

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, Acting Chief  
Monitoring and Assessment Branch (DESA-MAB)

Attached for your information is the eighth update of the 2002 NY Bight Monitoring Program. This update covers the period from July 13 - July 19, 2002.

Attachment

cc: Jane Kenny, 2RA, via LAN  
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Bonnie Bellow, 2CD, via LAN  
Herbert Barrack, 2OPM, via LAN  
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Grebe Glogower Braun

UPDATE OF NY BIGHT MONITORING PROGRAM FROM July 13 - July 19, 2002

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

July 13	NY/NJ Harbor Complex	Overflight
July 15	NY/NJ Harbor Complex	Postponed
	Delaware River	Delaware River
	Basin Commission	
July 16	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet
July 17	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May
July 18	NY/NJ Harbor Complex	Overflight
	NJDEP 200 Station Network	Sandy Hook to Barnegat Bay
July 19	NY/NJ Harbor Complex	Overflight
	Perpendiculars	NYB20's, JC14, JC27, JC41, JC53

**Projected:**

July 20	NY/NJ Harbor Complex	Overflight
July 22	NY/NJ Harbor Complex	Overflight
	NJDEP 200 Station Network	Barnegat Bay to Cape May
July 23	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet
July 24	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May
July 25	NY/NJ Harbor Complex	Overflight
	Perpendiculars	JC61, JC69, JC75, JC85, JC90
July 26	NY/NJ Harbor Complex	Overflight
	Perpendiculars	NYB20's, JC14, JC27, JC41, JC53

## **Floatables**

The New York/New Jersey Harbor Complex was monitored for floatables a total of six times from July 13 to July 19, 2002. The Harbor Complex was clear of significant floatables on all days.

## **Bacteria**

Bacteriological samples were collected along the Long Island coast, from Rockaway (LIC01) to Shinnecock Inlet (LIC28), on July 16 and along the New Jersey coast from Sandy Hook (JC01) to Cape May (JC99) on July 17. The samples were tested for fecal coliform (FC) and enterococcus bacteria.

Along the Long Island coast, the highest FC count, 4 FC/100ml, occurred at Shinnecock Inlet (LIC28). The highest enterococcus count, 2 enterococci/100ml, occurred at Point Lookout (LIC10). The majority of the remaining results was zero.

Along the New Jersey coast, the highest FC count, 2 FC/100ml, occurred at Hereford Inlet (JC92). The highest enterococcus count, 24 enterococcus/100ml, occurred at Island Beach State park (JC55). The majority of the remaining results was zero.

## **Phytoplankton**

Phytoplankton samples were collected along the New Jersey coast, in Raritan Bay, Sandy Hook Bay, Barnegat Bay, Great Bay, and Delaware Bay, on July 17. 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 the Raritan/Sandy Hook Bay area. Species present include *Skeletonema costatum*, *cylindrotheca sp.*, *nitzschia sp.*, and *Thalassiosira sp.*. No toxic species were detected.

### **New Jersey Coastal Area**

Both the northern and southern coastal waters, were generally clear with algal concentrations sparse. No toxic species were detected.

### **Barnegat Bay Area**

In the northern portion of Barnegat Bay, a bloom of the small plankton species *Nannochloris* was reported with a significant amount of detritus. No toxic species were detected.

Manahawkin Bay contained a large amount of macroalgae detritus, with sparse phytoplankton concentrations. An unusually high chlorophyll a concentration was observed in this area (43.10ug/l), this was due to the detritus present. No toxic species were detected.

Algal concentrations were sparse from Tuckerton to Little Egg Inlet. No toxic species were detected.

### **Great Bay**

The waters of the Great Bay were generally clear with sparse algal concentrations. No toxic species were detected.

### **Great Egg Harbor**

A mild bloom of mixed diatoms was observed in the waters of the Great Egg Harbor, with *Thalassiosira sp.* dominant. No toxic species were detected.

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

A mild bloom of mixed diatoms (1000 to 2000 cells/ml) was observed in the waters of the Delaware Bay. *Thalassiosira sp.* was the dominant species just off Dias Creek, *Chaetoceros sp.* was the dominant species near the mouth of the bay. At the mouth of the bay, *Prorocentrum sp.* was present (30 cells/ml), at well below bloom or toxic concentrations. No toxic species were detected in the waters off Dias Creek.

### **Delaware River Basin Commission Sampling**

At the request of Ed Santoro, Monitoring Coordinator for the DRBC, surface water samples were collected at low slack tide at four sites along the Delaware River, on Monday. All samples were analyzed by a contract Laboratory for bacteria, algae, metals, dissolved oxygen and organic carbon. Additional sampling is scheduled for August 5 and September 3 and will augment DRBC's longstanding water quality sampling program in the Delaware Estuary.

### **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 July 18, 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 analysis, which was completed in the field and by our Edison Laboratory, respectively. The remaining stations from Barnegat to Delaware Bay will be sampled next week. These 41 stations are part of NJDEP's 200 Station Network.

### **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. The results are not available for this week's report and will be reported next week.