

## UPDATE OF NY BIGHT MONITORING PROGRAM

**August 18 - 24, 2001**

### NY Bight Sampling has been as follows:

August 18	NY/NJ Harbor Complex	Overflight
August 20	NY/NJ Harbor Complex	Overflight
August 21	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet
August 22	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Ocean City
August 23	NY/NJ Harbor Complex	Overflight
	NJDEP 200 Station Network	Barnegat to Delaware Bay
August 24	NY/NJ Harbor Complex	Overflight
	NJ Perpendiculars	NYB20's, JC14, JC27, JC41, JC53

### Projected Activities for Next Week:

August 25	NY/NJ Harbor Complex	Overflight
August 27	NY/NJ Harbor Complex	Overflight
	NJ Perpendiculars	JC61, JC69, JC75, JC85, JC90
August 28	NY/NJ Harbor Complex	Overflight
	Long Island Beaches	Rockaway to Shinnecock Inlet
August 29	NY/NJ Harbor Complex	Overflight
	New Jersey Beaches	Sandy Hook to Cape May
August 30	NY/NJ Harbor Complex	Overflight
	NJ Perpendiculars	NYB20's, JC14, JC27, JC41, JC53
August 31	NY/NJ Harbor Complex	Overflight
	NJ Perpendiculars	JC61, JC69, JC75, JC85, JC90

## **Floatables**

The New York/New Jersey Harbor Complex was monitored for floatables a total of six times from August 18 - 24, 2001. The Harbor Complex was clear of significant floatables on August 20, 23 and 24, 2001.

On August 18, a slick approximately one half mile by thirty feet, was reported in the Lower New York Harbor. On August 21, a significant amount of scattered debris was reported in Newark Bay. On August 22, a slick approximately 1000 ft long of varying width, was reported in Gravesend Bay. All slicks consisted of household trash, paper, plastic and wood.

All slicks were reported to the Army Corps of Engineers and cleanup was conducted as necessary.

## **Bacteria**

Bacteriological samples were collected along the Long Island coast, from Rockaway Point (LIC01) to Shinnecock Inlet East (LIC28), on August 21. Samples were collected along the New Jersey Coast, from Sandy Hook (JC01A) to Ocean City (JC81), on August 22. All samples were tested for fecal coliform (FC) and enterococcus bacteria.

Along the Long Island coast, the highest FC count, 84 FC/100ml, and the highest enterococcus count, 38 enterococci/100ml, occurred at Long Beach (LIC09).

The EPA criteria for enterococcus, 35 enterococci/100ml, is based on a geometric mean of five samples collected over a 30 day period. The EPA single sample maximum criteria is 104 enterococci/100ml. John Jacobs of the Nassau County Health Department was notified of the elevated bacteria count.

Along the New Jersey coast, the highest FC count, 8 FC/100ml, occurred at Sandy Hook (JC01A). The highest enterococcus count, 4 enterococci/100ml, occurred at Beach Haven Terrace (JC67).

## **Ocean Beach Closures**

Friday afternoon, the Atlantic City Health Department reported the closing of four ocean bathing beaches as a precaution due to a sewer line leak at the Central Pier. The pier has an amusement park, several general merchandise shops and a pizza shop. Water to the pier has been shut off and the pizza shop is closed. Work has begun to repair the leak. The line will be dye tested before the pizza shop is allowed to reopen. The closed Atlantic City beaches are: Mt. Vernon, New York, Kentucky and Tennessee Avenue beaches.

The health department has taken bacteria samples and results will be available Saturday.

## **NJDEP NEPPS**

As part of our Performance Partnership Agreement with NJDEP, surface water samples were collected at 20 out of 41 stations from Barnegat to Cape May, and in Delaware Bay on August 23. 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 samples from Sandy Hook to Barnegat were collected last week. The 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, Great Bay, Great Egg Harbor and Delaware Bay on August 22. 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 mild bloom of mixed diatoms was reported in Raritan Bay. Total diatom cell counts were 960 cells/ml. No toxic species were detected.

A mild bloom of mixed diatoms was reported in Sandy Hook Bay. Total diatom cell counts were 2190 cells/ml. The phytoplankton composition was similar to that of the Raritan Bay, but in higher concentrations. No toxic species were detected.

#### **New Jersey Coastal Area**

In the coastal waters north of Manasquan NJ, algal concentrations ranged from sparse to low concentration of mixed diatoms. No toxic species were detected.

Phytoplankton activity is increasing in the southern coastal waters, from Barnegat Light to Cape May. Remote sensing data obtained from NOAA, show elevated chlorophyll levels in this area, extending out to approximately 40 miles. Also, observations of "red water" were reported by citizens on 8/23/01. One report of "red water" was in Barnegat Light, the other was from Harvey Cedars. Samples collected on 8/22/01, showed the presence of *Prorocentrum spp.* in the ocean near Ship Bottom and Cape May. Additional samples collected on 8/23/01 from coastal waters off Ocean City and Sea Isle City, also contained *Prorocentrum spp.* This species does cause "red water". Although no large bloom is occurring at this time, monitoring of this area will be increased. *Prorocentrum spp.* cell counts ranged from 120-240 cells/ml in the southern coastal waters. Additional samples collected on Thursday, showed an increase amount of comb jellyfish in the area.

### **Barnegat Bay Area**

Northern Barnegat Bay was dominated by *Nannochloris sp.* and no toxic species were detected.

A mix of diatoms was dominant near Barnegat Inlet. *Prorocentrum spp.* was present in low levels.

Picoplankton was dominant in the sample collected at Manahawkin Bay. No toxic species were detected.

In the southern part of the Bay, mixed diatoms were dominant and *Prorocentrum spp.* was present (60 cells/ml).

### **Great Bay/Great Egg Harbor/Delaware Bay**

The waters of Great Bay, Great Egg harbor, and Delaware Bay contained a significant amount of detritus with algal concentrations sparse. No toxic species were detected.

## **Dissolved Oxygen**

Bottom water samples were collected at the Sandy Hook (NYB20), Long Branch (JC14), Belmar (JC27), Bay Head (JC41) and Seaside Heights (JC53) perpendiculars on August 24. The results are not available for this week's report and will be reported next week.