

Provincetown Center for Coastal Studies



June 15, 2009

Dr. Andrew Solow, Chair
Outfall Monitoring Science Advisory Panel
WHOI Marine Policy Center
Crowell House, MS #41
266 Woods Hole Road
Woods Hole, Mass. 02543

Dear Dr Solow:

On behalf of the Provincetown Center for Coastal Studies (PCCS) I offer the following comments on the April 15, 2009 proposal by the MWRA to modify its Ambient Monitoring Program. I commend the MWRA for the extensive and highly professional work it has supported to understand the physical and biological processes of Boston Harbor and Massachusetts and Cape Cod bays and evaluate the potential impacts of its outfall on the harbor and bays ecosystem.

PCCS would like to draw your attention to the MWRA statement in its March 2009 water column monitoring report for Massachusetts Bay that "the decline in zooplankton abundance will continue to be a focus of the monitoring program"¹ Assessing the causes and dimensions of the decline in overall abundance of zooplankton in the bay ecosystem since 2001² is especially significant given the importance of this zooplankton resource to the rare and endangered northern right whale. PCCS urges the Outfall Monitoring Science Advisory Panel to recommend retention of the Cape Cod Bay stations because changes in the zooplankton resource will likely have a profound impact on the success of right whales that seasonally forage in the federally designated Cape Cod Bay Critical Habitat.

MWRA's March 2009 water column monitoring report also discusses the elevated levels of nitrate (higher than the baseline range and the post-diversion mean)³ found in the nearfield and Cape Cod Bay stations. PCCS' Cape Cod Bay Monitoring Program found similar results. There has been a statistically significant increase in nitrate levels in the surface waters of the eight offshore stations we have monitored in the bay since 2006. PCCS believes continued monitoring of the farfield stations in Cape Cod Bay is important to a refined assessment of whether the fluctuations in nearfield nutrient levels, over time, are associated with the outfall, or, as suggested by both MWRA's data and PCCS' data, the result of larger scale processes.

In summary, we believe that the monitoring of Cape Cod Bay stations should be continued in order to support the ongoing assessment of trends in the zooplankton resource and in nitrogen concentrations.

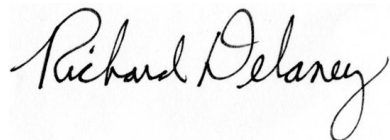
¹ Libby PS, Borkman D, Geyer WR, Keller AA, Turner JT, Mickelson MJ, Oviatt CA. 2009. **Water column monitoring in Massachusetts Bay 1992-2007: focus on 2007 results**. Boston: Massachusetts Water Resources Authority. Report 2009-04. 162 p.(incl. appendices) p. 5.5

² Ibid. p. 3.23-3.26

³ Ibid. p. 3-15 and p.5.3

Furthermore, continued monitoring of Cape Cod Bay is important because the bay stations, being in the "far field", place the contribution (or lack thereof) of the outfall to such trends in a larger spatial context. Therefore we encourage the continued monitoring and assessment of conditions in Cape Cod Bay as important to the conservation of right whales and to our understanding of the influential patterns of change to which the outfall may be contributing.

I hope these comments are helpful to the Panel's discussions of the proposed changes to MWRA's Ambient Monitoring Program. If Panel members have any questions or would like additional information, PCCS scientists would be pleased to respond to them.

A handwritten signature in black ink that reads "Richard Delaney". The signature is written in a cursive style with a large initial 'R' and 'D'.

Richard Delaney
Executive Director
Provincetown Center for Coastal Studies