

June 27, 2003

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
Proposed interim change to Ambient Monitoring Plan

Dear Mr. Haas and Ms. Murphy:

By this letter, the Massachusetts Water Resources Authority ("MWRA") requests an interim revision to the Ambient Monitoring Plan which is attached to the permit.¹ MWRA requests a modification to "Soft-bottom benthos in the nearfield and farfield," which is described on pages 4-5 and 4-7 of the outfall Ambient Monitoring Plan.

Specifically, MWRA is seeking approval to implement a change in schedule for comprehensive sediment contaminant sampling, from annual sampling to sampling every third year. Currently, MWRA collects samples and carries out analyses for contaminants (polynuclear aromatic hydrocarbons, polychlorinated biphenyls, pesticides, metals, and linear alkyl benzenes) from all nearfield stations and farfield stations annually. MWRA is proposing to sample for contaminants at all nearfield and farfield stations every third year (i.e. 2002, 2005) and to sample and analyze replicate samples for contaminants at stations NF12 and NF17 for years 2003 and 2004.

If the interim revision is approved, MWRA will not carry out comprehensive sampling for sediment contaminants in August 2003. Instead, MWRA will do the following during its outfall benthic monitoring in August 2003:

¹ Part I.7.c.iii of the NPDES Discharge Permit provides: "The permittee may also propose interim modifications at any time. Such interim modifications will become effective thirty (30) days after the permittee provides written notice to EPA, MADEP, OMSAP, NMFS, and the public (See: Part I.20.e. of this permit), unless there is a written objection from EPA or the MADEP. Such approvals will be effective until EPA and the MADEP take action on the permittee's next annual submission."

1. Sample and analyze replicate samples for contaminants at stations NF12 and NF17 (Figure 1).
2. Sample nearfield (Figure 1) and farfield (Figure 2) stations for benthic infauna, grain size, total organic carbon (TOC), and *Clostridium perfringens* spores as described on pages 4-4 and 4-5 of the Ambient Monitoring Plan.

The modification was reviewed and approved in general by the Outfall Monitoring Science Advisory Panel (“OMSAP”) on April 1, 2003 and the choice of NF12 and NF17 as stations where annual contaminant samples will be collected was approved by OMSAP on June 18, 2003.

Rationale: A summary of the study design, findings, and rationale for decreasing the frequency of sediment contaminant sampling at most sites to every third year, skipping 2003 and 2004, forms chapter IV of MWRA’s briefing package for the March 31 to April 1, 2003 OMSAP workshop.² A more detailed rationale for the selection of stations NF12 and NF17, requested by OMSAP, formed a separate briefing for the June 18 and 19 OMSAP workshop.³

The Ambient Monitoring Plan (pages 4-7 middle, 4-13 top) suggested the annual measurement frequency for contaminants should be revisited when discharge data were available, and that sampling every 3 to 5 years would be appropriate. MWRA found no increases in contaminants in either nearfield or farfield sediments in 2001 or 2002, and found no indication that sediment reducing conditions (e.g. increased TOC or decreased redox potential discontinuity) were increasing. An effluent signature has been detected in sensitive measurements of *C. perfringens* spores and silver concentrations in sediment trap samples from the nearfield,⁴ and in *C. perfringens* data from ambient monitoring stations within about 2.5 kilometers of the outfall in 2001 and 2002. Those measurements would continue under this proposed change.

Results of sediment contaminant sampling at stations NF12 and NF17 in 2003 will be used in conjunction with the other sediment quality results to help evaluate the status of the sediments. For example, if unexpected results from the *C. perfringens* sampling were observed, they might be reflected in contaminant concentrations at those sites. Such information could be used, in consultation with OMSAP and regulators, to indicate whether more widespread sediment contaminant sampling should occur before 2005.

² MWRA. 2003. Briefing for OMSAP workshop on ambient monitoring revisions, March 31-April 1, 2003. Boston: Massachusetts Water Resources Authority. Report ms-083. 96 p. Available online at <http://www.mwra.state.ma.us/harbor/enquad/pdf/ms-083.pdf>

³ MWRA. 2003. Rationale for sediment contaminant monitoring station selection. Supplement to Chapter IV of briefing for OMSAP workshop on ambient monitoring revisions, March 31-April 1, 2003 (MWRA 2003). Available online at http://www.mwra.com/harbor/pdf/sedstation_rationale.pdf

⁴ Bothner MH, Casso MA, Rendigs RR, and Lamothe PJ. 2002. The effect of the new Massachusetts Bay sewer outfall on the concentrations of metals and bacterial spores in nearby bottom and suspended sediments. *Marine Pollution Bulletin* v. 44, No. 2, pp 1063-1070.

