5.8 mg/l, occurred one nautical mile off Belmar, (JC27).

Table 3 presents the bottom dissolved oxygen (DO) results for the perpendiculars sampled on June 21. The lowest DO value 6.3 mg/l, occurred three nautical miles off Strathmere, (JC 85).

Table 1

Dissolved Oxygen Concentrations of Bottom Water Samples at the Sandy Hook Perpendiculars (mg/l)- June 18, 2004.

Location (Nautical Miles Offshore)	Station	DO (mg/l)
2	NYB20	6.3
4	NYB21	7.6
6	NYB22	8.9
7.4	NYB23	8.1
8.6	NYB24	8.4

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) - June 18, 2004.

Location (Nautical Miles Offshore)	Long Branch JC 14	Belmar JC 27	Bay Head JC 41	Seaside Heights JC 53
1	6.1	5.8	6.7	7.9
3	6.9	7.0	6.9	8.0
5	7.6	8.0	7.6	8.0
7	8.5	8.3	8.0	8.8
9	8.7	8.6	7.9	8.6

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 - June 21, 2004.

Location (Nautical Mile Offshore)	Barnegeat JC 61	Beach Haven JC 69	Atlantic City JC 75	Strathmere JC 85	Hereford JC 90
1	8.1	8.3	7.9	6.5	6.5
3	7.6	7.4	7.3	6.3	7.6
5	**	7.6	7.3	7.1	7.8
7	7.8	8.2	7.7	7.0	7.8
9	8.3	8.1	8.0	7.7	9.4

** data was rejected