ENSR International
89 Water Street
Woods Hole, MA 02543-1025
(508) 457-7900
FAX (508) 457- 7595
www.ensr.com

ENSR Reference No.: 9000-218

23 February, 2001

New Bedford
84
217264

U.S. Army Corps of Engineers
New England District
Concord Park
696 Virginia Road
Concord, MA 01742

Attention: Mr. Joseph Mckay

Re: Contract No. DACW 33-96-D-0004
DELIVERY ORDER NO. 0037
New Bedford Harbor Long-Term Monitoring III
Final Summary Report

Dear Jay:

I am pleased to submit the Final Version of the Report: NEW BEDFORD HARBOR LONG-TERM MONITORING SURVEY III: SUMMARY REPORT. This final version incorporates the technical comments submitted by Skip Nelson, Dave Dickerson, and you.

A total of 25 copies are distributed as follows: W. Nelson (10); D. Dickerson (10); J. Mckay (5).

Please feel free to contact me if there are any questions.

Sincerely,

James A. Blake

James A. Blake, Ph.D.
Project Manager

cc: J. Reid/M. Kane
File No. 9000-218
C. Keyworth/D. Galya
W. Nelson, EPA
D. Dickerson, EPA

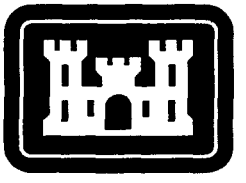
SDMS DocID 000217264

SITE FILE
8.4
New Bedford

Final

New Bedford Harbor Long Term Monitoring Survey III: Summary Report

Submitted to



U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Prepared by

ENSR INTERNATIONAL

Under

Contract No. DACW33-96-D-0004
Task Order No. 037

March 2001

Certification

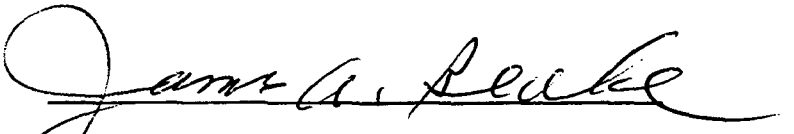
This submission has been subjected to internal review in accordance with ENSR's review and coordination procedures to ensure:

(a) completeness for each discipline commensurate with the level of effort required for the submission

(b) elimination of conflicts, errors and omissions, and

(c) the overall professional and technical accuracy of the submission.

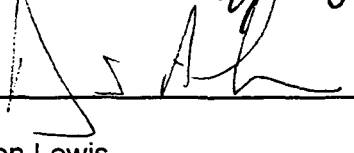
Signed for ENSR

Signature 

Name James A. Blake

Title Senior Program Manager

Date 23 February 2001

Signature 

Name Dion Lewis

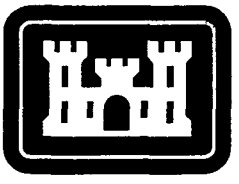
Title Senior Marine Chemist

Date 7 MARCH 01

Final

New Bedford Harbor Long Term Monitoring Survey III: Summary Report

Submitted to



U.S. Army Corps of Engineers, New England District
696 Virginia Road
Concord, Massachusetts 01742-2751

Prepared by

James A. Blake, Pamela L. Arnofsky, Dion Lewis, Nancy J. Maciolek, Debra McGrath, David Mitchell, and Isabelle P. Williams

Under

Contract No. DACW33-96-D-0004
Task Order No. 037

March 2001

CONTENTS

CONTENTS (Cont'd)

APPENDICES

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

The New Bedford Harbor (NBH) Superfund Site, located in southeastern Massachusetts, extends from the shallow northern reaches of the Acushnet River estuary south through the commercial harbor of New Bedford and into 17,000 adjacent acres of Buzzards Bay. Industrial and urban development surrounding the harbor has resulted in sediments becoming contaminated with high concentrations of many pollutants, notably polychlorinated biphenyls (PCBs) and heavy metals, with contaminant gradients decreasing from north to south. From the 1940s into the 1970s, two electrical capacitor manufacturing facilities, one located near the northern boundary of the site and one located just south of the NBH hurricane barrier, discharged PCB wastes either directly into the harbor or indirectly via discharges to the city's sewerage system.

Currently on the National Priorities List (NPL), the harbor has been divided by the U.S. Environmental Protection Agency (EPA) into three study areas: the upper, lower, and outer harbors. The upper harbor is the most contaminated segment, with historical PCB concentrations recorded up to 100,000 ppm. This area and adjacent sites in the lower and outer harbor are closed to commercial and recreational fishing. Because of the potential danger to human health, a remediation plan is underway to remove PCB-contaminated sediments from the harbor. Approximately 14,000 yd^3 of the most contaminated sediment in the upper harbor were removed in 1994 and 1995. Planning is currently underway to remove the remaining contaminated sediment beginning in late 2002.

In an effort to assess the effectiveness of the Superfund remedies, a long-term monitoring (LTM) plan was developed by the EPA's Research Laboratory, Atlantic Ecology Division (EPA/AED) in Narragansett, Rhode Island. The LTM project focuses on the ecological health of the sediments and includes collection of data on sediment chemistry, grain size, toxicity, and benthic infauna. A limited hydrographic effort was also performed to measure temperature, salinity, and dissolved oxygen from water near the bottom at each of the sediment stations.

Two previous sampling rounds for this program include baseline sampling conducted in October 1993 (LTM I) and a second event (LTM II) conducted immediately after removal of the "hot spot" sediments in October 1995. LTM III, conducted from September to November 1999, represents the third sampling round of the EPA/AED plan. Sampling was conducted at 79 separate stations located in the three areas of New Bedford Harbor. The main parameters measured in the monitoring program include acid volatile sulfide, nine metals, 18 PCB congeners, total organic carbon, and sediment grain-size composition; sediment is also collected for assessing toxicity and for developing benthic community data. A review of the history of PCB contamination and remediation efforts in NBH together with a summary of the long-term monitoring strategy and results of the 1993 survey are presented in Nelson et al. (1996).