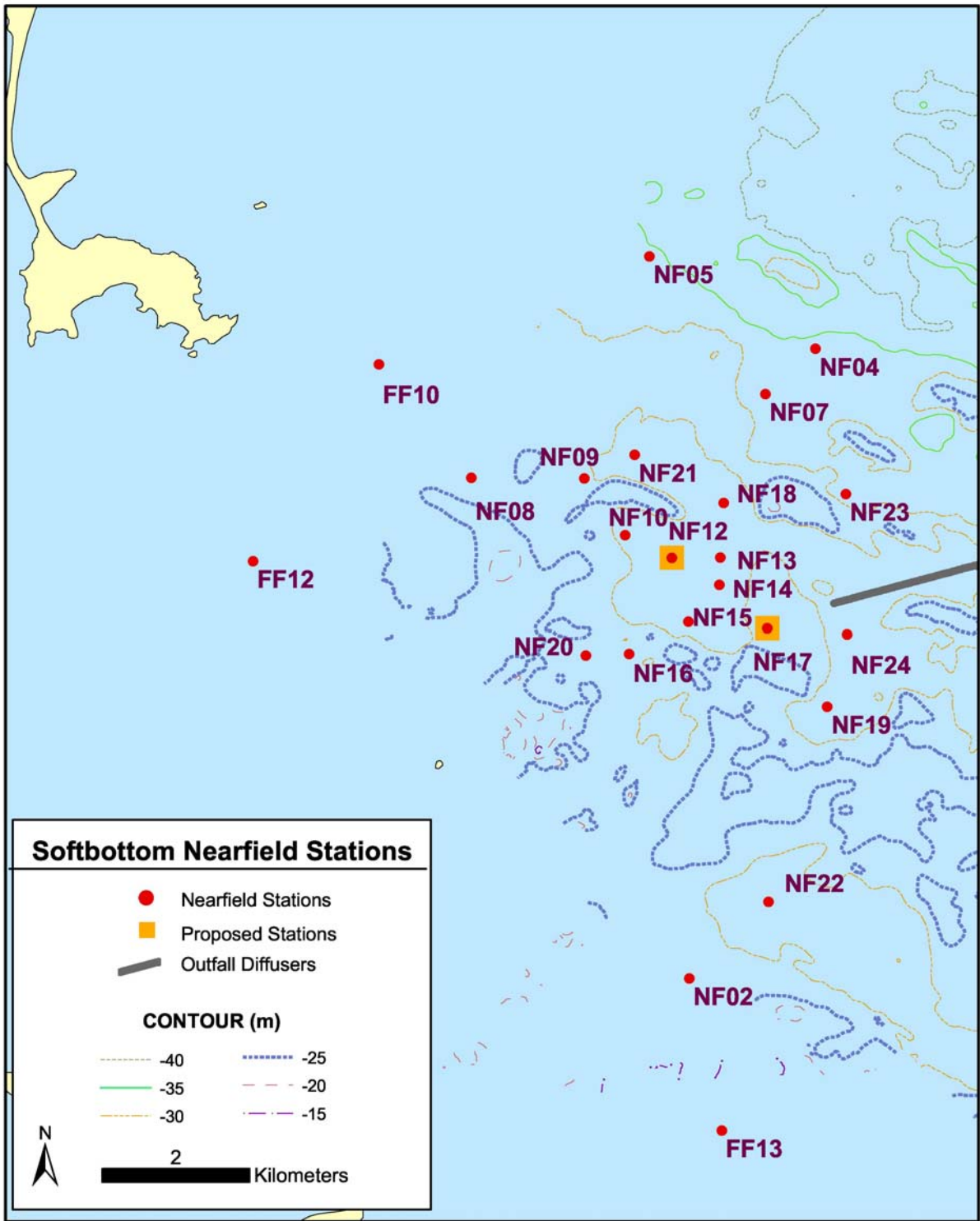


Figure 1. Locations of nearfield soft-bottom stations, including stations NF12 and NF17.

