

August 25, 2006

Mr. Glenn Haas, Director
Division of Watershed Management
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

Dear Mr. Haas and Ms. Murphy:

One of the four Deer Island Treatment Plant effluent toxicity tests that MWRA conducts every month is the *Menidia beryllina* (inland silverside minnow) chronic test which measures the growth and survival of juvenile fish in six dilutions of effluent. On August 21, 2006 MWRA received the results of its *Menidia beryllina* chronic growth and survival test that was performed on a series of samples collected July 11-17, 2006. The fish in the 1.5% effluent dilution had a lower survival rate than fish in the control group, which is a permit limit exceedance. This result triggers a notification requirement under the Contingency Plan. This letter constitutes that notification.

All other requirements of the permit were met on July 11-17, including the other three toxicity tests, and there were no operational upsets during this period that would have caused the Deer Island Treatment Plant to violate other parameters within the permit. Because it is a biological testing process, toxicity testing is subject to variables that are not always well-understood. In this instance, the next highest concentration of effluent, 6.25%, did *not* show excess toxicity relative to the controls. This level would not have been a permit exceedance. The 12.5%, 25%, 50% and 100% effluent did show toxicity relative to the controls, however these levels also would not constitute permit exceedances. Although it is known that the *Menidia* chronic test can be affected by ammonia levels, levels of ammonia in the samples were not higher than in samples that ordinarily pass the test.

MWRA is analyzing this result and previous data to explore what may be potential causes of this toxicity test failure. Levels of toxic pollutants in the effluent were relatively low, flow was relatively low. Overall secondary was 99.8% for the period between July 11 - 17; 100% of flow received full secondary treatment except for July 12, when the percent secondary dropped to 98.5% because of a short storm event on that day. Conventional pollutants averaged 8.2 mg/L for Total Suspended Solids, and 5.3 mg/L for cBOD, well below the permit limits of 45 mg/L and 40 mg/L, respectively.

Figures 1 and 2 summarize the results of the four toxicity tests conducted on DITP effluent over the past 13 months.

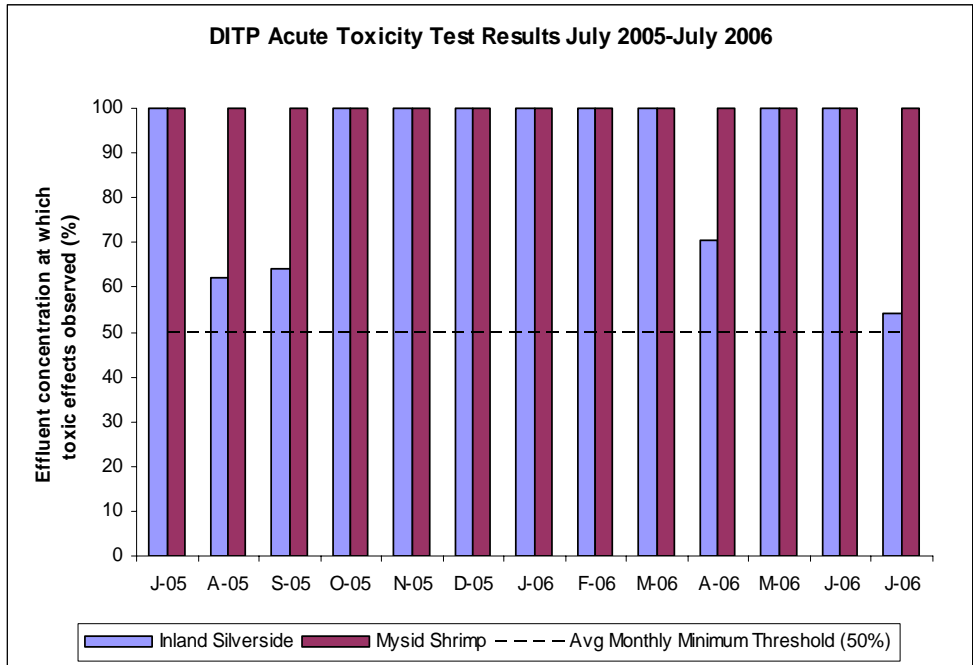


Figure 1 Results of acute toxicity testing on inland silverside minnow and mysid shrimp for DITP effluent. Bars above the dotted line indicate the test was passed.