EPA New England has overall responsibility for all phases of the study. EPA/AED developed the sampling design, provided technical support, and participated in quality assurance oversight. The U.S. Army Corps of Engineers (USACE) was responsible for implementing LTM III, including oversight of USACE's contractor, ENSR, who performed the field sampling, oversaw sample analysis, and prepared the report. Boat services and laboratory analyses for chemical, physical, and biological parameters were provided under subcontract to ENSR.

2.0 METHODS

2.1 Quality Assurance

Quality Assurance (QA) for this project is presented in detail in the Quality Assurance Project Plan (QAPP) developed for this project (ENSR, 1999). As part of the QA program, the ENSR QA Officer, Ms. Debra McGrath, conducted field audits in order to ensure that the field team understood and was using the appropriate methodology for field sampling; audited the subcontractor laboratories performing the chemistry and toxicology analyses; and validated the entire data set before it was submitted.

2.2 Field Methods

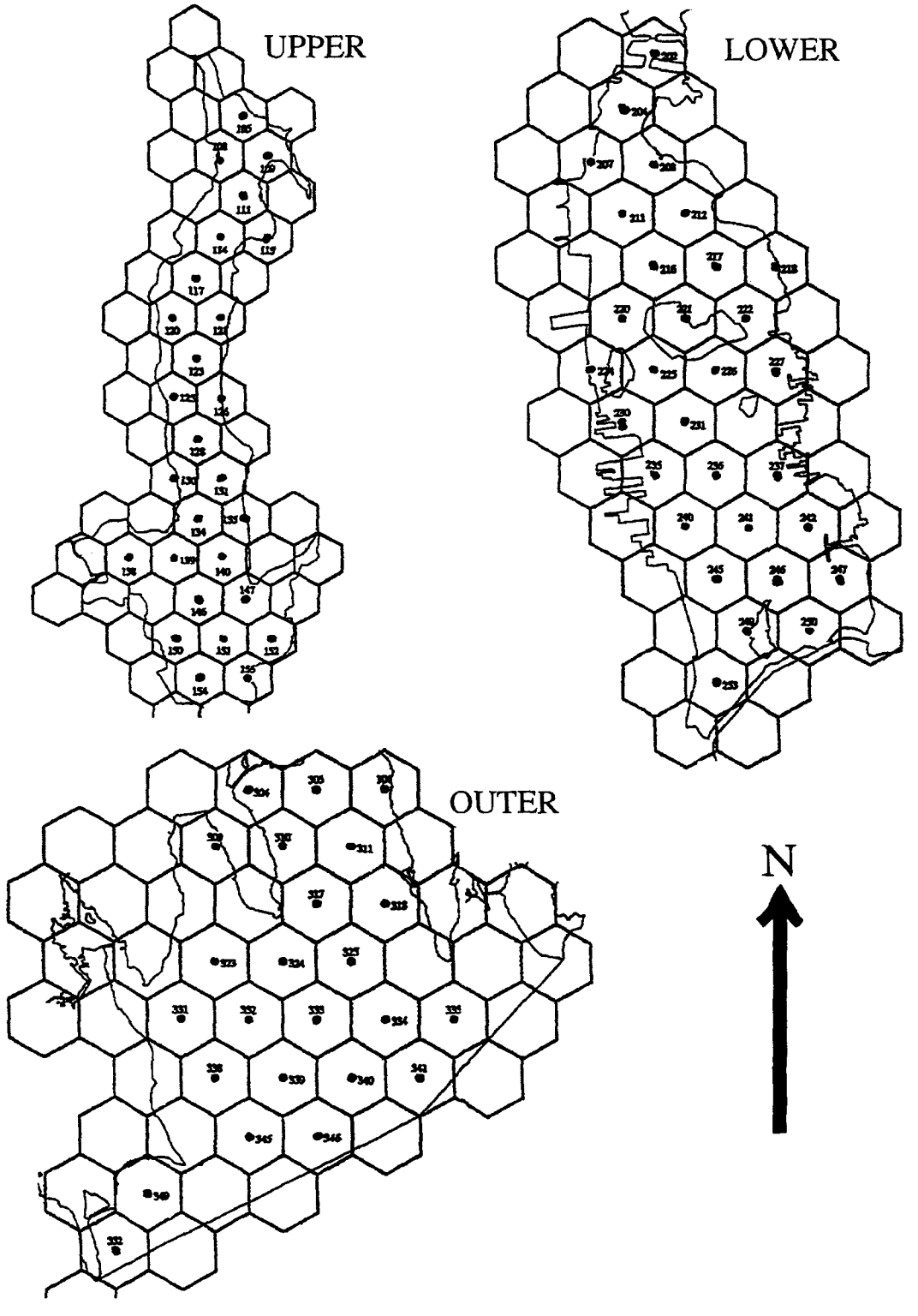
The areal coverage and sampling strategy was based on a format originally developed as part of the Environmental Monitoring and Assessment Program (EMAP) as implemented for the baseline sampling conducted in 1993 (Nelson et al., 1996):

- ***Segment 1*** (Upper Harbor) included the area north of the Coggeshall Street Bridge and those sediments identified as most contaminated (27 stations),
- ***Segment 2*** (Lower Harbor) included the area between the Coggeshall Street Bridge and the hurricane barrier (29 stations),
- ***Segment 3*** (Outer Harbor) included the area beyond the hurricane barrier and a transition into Buzzards Bay to the edge of the Fishing Closure Area III (23 stations).

Within each of these segments, a systematic hexagonal grid consisting of approximately 30 units (stations) was applied (Figure 1). Because the area encompassed by Segments 1, 2, and 3 becomes progressively larger, the size of individual hexagons is adjusted according to the size of the segment. This means that the hexagons are approximately 0.25-mile wide in Segment 1, 0.5-mile wide in Segment 2, and over 1-mile wide in Segment 3. Theoretically, any position sampled within a hexagon would constitute a station location, but in actual practice the coordinates in the center of each hexagon were used as the original target location.

Navigation was performed using a Northstar 941X Differential Global Positioning System (DGPS). Stations were located using the target coordinates established during the 1993 and 1995 surveys. For the most part, these target locations were suitable sites for grab sampling, but there were instances where underwater hazards or sedimentary conditions precluded successful sampling and it was necessary to reposition within the station hexagon boundaries. The actual coordinates for the 79 stations sampled are provided in Appendix 1. Stations are formally designated "NB99-xxx" to

Figure 1. Map Showing Station Numbering System for New Bedford Harbor Benthic Monitoring.



designate the current sampling year, but for simplicity's sake this prefix will not be used in the remainder of this report.

