Seventh update of the 2011 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables six times from July 9 - 15. The Harbor was clear of significant floatables on July 9, 12, and 13.

On July 11, a floatable slick, approximately 400 yards long and 10 yards wide was reported in the Upper Harbor.

On July 14, a floatable slick, approximately 200 yards long and 1 -2 yards wide was reported in Newark Bay.

On July 15, a floating pier, 15 pieces of large wood and a patch of heavy debris 60 yards by 30 yards was reported in Newark Bay. A floatable slick, approximately 400 yards long and 2 yards wide was reported in the Kill Van Kull. A floatable slick, approximately 400 yards long and 15 yards wide was reported in the Upper Harbor.

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 July 13. 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 were experiencing a bloom of a diverse assemblage of phytoplankton dominated *by Prorocentrum redfeldii* (1200 to 1600 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 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 July 11, 2011

TO: Distribution

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

DATE: July 14, 2011

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of July 11, 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 diverse assemblage of phytoplankton dominated by *Prorocentrum redfeldii* (1200 to 1600 cells/mL). No toxic species were detected.

New Jersey Coastal Area

The ocean waters off the coast of Long Branch are experiencing a mild bloom of mixed diatoms (2960 cells/mL). The ocean waters from Manasquan 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 of mixed diatoms.
The waters of Barnegat Bay from Manahawkin Bay to Little Egg Harbor are experiencing elevated concentrations of Cylindrotheca closterium (280 to 1640 cells/mL). 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 and at the mouth of the bay. 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.

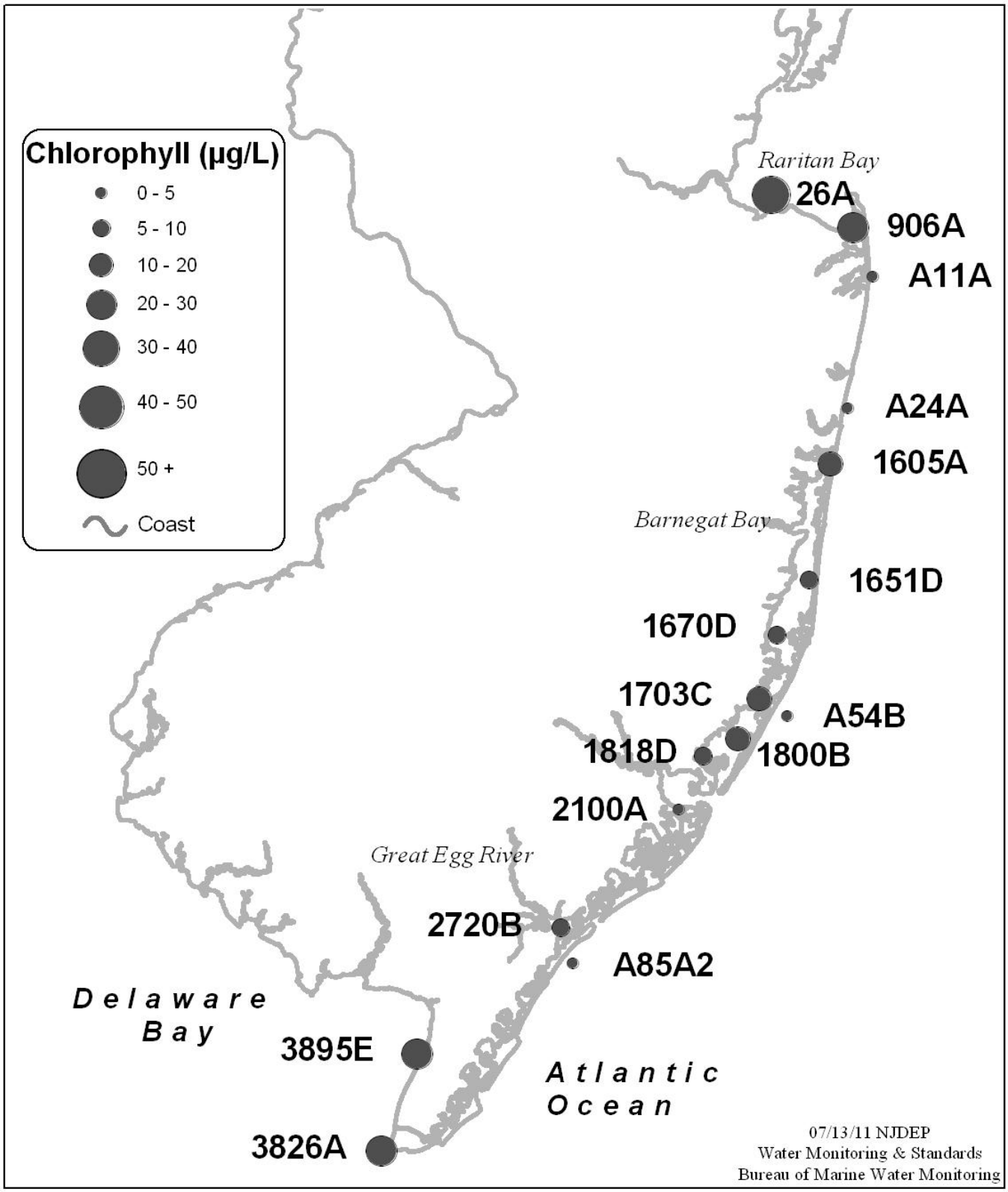
NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Phytoplankton Data Sheet

Date: 07/13/2011

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0912	25.1	37.42	*Prorocentrum redfeldii* 1600 cells/mL	None present
906A	0919	25.9	29.85	*Prorocentrum redfeldii* 1200 cells/mL	None present
A11A	0931	23.9	3.78	Mixed diatoms 2960 cells/mL	None present
A24A	0953	22.4	0.84	Sparse algal concentrations	None present
1605A	0958	26.1	12.61	Mixed diatoms	None present
1651D	1009	27.1	5.05	*Leptocylindrus danicus* 320 cells/mL	None present
1670D	1041	26.8	7.15	*Leptocylindrus danicus* 160 cells/mL	None present
1703C	1048	27.3	17.24	*Cylindrotheca closterium* 1640 cells/mL	None present
A54B	1053	21.1	3.78	Sparse algal concentrations	None present
1800B	1058	27.1	10.93	*Cylindrotheca closterium* 280 cells/mL	None present
1818D	1103	26.3	7.57	Sparse algal concentrations Significant amount of detritus	None present
2100A	1110	26.9	4.63	Sparse algal concentrations Significant amount of detritus	None present
2720B	1123	26.3	5.47	Sparse algal concentrations Significant amount of detritus	None present
A85A2	1128	26.7	1.68	Sparse algal concentrations	None present
3826A	1157	25.9	20.60	Mixed diatoms	None present
3895E	1148	28.7	26.91	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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