Eighth update of the 2013 Helicopter Monitoring Program

Floatables:

The New York/New Jersey Harbor Complex was monitored for floatables six times from July 20 - 26. The Harbor was clear of significant floatables on July 25 and 26.

On July 20, a floatable debris slick, approximately ½ miles long with varying widths was reported in the Upper Harbor.

On July 22, two floatable slicks, one approximately 900 yards long by 4 yards wide, and the other approximately 600 yards long by 2 yards wide were reported in Newark Bay. Floatable slicks, each approximately 400 yards long by 4 – 50 yards wide, were reported in the Kill Van Kull, the Hudson River and Gravesend Bay.

On July 23, three floatable slicks, two approximately 400 yards long, and one approximately 1400 yards long by 2 yards wide were reported in the Arthur Kill. Two floatable slicks, one approximately 800 yards long by one yard wide, and the other approximately 400 yards long by one yard wide were reported off Coney Island.

On July 24, a floatable slick, approximately 600 yards long by one yard wide was reported in Newark 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.

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:

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 24. 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 Bay are experiencing a bloom of *Eutreptia lanowii* (3160 cells/mL). No toxic species were detected.

No toxic species were detected in any of the samples collected in the New Jersey estuarine and coastal waters.

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

See next page for the complete report

NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Algal Conditions in New Jersey Estuarine and Coastal Waters
Week of July 22, 2013

TO: Distribution

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

DATE: July 25, 2013

SUBJECT: Report of Algal Conditions in New Jersey Coastal Waters
Week of July 22, 2013

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 bloom of *Eutreptia lanowii* (3160 cells/mL). The waters of Sandy Hook Bay are experiencing low levels of mixed diatoms. 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.

Barnegat Bay Area

The waters of Barnegat Bay from Toms River to Barnegat Inlet are generally clear with sparse algal concentrations**.** The waters of Manahawkin Bay are experiencing low levels of *Amphiprora sp* (520 cells/mL). The lower portion of the bay is experiencing low levels of mixed diatoms dominated by a tiny *Nitzschia sp.* No toxic species were detected.

Great Bay

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

Great Egg Harbor

The waters of Great Egg Harbor are experiencing low levels of *Leptocylindrus minimum* (880 cells/mL). 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 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.

