

Tenth update of the 2011 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables six times from July 30 - August 5. The Harbor was clear of significant floatables on July 30, August 2, 3, 4 and 5.

On August 1, a slick, approximately 300 yards long by 10 yards wide was reported in the Arthur Kill. A slick, approximately 400 yards long by 10 yards wide was reported in Newark Bay. A slick, approximately 200 yards long by 20 yards wide was reported in the Hudson River. A slick, approximately 1600 yards long by 5 yards wide was reported in Gravesend Bay. A slick, approximately 800 yards long by 5 yards wide was reported off Coney Island.

All floatable debris slick consisted of wood, plastic and paper, were reported to the Army Corps of Engineers, and cleanup was conducted as necessary.

Sampling:

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 August 2. 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:

Raritan and Sandy Hook Bay are experiencing a bloom of a mixed diatoms consisting of *Cylindrotheca closterium*, *Chaetoceros sp.* and *Skeletonema costatum* (17,600 to 4,760 cells/mL). No toxic species were detected.

Delaware Bay is experiencing a bloom of *Leptocylindrus minimus* (16,000 cells/mL). No toxic species were detected.

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>

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

See Pages 3-4 for the complete report by NJDEP.

Long Island:

Water quality samples were collected at 26 locations from Rockaway to Shinnecock Inlet, on August 3 . 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.

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of August 1, 2011

TO: Distribution

FROM: Bill Heddendorf, Environmental Specialist 2
Bureau of Marine Water Monitoring

DATE: August 3, 2011

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of August 1, 2011

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 and Sandy Hook Bay are experiencing a bloom of a mixed diatoms dominated by *Cylindrotheca closterium*, *Chaetoceros sp.* and *skeletonema costatum* (17,600 to 4,760 cells/mL). No toxic species were detected.

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 are experiencing elevated concentrations of *Leptocylindrus minimus* (4400 cells/mL). The waters of Barnegat Bay from Island Beach to Little Egg Harbor are experiencing sparse algal concentrations with a significant amount of detritus. No toxic species were detected in all of Barnegat Bay.

Great Bay

The waters of Great Bay are experiencing sparse algal concentrations with a significant amount of detritus. No toxic species were detected.

Great Egg Harbor

The waters of Great Egg are experiencing sparse algal concentrations with a significant amount of detritus. No toxic species were detected.

Delaware Bay/Capeshore Area

The waters of Delaware Bay near Dias Creek are experiencing a bloom of *Leptocylindrus minimus* (16,000 cells/mL). The waters of Delaware Bar near the mouth of the bay are generally clear with sparse algal concentrations. 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: 08/02/2011

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0843	24.5	26.07	<i>Cylindrotheca closterium</i> 8,800 cells/mL	None present
906A	0852	25.6	22.71	<i>Cylindrotheca closterium</i> 2400 cells/mL	None present
A11A	0856	22.7	3.78	Sparse algal concentrations	None present
A24A	0906	23.1	5.47	<i>Heterocapsa rotundata</i> 680 cells/mL	None present
1605A	0912	25.9	6.73	<i>Leptocylindrus minimus</i> 4,400 cells/mL	None present
1651D	0921	26.1	5.47	Sparse algal concentrations Significant amount of detritus	None present
1670D	0947	26.3	7.57	Sparse algal concentrations Significant amount of detritus	None present
1703C	0953	26.9	6.31	Sparse algal concentrations Significant amount of detritus	None present
A54B	0958	22.7	5.89	<i>Prorocentrum redfeldii</i> 280 cells/mL	None present
1800B	1003	25.6	3.78	Sparse algal concentrations Significant amount of detritus	None present
1818D	1007	26.3	5.89	Sparse algal concentrations Significant amount of detritus	None present
2100A	1013	26.5	8.83	Sparse algal concentrations Significant amount of detritus	None present
2720B	1026	25.7	4.63	Sparse algal concentrations Significant amount of detritus	None present
A85A2	1030	23.6	2.10	Sparse algal concentrations	None present
3826A	1051	21.5	3.36	Sparse algal concentrations	None present
3895E	1043	27.8	26.07	<i>Leptocylindrus minimus</i> 16,00 cells/mL	None present

- **Toxic Species = toxic species associated with shellfish safety including; *Prorocentrum lima.*, *Alexandrium* spp., *Dinophysis* spp., and *Pseudonitzschia* spp.**
- **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>**