Field measurements of temperature, dissolved oxygen, and salinity were taken 1 m above the bottom at each of the 79 stations using a YSI Model 6920 multiparameter water quality monitor. A stainless steel 0.04-m^2 Ted Young (modified Van Veen) grab was used to take all biology (benthic infaunal) samples and some of the chemistry/toxicity samples. The majority of the chemistry/toxicity samples were taken with a larger 0.1-m^2 Ted Young grab. Both grabs were coated with Kynar, a Teflon-like substance intended to protect the chemistry samples from contamination from the grab itself. Three replicate grabs were taken for benthic biology at each station and a variable number of grabs were taken in order to obtain sufficient sediment for the chemistry/toxicity samples.

Benthic biology samples were checked for depth of penetration (7 cm was considered acceptable), depth of the apparent redox potential depth (RPD), and sediment color and texture. A rough description of the appearance of the sediment was included in the field notes. After removal of a 2.5-cm core for sediment grain-size analysis, the samples were washed into a bucket, sieved through a 500-μm screen, and fixed in 10% buffered formalin. These samples were later resieved, rinsed with freshwater, and preserved in 80% ethanol. The grain-size core was extruded into a pre-labeled WhirlPac and stored on ice.

Sediment chemistry/toxicity samples were inspected for an undisturbed surface and acceptable penetration depth. Small syringes were inserted into the sediment for extraction of sediment for acid volatile sulfide (AVS) levels. AVS samples were placed in a 2-oz jar that was filled to the top and placed on ice. The top 2–4 cm of sediment was then removed from the grab with a stainless steel spoon or scoop and placed in a large stainless steel pan with a lid. Grab sampling continued until approximately 4 L of sediment had been accumulated. The composited sediment was then stirred with the spoon until it was smooth and large clumps were gone. Sediment subsamples were removed and placed in a 4-oz jar for metals and total organic carbon (TOC) analyses and a 16-oz jar for PCB analysis. Another subsample was removed and put in a WhirlPac for grain-size analysis. The remaining sediment was put into a 1-gal polyethylene container for use in toxicity testing. All samples were packed in ice.

At the end of each day, the benthic biology samples were transferred to an on-site field laboratory that was provided to ENSR for this project by the USACE. The facility is located at the USACE Project Site on Sawyer Street in New Bedford. Samples were held in formalin for no more than 48 hr after collection, at which time they were transferred to 80% ethanol. A technician, who was stationed at the facility for the majority of the time the field team was sampling in the harbor, decanted the formalin from the sample through a 500-μm sieve. The waste formalin was treated as hazardous waste and disposed into the on-site waste treatment facility at the USACE Project Site on Sawyer Street. The benthic samples were resieved with fresh water to remove salt and then preserved in 80% ethanol.

The on-site technician provided a variety of services to the project, including printing out and organizing the field data sheets, transferring the benthic samples from formalin to alcohol, preparing chain-of-custody forms, arranging for pickups of chemistry and toxicity samples by the analytical laboratories, and assisting in the transfer of grain-size and benthic biology samples to the analytical laboratories. In addition, the technician organized the field datasheets that accumulated and began the process of developing the electronic database.

Field data, including measurements taken, station location coordinates, and sample collection information, were transcribed directly into the field logbook and onto field datasheets. The format of the datasheets was based on those used during the 1993 and 1995 surveys. Electronic files of these sheets were provided by the EPA and printed by ENSR in the field laboratory. If errors were made, results were legibly crossed out, initialed and dated by the person recording the data. Corrections were written in a space adjacent to the original (erroneous) entry. Field data were reviewed by the Chief Scientist, Mr. Don Boyé, to ensure that records were complete, accurate, and legible. At the same time, the Chief Scientist verified that the instruments were calibrated and operated in accordance with the procedures specified in the QAPP. Any deviation from these procedures were reported to the Project Manager, Dr. James Blake, and discussed with Ms. McGrath the QA Officer. Data were entered from the field records into the database in order to establish electronic versions of the field hard copies. These were reviewed and approved by the Chief Scientist and QA Officer prior to release.

2.3 Laboratory Methods

2.3.1 Chemical Analyses

Table 1 summarizes the analytical methods used. PCB analysis was performed by Arthur D. Little, Inc. in Cambridge, Massachusetts. The EPA Environmental Research Laboratory Narragansett (ERLN), Standard Operating Procedure (SOP) *The Extraction of New Bedford Harbor Sediment Samples for PCBs* was used for this study, with modifications as stated in the QAPP (ENSR, 1999). The methods used to generate PCB data were specified by EPA/AED and are consistent with historical efforts to ensure data comparability. The 18 NOAA congeners were quantified using GC/ECD instrumentation.

Analyses of metals, TOC, and AVS were performed by Woods Hole Group in Raynham, Massachusetts. Extraction of metals samples was conducted using the ERLN SOP *Ultrasonic Extraction of Metals from Sediment Samples*, as modified in the QAPP (ENSR, 1999). The ERLN SOP for total digestion of sediment samples was not used, per discussions with EPA/AED. The methods for analyzing metals specified by EPA attack organic matter and remove contaminants from particle surfaces but do not completely dissolve the sediment matrix. For this reason, the resulting data do not represent "total" concentration values but rather represent the maximum bioavailable fraction.

Table 1. Laboratory Methods Used for Chemical Analyses of Samples Collected for the 1999 New Bedford Harbor LTM III Survey.