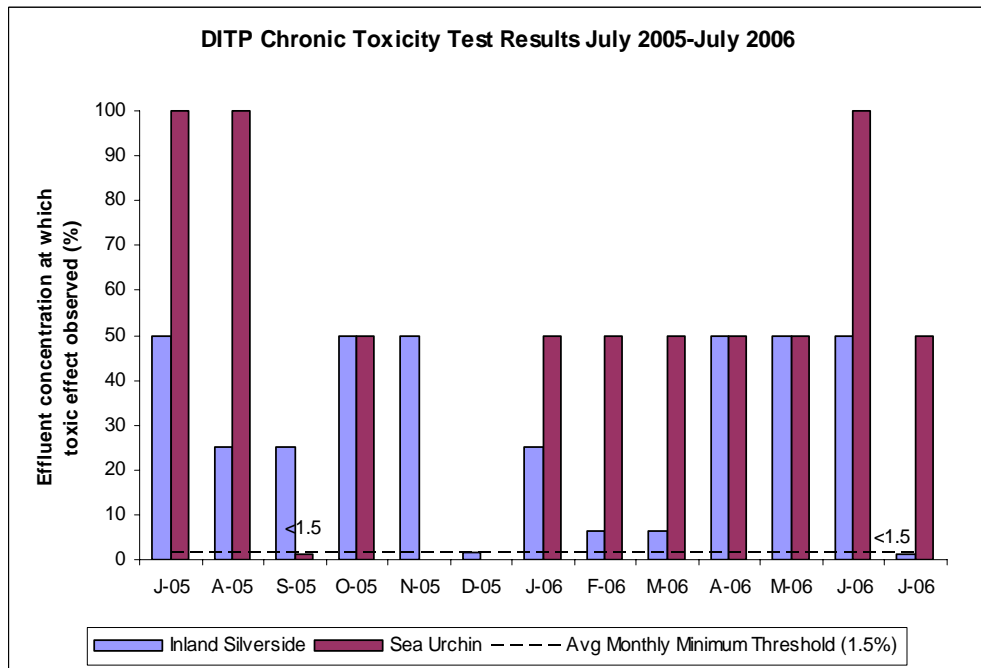


Figure 2 Results of chronic toxicity testing on inland silverside minnow and sea urchin fertilization for DITP effluent. Bars above the dotted line indicate the test was passed. (Note: The inland silverside minnow test in December 2005 passed at the 1.5% level. The testing laboratory was not able to successfully conduct the sea urchin fertilization tests in November and December 2005 due to the condition of the test animals; the sea urchin fertilization test failure in September, 2005 was the only other toxicity text failure over the past 13 months.)

Please let me know if I can give you additional information regarding this notification.

Sincerely,

Michael J. Hornbrook
Chief Operating Officer

Cc:

Environmental Protection Agency, Region I

Matthew Liebman
Todd Borci
Roger Janson

National Marine Fisheries Service

Chris Mantzaris

Stellwagen Bank National Marine Sanctuary

Craig MacDonald

MA Department of Environmental Protection

Cathy Vakalopoulos
Kevin Brander

EOEA

Kathy Baskin

MA Division of Marine Fisheries

Jack Schwartz

Outfall Monitoring Science Advisory Panel

Andrew Solow
Robert Beardsley
Norb Jaworski
Scott Nixon
Judy Pederson
Michael Shiaris
James Shine
Juanita Urban-Rich
Robert Kenney

Hyannis Library

Ann-Louise Harries

MWRA Library

Mary Lydon

Cape Cod Commission

Steve Tucker