Third update of the 2011 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables four times from June 11 - 17. Floatable flights were not conducted on June 11 and 13 due to poor weather.

On June 14, a floatable slick, approximately 150 yards long was reported in Newark Bay.

On June 15, two floatable slicks, each approximately 400 to 800 yards long with varying widths, were reported in Newark Bay.

On June 16, two floatable slicks, each just over a mile long with varying widths, were reported in Newark Bay and Gravesend Bay.

On June 17, a floatable slick, approximately 800 yards long 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. The large slicks observed this week were likely due to the full moon causing high tides and re-suspending floatables into the water column.

Sampling:

Long Island:

Water quality samples were collected at 26 locations from Rockaway to Shinnecock Inlet, on June 14. 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 June 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 water samples from Barnegat Inlet and Little Egg Harbor are experiencing elevated concentrations of Nannochloris oculata. The brown tide organism Aureococcus anaphajefferens looks to be present but in low levels in Manahawkin Bay and Little Egg Harbor.

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 next page 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 June 13, 2011

TO: Distribution

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

DATE: June 16, 2011

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of June 13, 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 Bay are experiencing a low levels of *Gyrodinium spirale* (200 cells/mL).
The waters of Sandy Hook Bay are experiencing a mild bloom of a mixed dinoflagellates. 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 Barnegat Inlet are experiencing sparse algal concentrations.
The waters of Barnegat Bay from Barnegat Inlet to Little Egg Harbor are experiencing elevated concentrations of *Nannochloris oculata.* The brown tide organism *Aureococcus anaphajefferens* looks to be present but in low levels from Manahawkin Bay to Little Egg Harbor.

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 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 are experience elevated levels of mixed diatoms. Total diatom count of 840 cells/mL. 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.

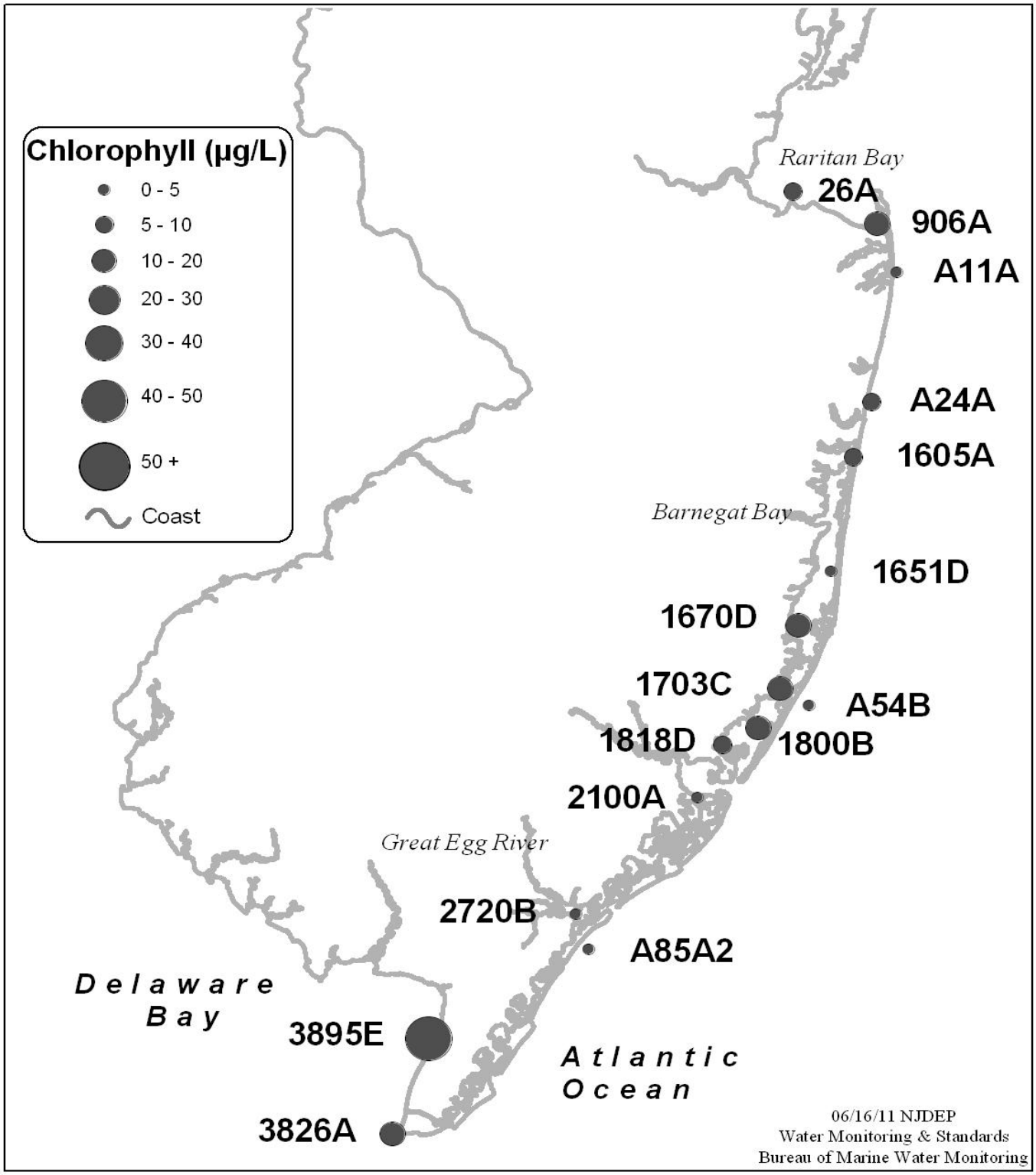
NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Phytoplankton Data Sheet

Date: 06/15/2011

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0907		6.31	*Gyrodinium spirale* 200 cells/mL	None present
906A	0914		10.51	Diverse assemblage of phytoplankton	None present
A11A	0919		2.52	Sparse algal concentrations	None present
A24A	0930		5.47	Sparse algal concentrations	None present
1605A	0935		8.83	Sparse algal concentrations Significant amount of detritus	None present
1651D	0945		2.10	Sparse algal concentrations	None present
1670D	1012		10.93	*Nannochloris oculata*	None present
1703C	1018		18.08	*Nannochloris oculata*	None present
A54B	1023		4.20	Sparse algal concentrations	None present
1800B	1028		10.93	*Nannochloris oculata*	None present
1818D	1032		9.25	*Nannochloris oculata*	None present
2100A	1038		4.20	Sparse algal concentrations Significant amount of detritus	None present
2720B	1050		2.10	Sparse algal concentrations	None present
A85A2	1055		4.63	Sparse algal concentrations	None present
3826A	1115		13.46	Mixed diatoms 840 cells/mL	None present
3895E	1124		49.62	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**


Chlorophyll (µg/L)
0 - 5
5 - 10
10 - 20
20 - 30
30 - 40
40 - 50
50 +
Coast
Raritan Bay
26A
906A
A11A
A24A
1605A
Barnegat Bay
1651D
1670D
1703C
A54B
1818D
1800B
2100A
Great Egg River
2720B
A85A2
Delaware Bay
3895E
Atlantic Ocean
3826A
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Water Monitoring & Standards
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