Analyte Group[1]	Laboratory SOP No.	Equivalent EPA Method No.[2]
PCBs	ADL-2819 (extraction)[3] ADL-2818 (analysis)	SW-846 3550A/3610/3660/3665 (EPA, 1986) SW-846 8082, modified (EPA, 1986)
Metals (Cu, Cr, Pb, Ni, Zn)	NA (digestion) WHG SOP 6010B ICP (analysis)	ERLN SOP *Ultrasonic Extraction of Metals from Sediment Samples* (see QAPP, Section 7.2.1 for modifications) SW-846 6010B (EPA, 1986)
Metals (As, Cd, Se)	NA (digestion) WHG SOP 6020 ICP-MS (analysis)	ERLN SOP *Ultrasonic Extraction of Metals from Sediment Samples* (see QAPP, Section 7.2.1 for modifications) SW-846 6020 (EPA, 1986)
Mercury	WHG SOP 7471 (preparation and analysis)	SW-846 7471A (EPA, 1986)
TOC	WHG SOP TOC 9060 Mod. for Soil/Sediment (preparation and analysis)	SW-846 9060, modified (EPA, 1986)
Percent Solids	NA	SM 2540G (APHA-AWWA-WPCF, 1992)
AVS	WHG SOP AVSSEM (preparation and analysis)	Boothman and Helmstetter, 1992

[1]See QAPP Section 1 for the compounds in each analyte group.
[2]References: see QAPP Section 15.
[3]Based on the ERLN SOP *The Extraction of New Bedford Harbor Sediment Samples for PCBs.* See QAPP for modifications.
NA indicates that the EPA method was used; ADL is Arthur D. Little, Inc; WHG is the Woods Hole Group.

One common model used to assess bioavailable metals in anoxic sediments is to examine sulfide (FeS) mineralogy (an effective metal-binding mineral) with respect to simultaneously extracted metals (Di Toro et al. 1992). The approach taken to assess this parameter measures AVS and simultaneously extracted metals. AVS measurements were within the scope of this project; however, simultaneously extracted metals were not.

2.3.2 Physical Analyses

Grain size analysis was performed by Geo/Plan Associates in Hingham, Massachusetts. Sediment grain-size was determined for sands using wet sieve analysis (NOAA, 1993) and for silt and clay using pipette analysis (NOAA, 1993; Head, 1992). Wet sieving yields percentages of the following phi-classes: gravel (>2.00 mm), very coarse sand (1.00-2.00 mm), coarse sand (0.50-1.00 mm), medium sand (0.25-0.50 mm), fine sand (0.125-0.25 mm), very fine sand (0.0625-0.125 mm), and silt-and-clay (<0.0625 mm). Pipette analysis results in percentages of silt (0.0039-0.0625 mm) and clay (<0.0039 mm).

2.3.3 Toxicity Testing

Ten-day acute exposure solid phase (sediment) toxicity tests with the amphipod *Ampelisca abdita* were performed by EnviroSystems, Inc. (ESI) in Hampton, New Hampshire. After log-in, toxicity sediment samples were placed in a secure refrigerator and stored at a temperature of 2-4°C until test initiation.

Control sediment used in the amphipod toxicity testing program was provided by EPA ERLN. The control sediment (designated CLIS Ref) was collected at the reference site for the Central Long Island Sound (CLIS) Disposal Site. Control sediment samples were received at ESI on September 16, October 11, and October 20, 1999. No written documentation was provided with the samples; however, ERLN staff verbally confirmed that sediment was collected from the Reference Area adjacent to the CLIS dredge spoil disposal site and that sediments had been pressure-sieved using a 2-mm mesh. Three gallons of sediment arrived in polyethylene jars and two gallons of sediment arrived in glass jars. Overlying water used in the testing was natural seawater collected by ESI from the Hampton/Seabrook Estuary. This water is classified as SA-1 and has been used to culture and test marine test organisms since 1991.

The testing was conducted in six series with a total of 79 New Bedford Harbor sediments during October to December 1999 (Table 2).

Table 2. New Bedford Harbor Sediment Collection and Test Series Dates.

Bioassay Number	Dates Collected	Date Test Started	Sediment Sample (Station) Numbers
1	09/15–20/99	10/08/99	235, 236, 240, 241, 242, 245, 247, 249, 250, 304, 305, 310, 311, 331, 349, 352
2	09/21–24/99	10/09/99	204, 207, 208, 211, 212, 216, 217, 220, 222, 224, 225, 226, 227, 230, 231, 253
3	09/24–29/99	10/24/99	123, 125, 126, 128, 131, 139, 147, 150, 151, 152, 154, 155, 221, 237
4	10/01–10/99	10/26/99	105, 111, 114, 115, 130, 134, 135, 138, 140, 146, 318, 325, 335, 339, 341
5	10/06–08/99	10/29/99	108, 109, 202, 309, 317, 323, 324, 332, 333, 334, 338, 340, 345, 346
6	10/27–11/18/99	11/23/99	117, 120, 121, 218

The testing protocol was based on methods and procedures presented in *Standard Operating Procedure for Conducting Acute Toxicity Testing using Ampelisca abdita* (EPA, 1990), *Laboratory Method Manual - Estuaries Volume 1: Biological and Physical Analyses* (EPA, 1993), and *Methods for Assessing the Toxicity of Sediment-associated Contaminants with Estuarine and Marine Amphipods* (EPA, 1994). Details of the protocols are included in the QAPP (ENSR, 1999), but in general were as follows:

- Assays were conducted using a static renewal test mode using five (5) replicates per treatment with 20 organisms per replicate.
- Test temperatures were 20±1°C and a salinity of 30 ±2ppt.
- Temperature, salinity, dissolved oxygen, and pH were monitored daily.
- Control sediment was from central Long Island Sound.
- Control survival was equal to or greater than 90%.

Several deviations from the study-specific protocol occurred during the testing program. These included slight exceedence of sample storage temperature criteria in the sediment sample storage refrigerator, deviations in *Ampelisca* holding circumstances, and deviations in temperature and dissolved oxygen levels during testing periods. The nature of the deviations were considered minor and it was the opinion of the ESI Study Director (Ms. Natalie Harris) that they had no impact on the outcome of the test. ENSR concurred in this opinion and is not aware of any additional circumstances of factors that may have affected the integrity of these studies.

Individual reports containing results on each of the test series from the New Bedford Harbor whole sediment testing program were provided by ESI and submitted to USACE and EPA in March 2000. These reports contain summarized test results and statistical comparisons.

