

This is the twelfth and final update of the 2006 NY Bight Monitoring Program.

UPDATE OF NY BIGHT MONITORING PROGRAM FROM August 25 – September 8, 2006

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

August 25	NY/NJ Harbor Complex Perpendiculars	Overflight JC61, JC69, JC75, JC85, JC90
August 26	NY/NJ Harbor Complex	Overflight
August 28	NY/NJ Harbor Complex	Canceled due to rain
August 29	NY/NJ Harbor Complex LI Beaches	Overflight Rockaway to Shinnecock Inlet
August 30	NY/NJ Harbor Complex New Jersey Beaches	Canceled due to rain Canceled due to rain
August 31	NY/NJ Harbor Complex	Overflight
September 1	NY/NJ Harbor Complex	Overflight
September 2	NY/NJ Harbor Complex	Canceled due to rain
September 4	NY/NJ Harbor Complex	Overflight
September 5	NJDEP Nutrients	Sandy Hook to Barnegat
September 6	Perpendiculars	NYB20's, JC14, JC27, JC41, JC53
September 7	NJDEP Nutrients	Barnegat to Delaware Bay
September 8	Perpendiculars	JC61, JC69, JC75, JC85, JC90

This marks the end of the 2006 Helicopter Monitoring Program.

**Floatables**

The New York/New Jersey Harbor Complex was monitored for floatables six times from August 25 – September 4, 2006. The Harbor Complex was clear of significant floatable debris on August 26, 29, 31 and September 1.

On August 25, two large slicks, each approximately 2 miles long by 50 feet wide, were reported in Newark Bay and the Upper NY Harbor.

On September 4, scattered debris and six large pieces of wood were reported in the Upper NY Harbor.

The Army Corps of Engineers conducted clean-up as necessary.

### **Bacteria**

On August 29, bacteriological samples were taken along the Long Island coast from Rockaway Point (LIC01) to Shinnecock Inlet East (LIC28), and tested for fecal coliform (FC) and enterococcus bacteria. The New Jersey beach run was canceled due to rain.

On August 29, along the Long Island coast, the highest fecal coliform count, 25 FC/100ml, occurred at Rockaway Beach (LIC03).

One of the stations sampled on August 29 was in exceedance of the enterococci criteria (104 enterococci/100ml). Station LIC 03, Rockaway Beach had a count of 141 enterococci/100ml. All other counts were below 21 enterococci/100ml. Local and state officials were immediately contacted. The New York City Health Department re-sampled this beach on August 30. Results reported on August 31 were below 4 enterococci/100ml.

### **NJDEP NEPPS**

As part of our Performance Partnership Agreement with NJDEP, surface water samples were collected at 41 stations from Sandy Hook to Delaware Bay on September 5 and 7. 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 Nutrient Station Network.

### **Dissolved Oxygen**

Bottom water samples were collected for dissolved oxygen (DO) analysis at the Barnegat (JC61), Beach Haven (JC69), Atlantic City (JC75), Strathmere (JC85) and Hereford (JC90) perpendiculars on August 25 and September 8, 2006, and at the Sandy Hook (NYB20), Long Branch (JC14), Belmar (JC27), Bay Head (JC41) and Seaside Heights (JC53) perpendiculars on September 6.

Table 1 presents the bottom DO results for the perpendiculars sampled on August 25 and September 8. The lowest DO concentration, 2.7 mg/l, occurred five nautical miles off Hereford Inlet (JC90I), on August 25. Values between 2 – 3 mg/l are considered lethal if prolonged. The majority of the DO values from August 25, showed an increase in concentration by September 8.

Tables 2 and 3 present the bottom dissolved oxygen (DO) results for the perpendiculars sampled on September 6. The lowest DO value 5.5 mg/l, occurred one nautical mile off Bay Head (JC41E). These values are excellent for this time of year.

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 – July 24 and 28, 2006.

Location (Nautical Miles Offshore)	Barnegat JC61		Beach Haven JC69		Atlantic City JC 75		Strathmere JC 85		Hereford JC 90	
	8/25	9/8	8/25	9/8	8/25	9/8	8/25	9/8	8/25	9/8
1	4.2	6.9	6.7	6.5	6.6	6.2	6.1	6.3	5.7	6.1
3	4.1	6.0	5.0	6.9	6.8	6.3	4.3	6.1	2.9	7.3
5	3.8	6.2	3.9	6.8	6.3	6.8	6.7	6.6	2.7	7.9
6	5.2	6.0	4.8	6.6	4.7	6.6	4.2	6.6	2.8	7.0
7	3.7	6.5	3.5	6.5	5.1	7.0	4.3	6.7	3.9	7.1

Table 2

Dissolved Oxygen Concentrations of Bottom Water Samples at the Sandy Hook Perpendicular (mg/l) – September 6, 2006.

Location (Nautical Miles Offshore)	Station	DO (mg/l)
2	NYB20	5.7
4	NYB21	6.2
6	NYB22	6.5
7.4	NYB23	7.2
8.6	NYB24	7.7

Table 3

Dissolved Oxygen Concentrations of Bottom Water Samples at the Long Branch (JC14), and Belmar (JC27), Bay Head (JC 41) and Seaside Heights ( JC53) Perpendiculars (mg/l) – September 6, 2006.

Location (Nautical Miles Offshore)	Long Branch JC 14	Belmar JC 27	Bay Head JC 41	Seaside Heights JC 53
1	6.5	6.3	5.5	7.6
3	7.3	6.3	7.6	6.1
5	7.7	6.6	7.5	6.8
7	6.8	7.3	7.1	7.1
9	7.1	7.0	7.1	7.1