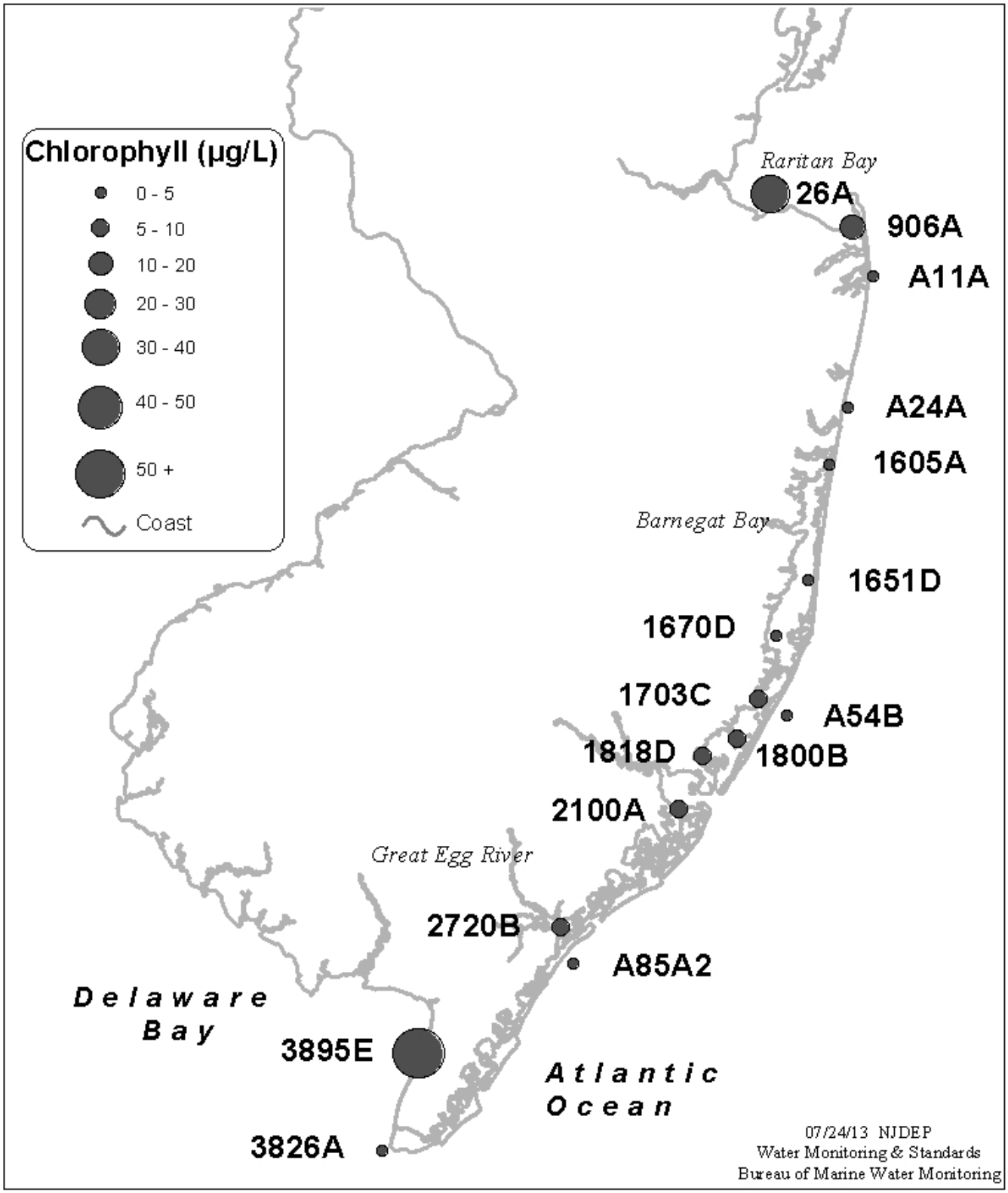
NJDEP Water Monitoring and Standards
Bureau of Marine Water Monitoring
Phytoplankton Data Sheet

Date: 07/24/13

Collector: EPA

Station #	Time	Water Temp.	Chlorophyll (ug/l)	Dominant Species	Toxic Species*
26A	0909	22.7	37.00	*Eutreptia Ianowii* 3160 cells/mL	None present
906A	0913	23.1	17.66	Mixed diatoms Significant amount of detritus	None present
A11A	0918	21.7	1.68	Sparse algal concentrations	None present
A24A	0931	21.1	1.68	Sparse algal concentrations	None present
1605A	0935	21.1	1.26	Sparse algal concentrations	None present
1651D	0943	20.3	1.68	Sparse algal concentrations	None present
1670D	1014	20.4	1.68	Sparse algal concentrations	None present
1703C	1025	24.7	7.15	*Amphiprora sp* 520 cells/mL	None present
A54B	1031	19.1	2.52	Sparse algal concentrations	None present
1800B	1039	24.1	9.25	Mixed diatoms 1520 cells/mL Significant amount of detritus	None present
1818D	1044	23.5	7.15	*Nitzschia sp* 124,000 cells/mL	None present
2100A	1052	21.5	6.31	Sparse algal concentrations Significant amount of detritus	None present
2720B	1104	19.5	5.05	*Leptocylindrus minimum* 880 cells/mL	None present
A85A2	1108	19.2	2.10	Sparse algal concentrations	None present
3826A	1131	17.7	2.94	Sparse algal concentrations	None present
3895E	1140	25.7	62.23	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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