2.3.4 Benthic Biology Analysis

Sorting, enumeration, and identification of the animals contained in the benthic biology samples was performed by Normandeau Associates in Bedford, New Hampshire, and by the ENSR Marine & Coastal Center in Woods Hole, Massachusetts. Sample processing generally followed protocols described in *EMAP Near-Coastal Laboratory Procedures Macrobenthic Community Assessment* (EPA, 1991), with the exception that biomass determinations were not made. All organisms were removed from the sediment residue and identified to the lowest possible taxon, usually species. Both laboratories exchanged information and specimens as part of an intercalibration exercise intended to ensure comparable identifications by both laboratories and to provide the most taxonomically correct species list possible.

3.0 RESULTS

3.1 Water Quality

The water quality data taken by CTD casts 1 m above each station sampled in the 1999 NBH program are given in Appendix 2.

3.2 Sediment Characterization

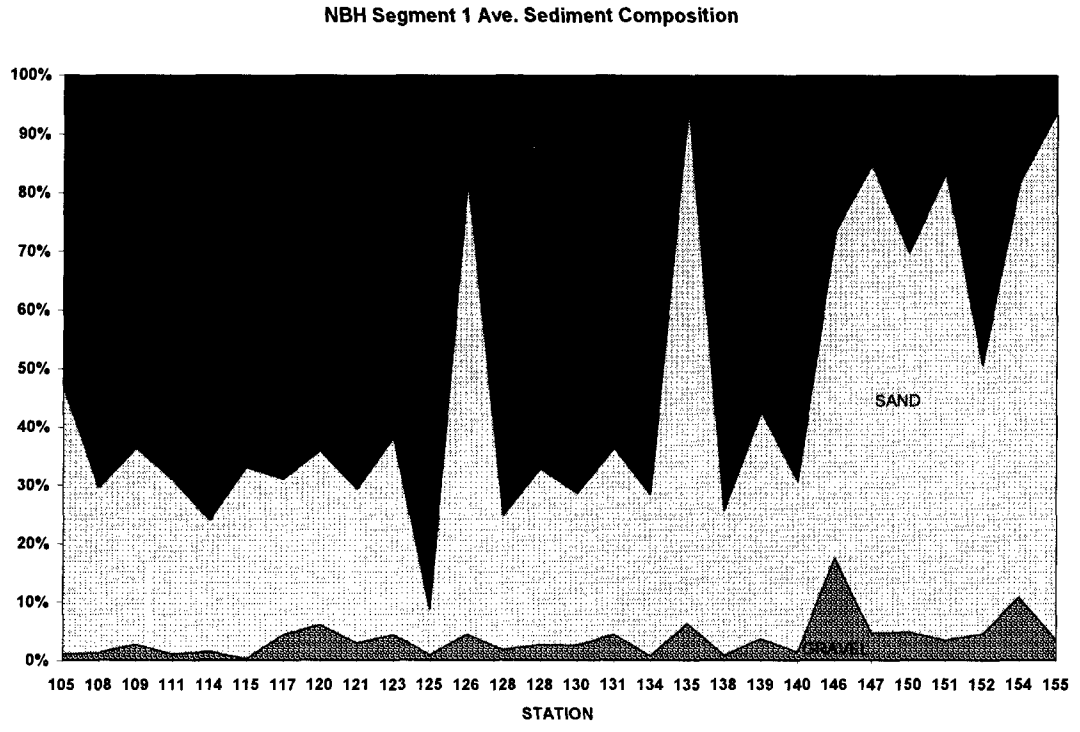
3.2.1 Grain Size

Sediment grain size composition was measured for four to six replicate samples at each station in each of the three segments of NBH. Details of these analyses are presented in Appendix 3; mean values of percent gravel, sand, and silt+clay are shown in Figures 2 and 3. Sediments in Segment 1, the Upper Harbor, had the highest percentages of silt+clay, and Segment 3, the Outer Harbor, had the lowest percentages of this size class. There was a general trend towards coarser sediments from the Upper through the Lower and into the Outer Harbor areas.

3.2.2 Total Organic Carbon

The total organic carbon (TOC) found in the sediments generally paralleled the trend of percent silt+clay: TOC was typically highest at stations where the silt+clay was also highest (Figures 4 and 5). In Segment 1 (Upper Harbor), the highest average values of TOC were 10.0, 10.1, and 10.0 % at Stations 108, 114, and 138, respectively; at these same stations, the percent silt+clay was 70.5, 76.0, and 74.4, respectively. The majority (15 of 27 replicates) of values ranged from 6.1 to 8.5, and were found primarily at stations in the central portion of Segment 1. Stations at the southern end of this segment (Stations 140–155) had the lowest TOC values of 0.52–5.5%. TOC values found at stations in Segment 2 (Lower Harbor) ranged from a high of 9.2% at Station 231 to a low of 0.16 at Station 202. The majority (17 of 30 replicates) of values ranged from 3.0 to 5.5%, and were found scattered throughout the segment, with no apparent north-to-south trend as seen in Segment 1. The lowest TOC values measured were found in Segment 3 (Outer Harbor); values ranged from a low of 0.04% at Station 306 to a high of 3.3% at neighboring Station 309. Nine of the 23 stations had TOC values of less than 1%; these stations were found throughout the segment, with no apparent north-to-south trend. Appendix 4 includes the sediment TOC data developed for samples taken in NBH in 1999.

Figure 2. Sediment Composition: Top, Upper Harbor; Bottom, Lower Harbor.



