

Seventh update of the 2010 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables six times from July 10 - 16, 2010. The Harbor was clear of significant floatables on July 10, 15 and 16. The floatable flight was cancelled on July 13 due to poor weather conditions.

On July 12, a floatable slick, approximately 300 yards long by 25 yards wide, was reported in Newark Bay. A slick, approximately 250 yards long by 15-20 yards wide was reported in the Upper NY Harbor.

On July 14, a floatable slick, approximately 200 yards long by 10 -15 yards wide, was reported in Newark Bay.

All floatable debris slicks were reported to the [Army Corps of Engineers](#), and cleanup was conducted as necessary.

Sampling:

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 15. 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 Sandy Hook Bay are experiencing a non-toxic mild bloom of mixed diatoms. Total diatom count was 2000 cells/ml.

The waters of Great Bay are experiencing a mild bloom of *Nitzschia sp* (1200 cells/ml).

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 pages 2-3 for a complete report.

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of July 12, 2010

TO: Distribution

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

DATE: July 16, 2010

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of July 12, 2010

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 generally clear with sparse algal concentrations. The waters of Sandy Hook Bay are experiencing a mild bloom of mixed diatoms. Total diatom cell count of 2,000 cells/mL. No toxic species were detected.

New Jersey Coastal Area

The ocean waters from Long Branch to Manasquan are experiencing a mild bloom of a *Skeletonema sp.* The ocean waters from Island Beach 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 from Toms River to Barnegat Inlet are experiencing low levels *Nannochloris oculata*. The waters by Manahawkin Bay have low levels of *Nitzschia sp.* All samples taken in Barnegat Bay had significant amounts of detritus. The no toxic species detected in any samples from 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 Harbor are experiencing sparse algal concentrations with a significant amount of detritus. 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 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: 07/15/2010

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0835	24.8	4.20	Sparse algal concentrations	None present
906A	0843	24.8	10.51	Mixed diatoms Total diatom count 2,000 cells/ml	<i>Dinophysis accuminata</i>
A11A	0847	22.2	7.57	<i>Skeletonema sp</i> 600 cells/mL	None present
A24A	0857	22.3	8.41	<i>Skeletonema sp</i> 840 cells/mL	None present
1605A	0901	25.5	18.08	<i>Nannochloris oculata</i> Significant amount of detritus	None present
1651D	0911	26.2	13.88	<i>Nannochloris oculata</i> Significant amount of detritus	None present
1670D	0916	26.1	16.40	<i>Nannochloris oculata</i> Significant amount of detritus	None present
1703C	0922	26.7	23.55	<i>Nitzchia sp</i> (600 cells/mL) Significant amount of detritus	None present
A54B	0925	22.2	7.15	<i>Prorocentrum redfeldii</i> 280 cells/mL	None present
1800B	0929	26.4	4.63	Sparse algal concentrations Significant amount of detritus	None present
1818D	0933	26.3	6.73	Sparse algal concentrations Significant amount of detritus	None present
2100A	0938	25.9	48.77	<i>Nitzchia sp</i> (1,200 cells/mL) Significant amount of detritus	None present
2720B	0950	25.4	1.68	Sparse algal concentrations	None present
A85A2	0954	23.5	5.05	Diverse assemblage of phytoplankton	None present
3826A	1015	22.8	4.63	Sparse algal concentrations	None present
3895E	1007	26.6	10.51	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.*
- 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>