

Fourteenth update of the 2011 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables four times from August 27 - September 2. Floatable flights were not conducted on August 27 or 29 due to hurricane Irene.

On August 30, approximately 20 large logs 20 to 30 feet in length and slicks totaling over 2 miles in length with varying thickness and widths were reported throughout the Arthur Kill. Large logs were reported in the southern end of Newark Bay and throughout the Kill Van Kull. Two slicks, each approximately one mile long consisting of many large logs and trees, were reported in the Lower Harbor and Gravesend Bay.

On August 31, a slick, approximately 1200 feet long was reported in Newark Bay. Large logs were reported in the Hudson River and Upper Harbor.

On September 1, two slicks, each approximately one to two miles long and 50 to 100 feet wide were reported in Newark Bay. Heavy scattered debris with large trees, branches and leaves was reported along two miles of the Hudson River. A slick, approximately one mile long by 50 feet wide was reported in the Upper Harbor. A patch consisting of large logs and plastic, approximately 250 feet by 250 feet was reported in Gravesend Bay.

On September 2, a slick, approximately a half mile long by 300 feet wide was reported in Newark Bay. A slick approximately 2000 feet long by 200 feet wide was reported in the Kill Van Kull. A slick 1500 feet long by 100 feet wide was reported in Gravesend Bay.

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 31. 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 mild bloom of *Eutreptiella* sp (640 cells/mL). The majority of samples showed sparse algal concentrations with a significant amount of detritus. 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 3-5 for the complete report by NJDEP.

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of August 29, 2011

TO: Distribution

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

DATE: September 1, 2011

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of August 29, 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 are generally clear with sparse algal concentrations. The waters of Sandy Hook Bay are experiencing a mild bloom of *Eutreptiella* sp (640 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 from Toms River 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

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 of Delaware Bay 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: 08/31/2011

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0851	20.6	2.52	Sparse algal concentrations	None present
906A	0858	21.1	15.98	<i>Eutreptiella sp</i> 640 cells/mL	None present
A11A	0903	20.5	5.05	Sparse algal concentrations	None present
A24A	0915	20.2	5.47	Sparse algal concentrations	None present
1605A	0921	20.8	7.15	Sparse algal concentrations Significant amount of detritus	None present
1651D	0930	20.8	9.25	Sparse algal concentrations Significant amount of detritus	None present
1670D	0955	21.8	6.73	Sparse algal concentrations Significant amount of detritus	None present
1703C	1003	20.9	11.77	Sparse algal concentrations Significant amount of detritus	None present
A54B	1006	20.9	5.89	Sparse algal concentrations	None present
1800B	1012	21.1	19.34	Sparse algal concentrations Significant amount of detritus	None present
1818D	1016	21.3	13.88	Sparse algal concentrations Significant amount of detritus	None present
2100A	1021	21.2	11.35	Sparse algal concentrations Significant amount of detritus	None present
2720B	1035	20.6	10.51	Sparse algal concentrations Significant amount of detritus	None present
A85A2	1039	20.8	7.15	Sparse algal concentrations	None present
3826A	1101	20.1	5.05	Sparse algal concentrations	None present
3895E	1053	21.6	15.14	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>**

