



MASSACHUSETTS WATER RESOURCES AUTHORITY

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November 13th, 2017

Ms. Susan Studlien
Office of Environmental Stewardship
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OES04-5
Boston, MA 02109-3912

Ms. Susannah King
Acting Director, Watershed Permitting
Division of Watershed Management
Department of Environmental Protection
1 Winter Street
Boston, MA 02108

RE: Massachusetts Water Resources Authority
Permit Number MA 0103284
Submission Pursuant to Part I.8.c. – Contingency Plan Modifications

Dear Ms. Studlien and Ms. King:

Pursuant to Part I.8.c of the Massachusetts Water Resources Authority's ("MWRA") National Pollutant Discharge Elimination Program ("NPDES") Permit (Permit Number MA0103284) ("the permit"), MWRA is proposing final modifications for 2017 to the *Massachusetts Water Resources Authority Contingency Plan Revision 1, May 2001* (Original attached to the permit as Attachment O). Under Part I.8.c of the permit, a list of all proposed modifications to the Permit for the year, including any interim modifications that have taken effect under Part I.8.d, must be submitted to EPA, MADEP, NMFS NOS, OMSAP and the public, and published in the Environmental Monitor for the purpose of receiving public comment.

On January 3, 2017, MWRA proposed¹ the modifications described below as interim modifications to the Contingency Plan under Part I.8.d of the permit. On February 3, 2017, EPA sent a letter² documenting that the agency did not object to the proposed interim changes, allowing them to take effect on an interim basis.

The Contingency Plan ("CP") was developed and attached to the permit with the clear intention that it was to be a "living document." Changes to the Contingency Plan can be made without requiring a modification to the NPDES permit because EPA included in the permit a separate process for modifying the CP³ outside the permit modification process.

¹ http://www.mwra.com/harbor/pdf/20170103_cpmod.pdf. Includes a September 5, 2002 memorandum by Jeffrey Fowley of the Environmental Protection Agency's (EPA) Office of Regional Counsel, explaining the similar permit mechanism authorizing changes to MWRA's permit-attached Ambient Monitoring Plan.

² http://www.mwra.com/harbor/pdf/20170203_contplan.pdf.

³ The Contingency Plan can be retrieved from MWRA's website at: <http://www.mwra.state.ma.us/harbor/enquad/pdf/2001-ms-71.pdf>.

MWRA is proposing changes to Caution Level thresholds for two parameters that have been studied extensively in response to multiple exceedances since outfall startup in September 2000. The two parameters are the seasonal abundance of *Phaeocystis pouchetii* (“*Phaeocystis*”) in the nearfield water column, and diversity of the benthic community in nearfield sediments. Evaluations of the threshold exceedances, with which EPA and MADEP’s Outfall Monitoring Science Advisory Panel (“OMSAP”) has concurred, have indicated the exceedances resulted from natural fluctuations in Massachusetts Bay, do not represent degradation, and did not result from MWRA’s discharge.

MWRA prepared a briefing detailing the rationale for these proposed changes for the October 27, 2016 OMSAP meeting⁴. At that meeting, OMSAP members voted unanimously to endorse these recommended changes, which also received unanimous support at the meeting of OMSAP’s Public Interest Advisory Committee, which convened immediately following the OMSAP meeting.

The proposed changes are:

- Delete the Contingency Plan Caution Level threshold for *Phaeocystis*; and
- Delete the upper range thresholds for infaunal diversity, as shown in Table 1 below.

Table 1. Historical results of infaunal benthic community monitoring compared with Contingency Plan thresholds (measured once a year since September 2000).

Parameter	Threshold range		Exceedances since September 2000
	Low	High*	
Total species	43.0	81.9	None
Log-series Alpha	9.42	15.8	None
Shannon-Weiner H'	3.37	3.99	Five, annual from 2010-2014 (high)
Pielou’s J'	0.57	0.67	Five, annual from 2010-2014 (high)
Percent opportunists	10% (Caution) 25% (Warning)		None

*High range thresholds (in Red) are proposed for deletion.

As promised in the proposal for interim CP modifications, MWRA has begun reporting on the per-survey abundance of *Phaeocystis* in its Contingency Plan Quarterly Reports⁵, and the retention of the low diversity thresholds (which have never triggered an exceedance) means infaunal diversity will be reported when results become available.

⁴ http://www.mwra.state.ma.us/harbor/pdf/omsap/omsap_20161027_thresholds.pdf

⁵ See, for example, page 4 of <http://www.mwra.state.ma.us/harbor/pdf/2017q2cpqamb.pdf>

MWRA has reviewed the Contingency Plan to identify the changes necessary to incorporate these modifications. They are minimal, and MWRA believes they can be incorporated in a one-page addendum (Attachment I) to the 2001 Contingency Plan attached to the Permit. If you have any questions or need any additional information, please contact me at (617) 788-4359.

Sincerely,

Michael J. Hornbrook
Chief Operating Officer

List of Attachments

Attachment I Suggested Contingency Plan addendum incorporating the modifications.

Cc:

Environmental Protection Agency, Region I
Matthew Liebman
Todd Borci

MA Dept of Public Health
Michael Moore

Cape Cod Commission
Tom Cambareri

National Marine Fisheries Service
Daniel Morris

Outfall Monitoring Science Advisory Panel
Robert Beardsley

Stellwagen Bank National Marine Sanctuary
Benjamin Haskell

Robert Kenney
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Cathy Vakalopoulos

Public Interest Advisory Committee
Patty Foley

Hyannis Library
Ann-Louise Harries

MA Division of Marine Fisheries

MWRA Library
Patrick Thistle

Jack Schwartz

Attachment I

Suggested addendum #1 text for MWRA Contingency Plan¹.

Page 25 paragraph 2. Change the last sentence from:

“In addition, if the seasonal abundance of *Alexandrium*, *Pseudonitzschia*, or *Phaeocystis* becomes unusually high, a threshold will be triggered.”

to:

“In addition, if the seasonal abundance of *Pseudo-nitzschia* at nearfield stations in the vicinity of MWRA’s outfall becomes unusually high, or if *Alexandrium* is detected in nearfield samples at an abundance greater than 100 cells per liter, a threshold will be triggered.”²

Page 42 Table 5-5. Add a footnote to the table for “appreciable change”, as follows

1. “Appreciable change” for benthic diversity thresholds was identified from 2000 to 2016 as average diversities at nearfield stations in the vicinity of the outfall either higher or lower than expectations based on the distribution of baseline results. As of 2017, only tests against the low diversity thresholds will be conducted.

¹ MWRA. 2001. Massachusetts Water Resources Authority Contingency Plan Revision 1. Boston: Massachusetts Water Resources Authority. Report 2001-ms-71. 47 p. Available at <http://www.mwra.state.ma.us/harbor/enquad/pdf/2001-ms-71.pdf>

² The original seasonal *Alexandrium* threshold was replaced with the current 100 cells/liter threshold in the 2001 revisions to the Plan (See Table 5-1), but this text was not updated at that time.