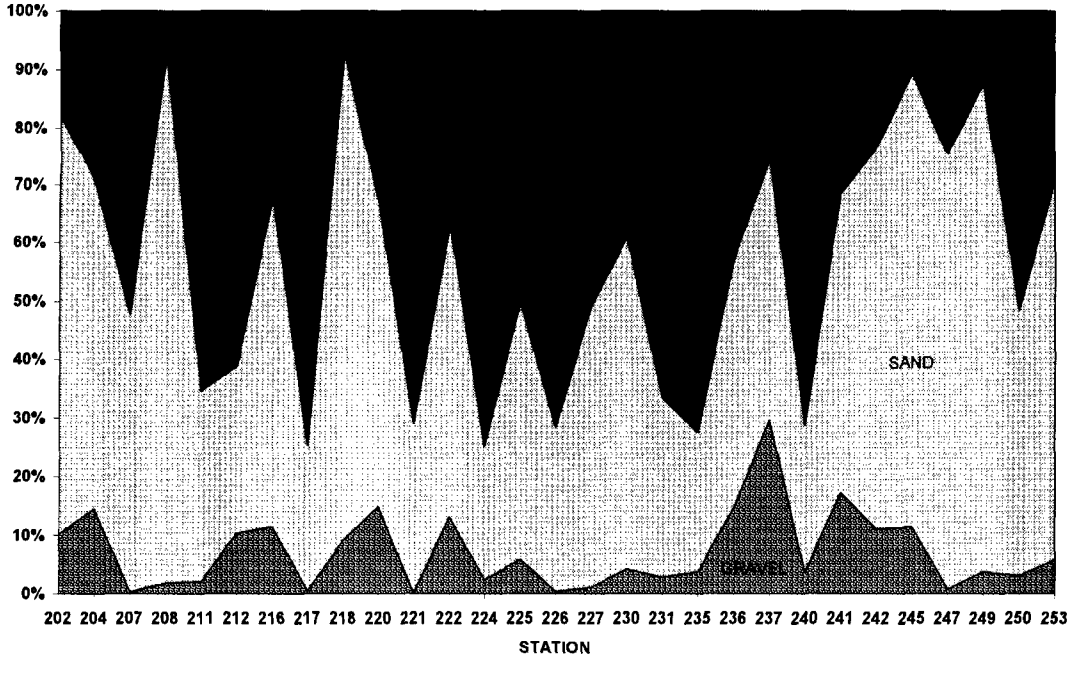


Figure 3. Sediment Composition: Outer Harbor.

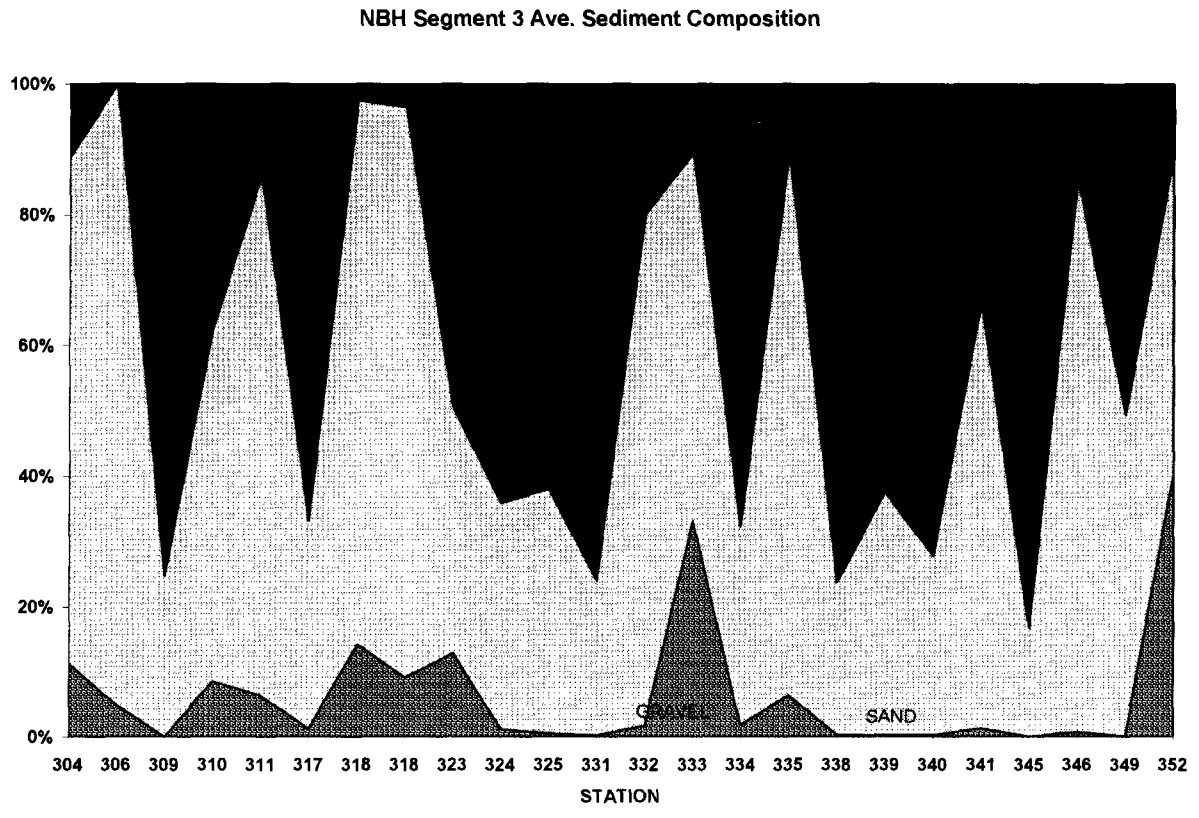
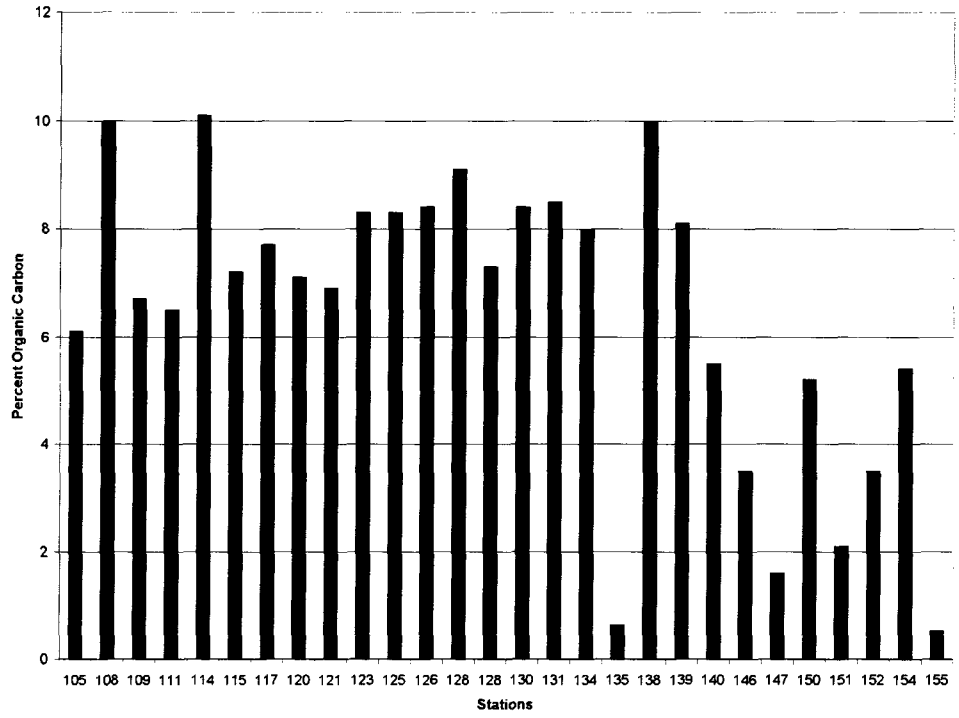


