

Sixth update of the 2012 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor complex was monitored for floatables six times from July 7 - 13. The harbor was clear of significant debris on July 9, 10, 11, and 12.

On July 7, a slick approximately ¼ mile long was reported in Gravesend Bay. On July 13, a slick approximately ¼ mile long and 5 - 20 feet wide was reported in Gravesend Bay. Another slick approximately 2 miles long and 10 to 50 feet wide was reported off Coney Island.

All floatable debris consisted of wood, paper, plastic, or rubber, were reported to the Army Corps of Engineers, and cleanup was conducted as necessary. The floatable debris slick off Coney Island was in shallow waters and close to the beach. This slick was reported to the New York City Department of Health.

Sampling:

Long Island:

Water quality samples were collected at 26 locations from Rockaway to Shinnecock Inlet, on July 11. Samples were given to the New York State Department of Environmental Conservation (NYSDEC) to conduct bacteriological analyses. These samples help fulfill NYSDEC's commitments to the National Shellfish Sanitation Program.

New Jersey:

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 July 12. Samples were given to the New Jersey Department of Environmental Protection (NJDEP), Bureau of Marine Water Monitoring Leeds Point Laboratory for analysis. These samples help fulfill NJDEP's commitments to the National Shellfish Sanitation Program. Results, as reported by NJDEP are as follows:

The waters of Raritan Bay are experiencing a mild bloom of *Skeletonema costatum*.

The potentially toxic species *Dinophysis accuminata* was detected in Sandy Hook Bay but it was below bloom or toxic levels.

No samples collected in the New Jersey Coastal Waters were found to contain the Paralytic Shellfish Poisoning species *Alexandrium spp.*

NJDEP has implemented an aircraft remote sensing program for estimating chlorophyll levels in NJ's coastal waters. This program provides a valuable perspective on algal conditions and trends. To view these maps please visit the website. <http://www.nj.gov/dep/bmw/remotesensing.htm>

See the complete report by NJDEP on next page.

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of July 9, 2012

TO: Distribution

FROM: Bill Heddendorf, Environmental Specialist 3
Bureau of Marine Water Monitoring

DATE: July 13, 2012

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of July 9, 2012

Samples were collected by the USEPA helicopter and analyzed at the NJDEP Bureau of Marine Water Monitoring's Leeds Point Laboratory.

Raritan/Sandy Hook Bay Area

The waters of Raritan Bay are experiencing a mild bloom of *Skeletonema costatum* (3000 cells/mL). The waters of Sandy Hook Bay are generally clear with sparse algal concentrations. The potentially toxic species *Dinophysis accuminata* was detected in Sandy Hook Bay but it was below bloom or toxic levels.

New Jersey Coastal Area

The ocean waters from Long Branch to Cape May are generally clear with sparse algal concentrations. No toxic species were detected in the ocean waters off the coast of New Jersey.

Barnegat Bay Area

The waters of Barnegat Bay near Toms River have elevated levels of *Dictyocha spp.* The waters near Island Beach State Park have elevated levels of *Nannochloris oculata*. The waters from Barnegat Inlet to Little Egg Harbor are generally clear with sparse algal concentrations. No toxic species were detected.

Great Bay

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

Great Egg Harbor

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

Delaware Bay/Capeshore Area

A normally diverse assemblage of phytoplankton with a large amount of detritus is present in the waters along the Cape Shore near Dias Creek. The waters at the mouth of the bay were generally clear with sparse algal conditions. No toxic species were detected.

No samples collected in the New Jersey Coastal Waters were found to contain the Paralytic Shellfish Poisoning species *Alexandrium spp.

**NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Phytoplankton Data Sheet**

Date: 07/12/12

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0750	24.9	6.31	<i>Skeletonema costatum</i> 3,000 cells/mL	None present
906A	0758	24.0	2.10	Sparse algal concentrations	<i>Dinophysis accuminata</i>
A11A	0805	23.2	< 0.42	Sparse algal concentrations	None present
A24A	0815	23.9	0.42	Sparse algal concentrations	None present
1605A	0828	25.7	4.63	<i>Dictyocha spp</i> 360 cells/mL	None present
1651D	0848	25.1	9.25	<i>Nannochloris oculata</i>	None present
1670D	0858	25.3	2.94	Sparse algal concentrations	None present
1703C	0906	25.4	2.52	Sparse algal concentrations	None present
A54B	0910	24.6	0.42	Sparse algal concentrations	None present
1800B	0914	25.4	< 0.42	Sparse algal concentrations	None present
1818D	0919	25.6	2.52	Sparse algal concentrations	None present
2100A	1027	25.2	4.63	Mixed diatoms 1,320 cells/mL	None present
2720B	1042	26.5	2.10	Sparse algal concentrations	None present
A85A2	1046	24.8	0.42	Sparse algal concentrations	None present
3826A	1108	24.4	1.68	Sparse algal concentrations	None present
3895E	1059	26.8	21.86	Diverse assemblage of phytoplankton Significant amount of detritus	None present

- **Toxic Species = toxic species associated with shellfish safety including; *Prorocentrum lima.*, *Alexandrium spp.*, *Dinophysis spp.*, and *Pseudonitzschia spp.***
- **This data can also be found online at <http://www.nj.gov/dep/bmw/phytoplankton.htm>**
- **The Bureau has implemented an aircraft remote sensing program for estimating chlorophyll levels in NJ's coastal waters. This program provides a valuable perspective on algal conditions and trends. To view these maps please visit the website. <http://www.nj.gov/dep/bmw/remotesensing.htm>**

