

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION II

**DATE:**

**SUBJECT:** New York Bight Monitoring Program Observations, 2002

**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  
Monitoring and Assessment Branch (DESA-MAB)

Attached for your information is the fourteenth and final update of the 2002 NY Bight Monitoring Program. This update covers the period from September 4 - 6, 2002.

Attachment

cc: Jane Kenny, 2RA, via LAN  
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2MOS-MAB-DESA:HGrebe:hg:x6797:bldg209:finalized:9/10/02

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

Grebe Glogower Braun  
UPDATE OF NY BIGHT MONITORING PROGRAM FROM Sept. 4 - 6, 2002

**NY Bight Sampling has been as follows:**

September 4	NY/NJ Harbor Complex	Canceled due to fog
	Phytoplankton	NJ Coast and Back Bays
September 5	Perpendiculars	JC61's, JC69, JC75, JC85, JC90
September 6	Perpendiculars	NYB20's, JC14, 27, 41, 53

This marks the end of the 2002 Helicopter Monitoring Season.

## **Floatables**

The New York/New Jersey Harbor Complex was not monitored for floatables on September 4 due to fog.

## **Phytoplankton**

Phytoplankton samples were collected along the New Jersey coast, in Raritan Bay, Sandy Hook Bay, Barnegat Bay, and Great Bay, on September 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**

Algal concentrations were sparse with a significant amount of detritus. *Prorocentrum sp.* was present in Sandy Hook Bay, but at levels so low it is not to be considered toxic. No toxic species were detected in the waters of Raritan Bay.

### **New Jersey Coastal Area**

Algal concentrations were sparse with a significant amount of detritus. *Prorocentrum sp.* was present at Long Branch, but at levels so low it is not to be considered toxic. *Pseudonitzschia* spp. was present at Manasquan, but at levels so low it is not to be considered toxic. No toxic species were detected in the two southernmost coastal stations.

### **Barnegat Bay Area**

The waters of Barnegat Bay, Great Bay and Great Egg Harbor contained sparse algal concentrations with significant amounts of detritus. No toxic species were detected.

### **Delaware Bay/Capeshore Area**

Algal concentrations were sparse near the mouth of the bay. Further up the bay, a mild bloom of mixed diatoms was occurring. Both stations contained a large amount of detritus. No toxic species were detected.

## **Dissolved Oxygen**

The Barnegat (JC61), Beach Haven (JC69), Atlantic City (JC75), Strathmere (JC85) and Hereford (JC90) perpendiculars were sampled on September 5. The Sandy Hook (NYB20), Long Branch (JC14), Belmar (JC27), Bay Head (JC41) and Seaside Heights (JC53) perpendiculars were sampled on September 6.

Table 1 presents the bottom dissolved oxygen (DO) results for the perpendiculars sampled on September 5. The lowest DO value, 5.4 mg/l, occurred three nautical miles

off Strathmere.

Tables 2 and 3 present the DO results for the perpendiculars sampled on September 6. The lowest DO value, 4.8 mg/l, occurred seven nautical miles off Long Branch.

These DO values are typical for this time of year and represent a strong recovery from the low DO results recorded in late August.

Table 1

Dissolved Oxygen Concentrations of Bottom Water Samples at the Barnegat (JC61), Beach Haven (JC69), Atlantic City (JC75), Strathmere (JC85) and Hereford (JC90) perpendiculars - September 5, 2002.

Location (Nautical Mile Offshore)	Barnegat JC 61	Beach Haven JC 69	Atlantic City JC 75	Strathmer e JC 85	Hereford JC 90
1	6.1	5.6	6.2	6.8	5.8
3	6.1	6.0	6.1	5.4	6.2
5	6.9	6.3	6.6	6.4	6.6
7	6.9	6.4	6.5	6.8	6.8
9	6.7	5.7	7.2	6.7	7.4

Table 2

Dissolved Oxygen Concentrations of Bottom Water Samples at the Sandy Hook perpendiculars (mg/l) - September 6, 2002.

Location (Nautical Miles Offshore)	Station	DO (mg/l)
2	NYB 20	6.1
4	NYB 21	6.4
6	NYB 22	6.7
7	NYB 23	5.1
8	NYB 24	5.4

Table 3

Dissolved Oxygen Concentrations of Bottom Water Samples at the Long Branch (JC14), Belmar (JC27), Bay Head (JC41) and Seaside Heights (JC53) perpendiculars (mg/l) - September 6, 2002.

Location (Nautical Miles Offshore)	Long Branch JC 14	Belmar JC 27	Bay Head JC 41	Seaside Heights JC 53
1	6.2	7.1	4.9	7.9
3	6.5	6.2	7.7	6.6
5	6.8	6.6	6.4	6.3
7	4.8	6.6	6.8	6.7
9	5.6	6.6	6.6	7.1