

November 10, 2000

Ms. Arleen O'Donnell, Assistant Commissioner  
Bureau of Resources Protection  
Department of Environmental Protection  
1 Winter Street  
Boston, MA 02108

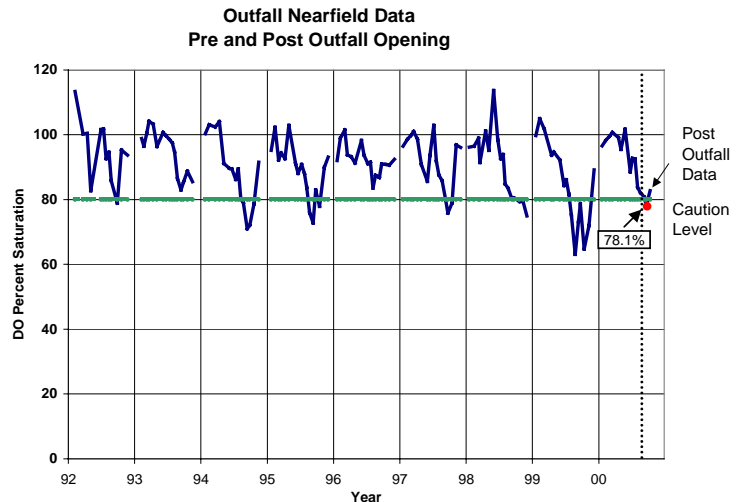
Ms. Linda Murphy, Director  
Office of Ecosystem Protection  
U.S. Environmental Protection Agency  
Water Technical Unit "SEW"  
P.O. Box 8127  
Boston, MA 02114

Re: Massachusetts Water Resources Authority, Permit Number MA0103284  
Notification Pursuant to Part I.8. Contingency Plan

Two water quality parameters which MWRA monitors for Contingency Plan purposes in the bottom waters of Massachusetts Bay are (1) the saturation percentage of dissolved oxygen and (2) the concentration of dissolved oxygen. The caution level in the Contingency Plan for the first parameter is not-to-be-below 80%. The caution level for the second parameter is not-to-be-below 6.5 mg/l.

Certain naturally-occurring conditions for dissolved oxygen documented by the baseline monitoring depicted in the figure at the right are well known. In the seasonal period when the water column is stratified (generally June - October), values for percent saturation of dissolved oxygen, for example, will often dip to or below the caution level. As the figure shows, this has occurred many times prior to the opening of the new outfall. Sometimes even the warning level (75%) has been crossed.

Water column monitoring conducted in October has shown that this situation has occurred again this year. The figure displays the data point for the average of the samples for the nearfield stations taken in early October (78.1%). The results for the monitoring stations in Stellwagen Basin were similar. Later sampling in the nearfield area shows that the dissolved oxygen levels have now returned above the caution level. The complete data for both monitoring vicinities is included in Attachment A.



These below-caution level results trigger a notification requirement under the Contingency Plan. This letter and its attachments constitute that notification.

While it is important that this situation is brought to everyone's attention under the Contingency Plan, it is also important for us to advise you and the public that MWRA believes, based on all the available data and information, including the baseline monitoring, that this is a situation caused by the same natural circumstances at work in other years, is not attributable to operation of the outfall, and is not a circumstance of adverse ecological significance.

There are three attachments to this letter:

[Attachment A](#): Data From Certain Water Column Monitoring Surveys

[Attachment B](#): Significance of Caution Levels Findings for Percent Saturation of Dissolved Oxygen  
Percent Saturation in Early October Survey

[Attachment C](#): Considerations Concerning Contingency Plan Threshold Levels for Dissolved Oxygen

Please let me know if any of MWRA's staff can give you additional assistance regarding this notification.

Sincerely,

Michael J. Hornbrook  
Chief Operating Officer

This table summarizes the sampling results from water bottom surveys at the nearfield stations and at the Stellwagen Basin farfield stations on October 3, 4 and 5, 2000 (Survey WFOOE) and again at selected nearfield stations on October 24, 2000 (Survey WNOOF). Contingency Plan caution level thresholds were crossed for the dissolved oxygen percent saturation parameter at both nearfield and Stellwagen Basin stations in the early October survey. (Map showing locations of sampling stations can be found at [http://www.mwra.state.ma.us/harbor/graphic/all\\_stat.gif](http://www.mwra.state.ma.us/harbor/graphic/all_stat.gif).) Final data for the October 3-5 Survey was received by MWRA on November 7, 2000.

Survey	Dissolved Oxygen Concentration		Dissolved Oxygen Percent Saturation	
	Nearfield	Stellwagen Basin	Nearfield	Stellwagen Basin
Early October (WF00E)	7.08 mg/l	7.31 mg/l	78.1% ✓	77.9% ✓
Late October (WN00F)	7.41 mg/l	Not surveyed	82.7%	Not surveyed

✓ Falls below caution level threshold of 80%. All other values are on the proper side of the applicable caution level thresholds

Cc:

**Environmental Protection Agency, Region I (EPA):**

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Nancy Kurtz

[See Attachments A- C](#) (PDF)