

May 22, 2012

Mr. Stephen Perkins
U.S. Environmental Protection Agency
Water Enforcement
OES4-SMR
5 Post Office Square, Suite 100
Boston, MA 02109-3912

Mr. David Ferris
Division of Wastewater Management
Department of Environmental Protection
1 Winter Street
Boston, MA 02108

RE: Massachusetts Water Resources Authority
Permit Number MA 0103284
MWRA Contingency Plan Threshold Exceedance: Red Tide 2012

Dear Mr. Perkins and Mr. Ferris:

In its outfall ambient monitoring program, MWRA monitors levels of the red-tide alga *Alexandrium*, the cause of paralytic shellfish poisoning (“PSP”). Reporting on per-sample abundances of *Alexandrium* in the outfall nearfield is part of MWRA’s Ambient Monitoring Plan¹ and Contingency Plan.² The Contingency Plan also specifies that MWRA conduct additional targeted monitoring for *Alexandrium* if any nearfield sample exceeds 100 cells/liter.

On May 15, 2012, MWRA carried out a planned water column survey which included measurements of *Alexandrium*. On May 18, MWRA was notified that results from that survey from three nearfield stations had *Alexandrium* counts exceeding the Contingency Plan threshold of 100 cells/liter. (Five farfield stations also had counts greater than 100 cells/liter.) This exceedance for *Alexandrium* requires regulatory and public notification. This letter constitutes that notification.

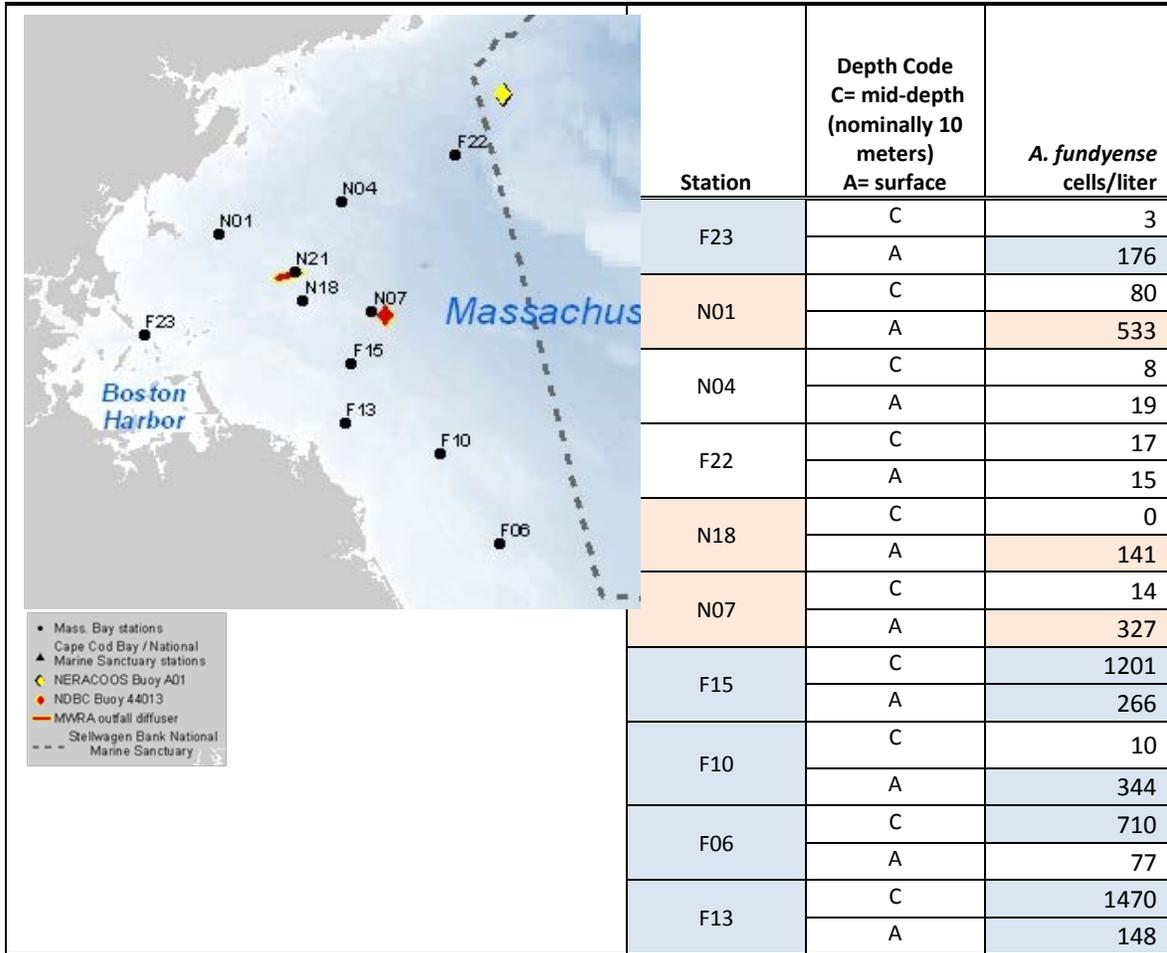
The following table shows the results of the May 15 survey; sampling sites are shown on the map.

¹ *Ambient Monitoring Plan for the Massachusetts Water Resources Authority Effluent Outfall Revision 2*. July 2010. Boston: Massachusetts Water Resources Authority. Report 2010-04. <http://www.mwra.state.ma.us/harbor/enquad/trlist.html>

² *Massachusetts Water Resources Authority Contingency Plan Revision 1*. 2001. Report ENQUAD 2001-ms-071. <http://www.mwra.state.ma.us/harbor/enquad/trlist.html>

Results of MWRA May 15, 2012 *Alexandrium* testing.

Orange shading indicates those nearfield stations where *Alexandrium* exceeded the Contingency Plan threshold >100 cells/liter. Blue shading indicates farfield stations where counts >100 cells/liter. (Station N21 is sampled for nutrients only.)



MWRA staff have been tracking the progress of this year’s *Alexandrium* bloom since March 2012. We have been receiving frequent updates from both Maine and Massachusetts shellfish monitoring staff, Woods Hole Oceanographic Institution scientists and New Hampshire shellfisheries regulators. So far, this year’s pattern of red tide has been moderate and typical, beginning in coastal Maine and then advecting southward. Experimental computer modeling³ done by the Woods Hole Oceanographic Institution and North Carolina State University predicted the presence of *Alexandrium* in Massachusetts Bay. Therefore, the finding of *Alexandrium* in Massachusetts Bay is as expected. As described in its rapid response plan,⁴ MWRA will carry out

³ Ruoying He, Yizhen Li, Dennis McGillicuddy, Don Anderson, Bruce Keafer: Gulf of Maine *Alexandrium fundyense* Model Results – 2012. <http://omglnx3.meas.ncsu.edu/GOMTOX/2012forecast/>

⁴ Libby S. 2006. Standing survey plan: rapid response *Alexandrium* survey. Boston: Massachusetts Water Resources Authority. Report 2006-05. <http://www.mwra.state.ma.us/harbor/enquad/trlist.html>

weekly *Alexandrium* surveys until the nearfield cell counts drop below the 100 cells/liter threshold. MWRA will report data from future surveys when they become available.

If you have questions or need additional information, please feel free to call me, at (617) 788-4359.

Sincerely,

Michael J. Hornbrook
Chief Operating Officer

Cc:

Environmental Protection Agency, Region I

Matthew Liebman
Todd Borci

National Marine Fisheries Service

Daniel Morris

Stellwagen Bank National Marine Sanctuary

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