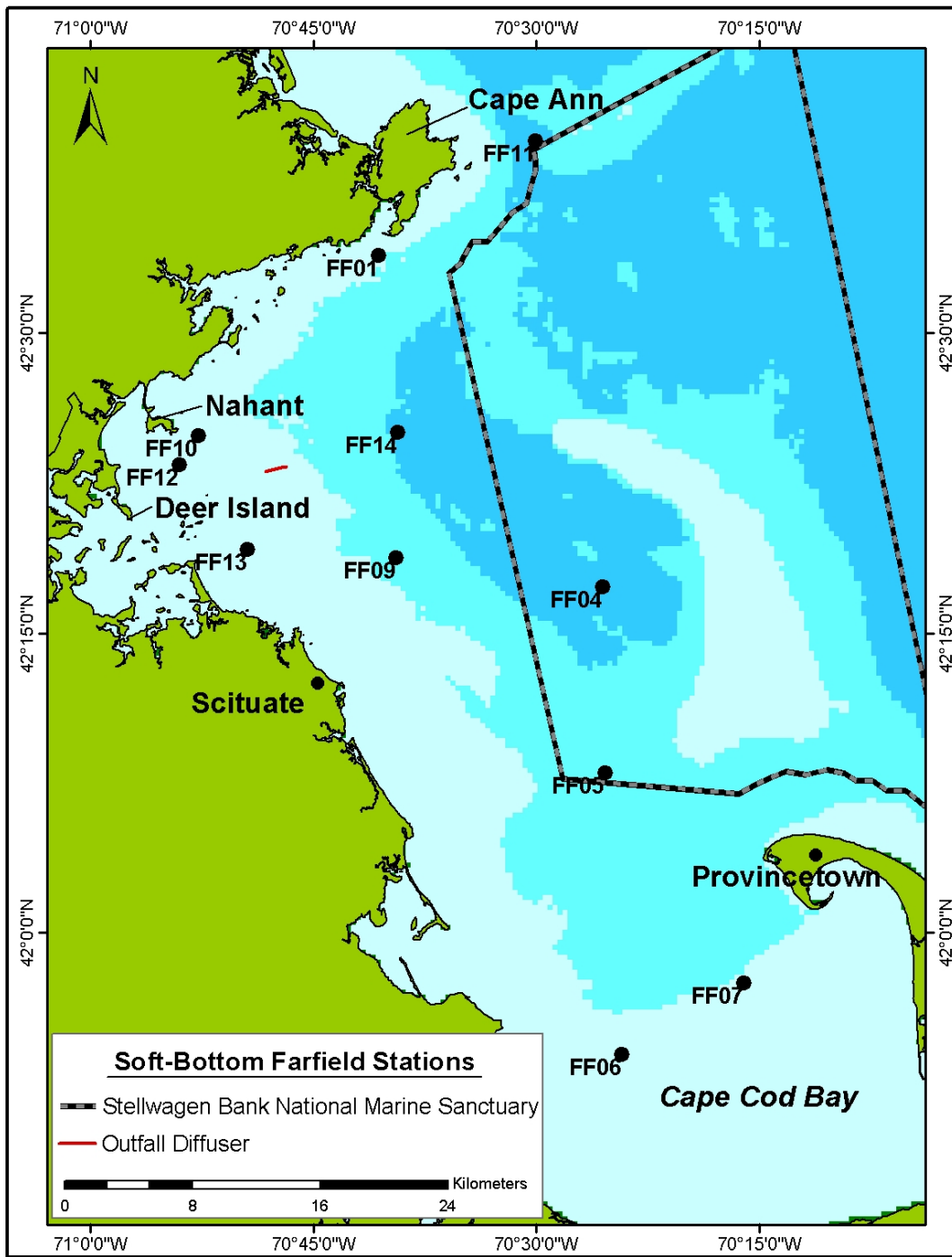


Figure 2. Locations of farfield soft-bottom stations.

MWRA appreciates the consideration EPA and DEP have given to the ongoing process of revising the ambient monitoring program. MWRA shares EPA and DEP's view that the monitoring plan, as a "living document," needs to be reviewed and improved or revised based on current scientific understanding.

Sincerely,

Michael J. Hornbrook
Chief Operating Officer

Cc:

Environmental Protection Agency, Region I (EPA)

Matthew Liebman
Janet Labonte-Deshais
Eric Hall
Roger Janson

Massachusetts Department of Environmental Protection (DEP)

Steve Lipman
Cathy Coniaris

Outfall Monitoring Science Advisory Panel

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

National Marine Fisheries Service

Salvatore Testaverde

Stellwagen Bank National Marine Sanctuary

Craig MacDonald

Food and Drug Administration

Martin Dowgert

EOEA

Karl Honkonen

Hyannis Library

Ann-Louise Harries

MWRA Library

Mary Lydon

Public Interest Advisory Committee

Patty Foley

Cape Cod Commission

Steve Tucker