Figure 4. Total Organic Carbon: Top, Upper Harbor; Bottom, Lower Harbor.



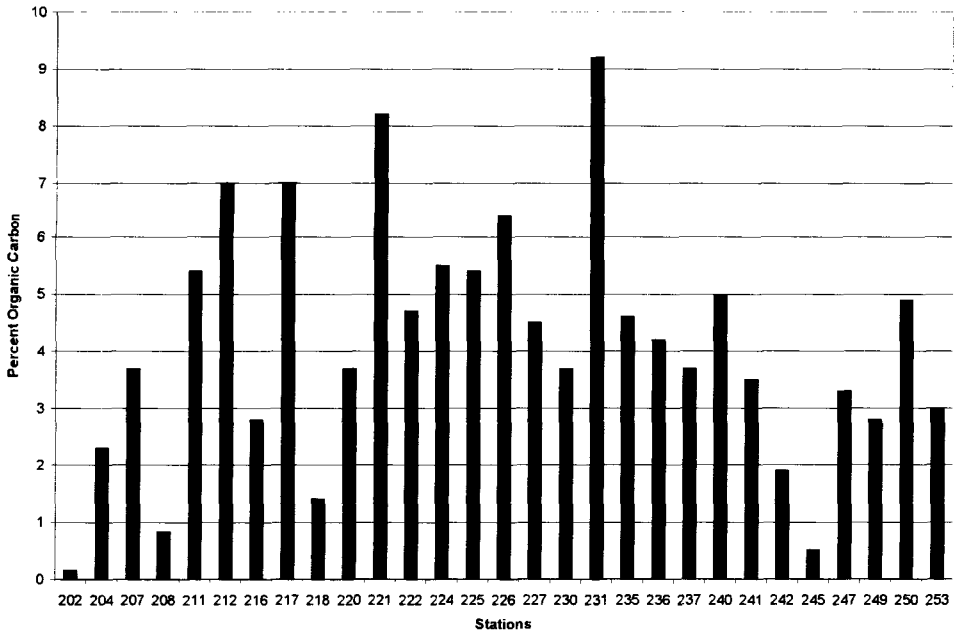
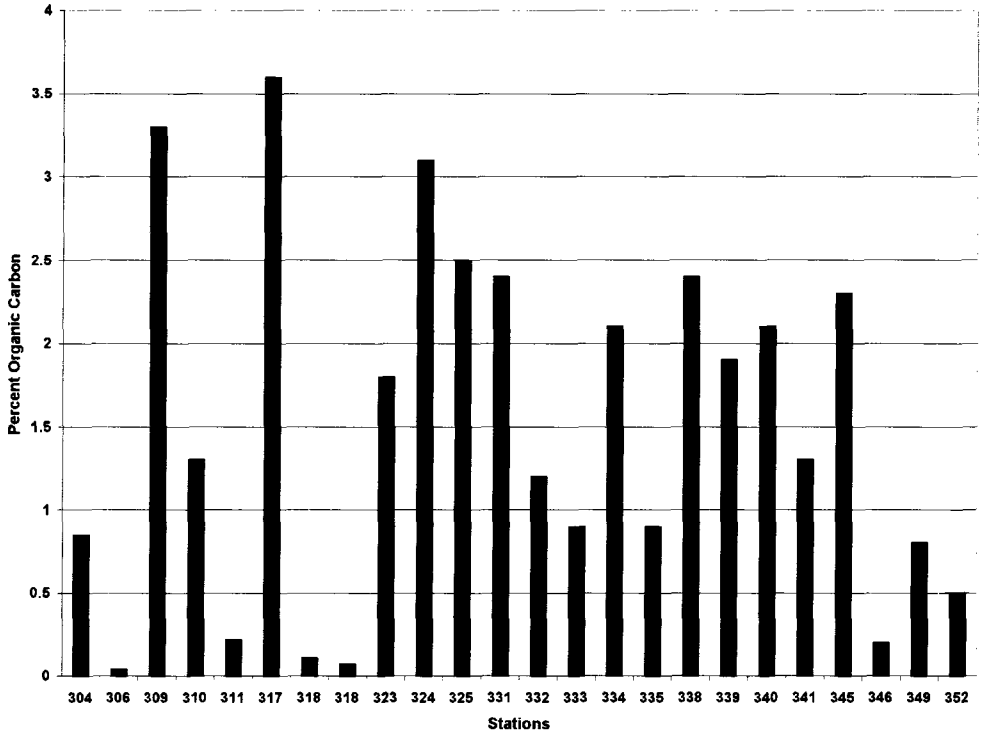


Figure 5. Total Organic Carbon Concentration for Outer Harbor Stations.



3.3 Contaminant Chemistry

3.3.1 PCBs

Figures 6 and 7 summarize the data obtained from the 1999 field collection effort. Only the 18 NOAA congeners have been measured in the program and these figures summarize the total of the 18 congeners for consistency with the previous two LTM reports. Readers are advised that the summations depicted in these figures and in Appendix 5 are not equivalent to total arochlor or homologue PCB's.

