

Fourteenth update of the 2012 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor complex was monitored for floatables six times from September 1 - 7. The harbor was clear of significant debris on September 1, 3, 6 and 7.

On September 4, a slick, approximately 1/8 mile long and 100 ft wide was reported on Newark Bay.

On September 5, a slick, approximately ¼ mile long with varying widths was reported in Gravesend Bay.

All floatable debris slicks 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 September 6. 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 and Sandy Hook Bay were experiencing a bloom of *Cylindrotheca closterium*. No toxic species were detected.

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>

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

See next page for the complete report

This data can also be found online at <http://www.nj.gov/dep/bmw/phytoplankton.htm>

This marks the end of the 2012 Helicopter Monitoring Season. Thanks for all the support.

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of September 3, 2010

TO: Distribution

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

DATE: September 7, 2012

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of September 3, 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 and Sandy Hook Bay were experiencing a bloom of *Cylindrotheca closterium* (64,000-400,000 cells/mL). No toxic species were detected.

New Jersey Coastal Area

The ocean waters from Long Branch to Cape May were 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 from Toms River to Island Beach were experiencing a mild bloom of *Nannochloris oculata* and *Synechocystis sp.* The waters from Barnegat Inlet to Little Egg Harbor were generally clear with sparse algal concentrations. No toxic species were detected.

Great Bay

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

Great Egg Harbor

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

Delaware Bay/Capesboro Area

A normally diverse assemblage of phytoplankton with a large amount of detritus was 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: 09/06/12

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0822	23.8	3.36	<i>Cylindrotheca closterium</i> 64,000 cells/mL	None present
906A	0831	23.9	5.89	<i>Cylindrotheca closterium</i> 400,000 cells/mL	None present
A11A	0836	23.6	1.26	Sparse algal concentrations	None present
A24A	0846	23.3	>0.42	Sparse algal concentrations	None present
1605A	0852	23.7	9.25	<i>Nannochloris oculata</i>	None present
1651D	0901	23.7	5.05	<i>Nannochloris oculata</i>	None present
1670D	0908	24.7	2.94	Sparse algal concentrations	None present
1703C	0913	24.4	1.26	Sparse algal concentrations	None present
A54B	0916	22.8	2.94	Sparse algal concentrations	None present
1800B	0921	24.5	2.10	Sparse algal concentrations	None present
1818D	0925	24.5	0.42	Sparse algal concentrations	None present
2100A	1010	24.8	2.10	Sparse algal concentrations	None present
2720B	1022	25.7	3.36	Sparse algal concentrations	None present
A85A2	1027	23.4	0.84	Sparse algal concentrations	None present
3826A	1051	24.5	>0.42	Sparse algal concentrations	None present
3895E	1042	26.5	6.73	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>

Chlorophyll (µg/L)