As depicted in both figures, total PCB concentrations (as the sum of the 18 NOAA congeners) in the Upper, Lower, and Outer Harbor areas differ dramatically. Concentrations at one-third of the stations in the Upper Harbor were greater than 100 ug/g. Concentrations at Upper Harbor stations are one order of magnitude higher than those encountered at stations in the Lower Harbor, and two orders of magnitude higher than those at stations in the Outer Harbor. In the Lower Harbor sediments, the sum of these 18 NOAA congeners were within the 2–20 ug/g concentration range, and those at the majority of stations in the Outer Harbor were less than 1 ug/g. Appendix 5 includes the details of the total PCBs and the individual 18 NOAA congeners found in the NBH 1999 samples.

3.3.2 Metals

Of the metal parameters measured in the program, cadmium (Figure 8), copper (Figures 9 and 10), and lead were the most elevated above background levels (data are presented in Appendix 6). Sediment-bound cadmium concentrations ranged from 5 to 20 ug/g in the Upper Harbor, 1–5 ug/g at stations in the Lower Harbor, and 1 ug/g or less in the Outer Harbor as summarized in Figure 8. Copper concentrations were relatively high—in the range of 100 to 1,000 ug/g—in both the Upper and Lower Harbor areas (Figures 9 and 10). The highest copper concentration measured in the program was at Station 207 (5,060 ug/g) in the Lower Harbor. Copper at this single station was higher by a factor of 3–4 than at any other station. Concentrations at stations in the Outer Harbor generally ranged from 2–60 ug/g, and are probably not much different from background concentrations as estimated from global mean sediment values (Bowen, 1979). Sedimentary lead concentrations were typically 200–500 ug/g in the Upper Harbor, 100–300 ug/g in the Lower Harbor, and with few exceptions, less than 30 ug/g in the Outer Harbor (Figure 11).

3.3.3 Acid Volatile Sulfides

Detailed results of this analysis are in Appendix 7. Metal-binding sulfide concentrations diminished from Upper and Lower Harbor stations to those in the Outer Harbor. However, simultaneously extracted metals were not measured as part of this project; therefore metal bioavailability assessments cannot be made.

Figure 6. Total PCB's as the Sum of NOAA 18 Congeners at New Bedford's Upper, Lower, and Outer Harbors. 0-4 cm Sediment Surface.

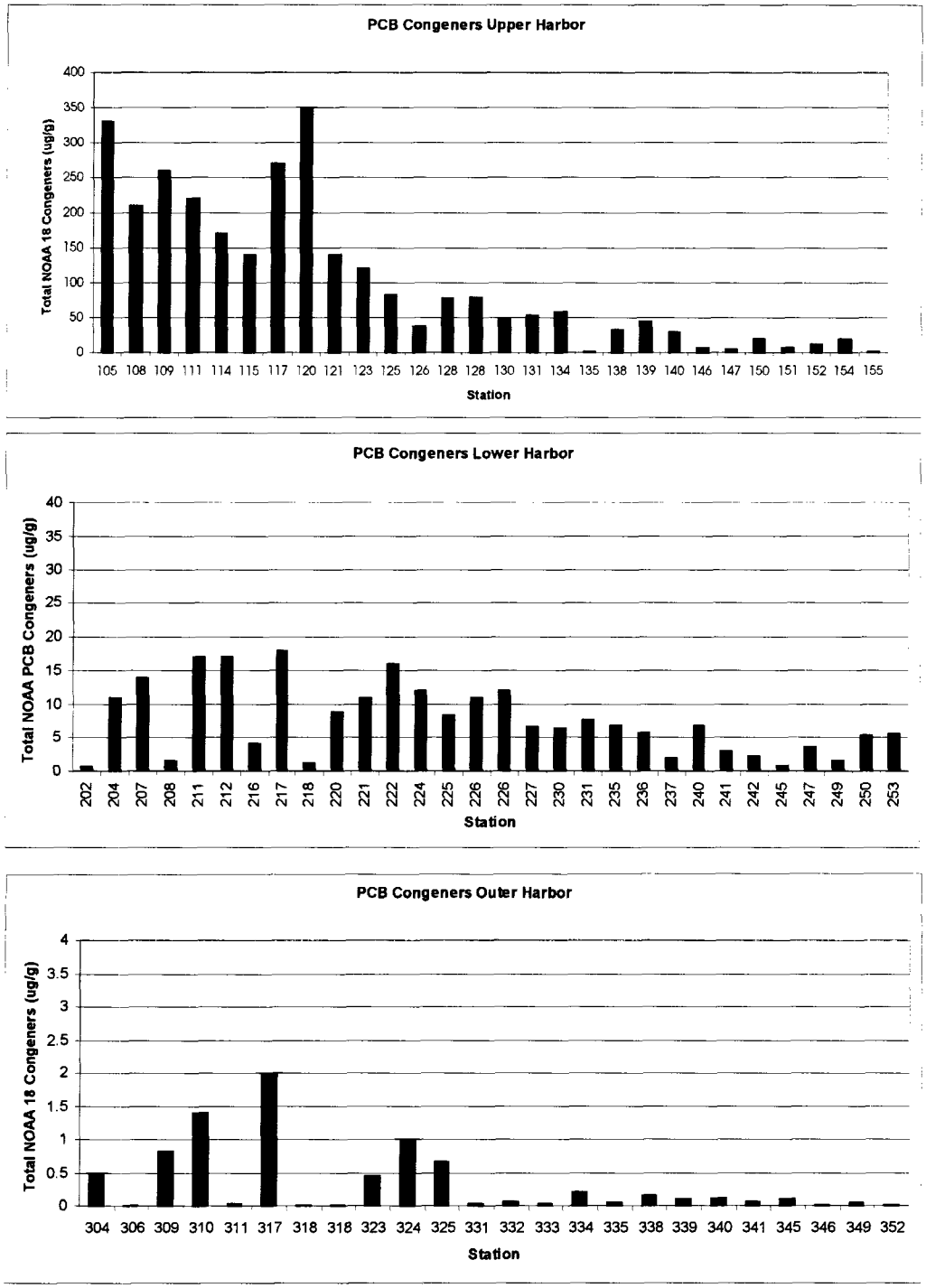


Figure 7. Map Showing Concentrations of PCBs in New Bedford Harbor in 1999.

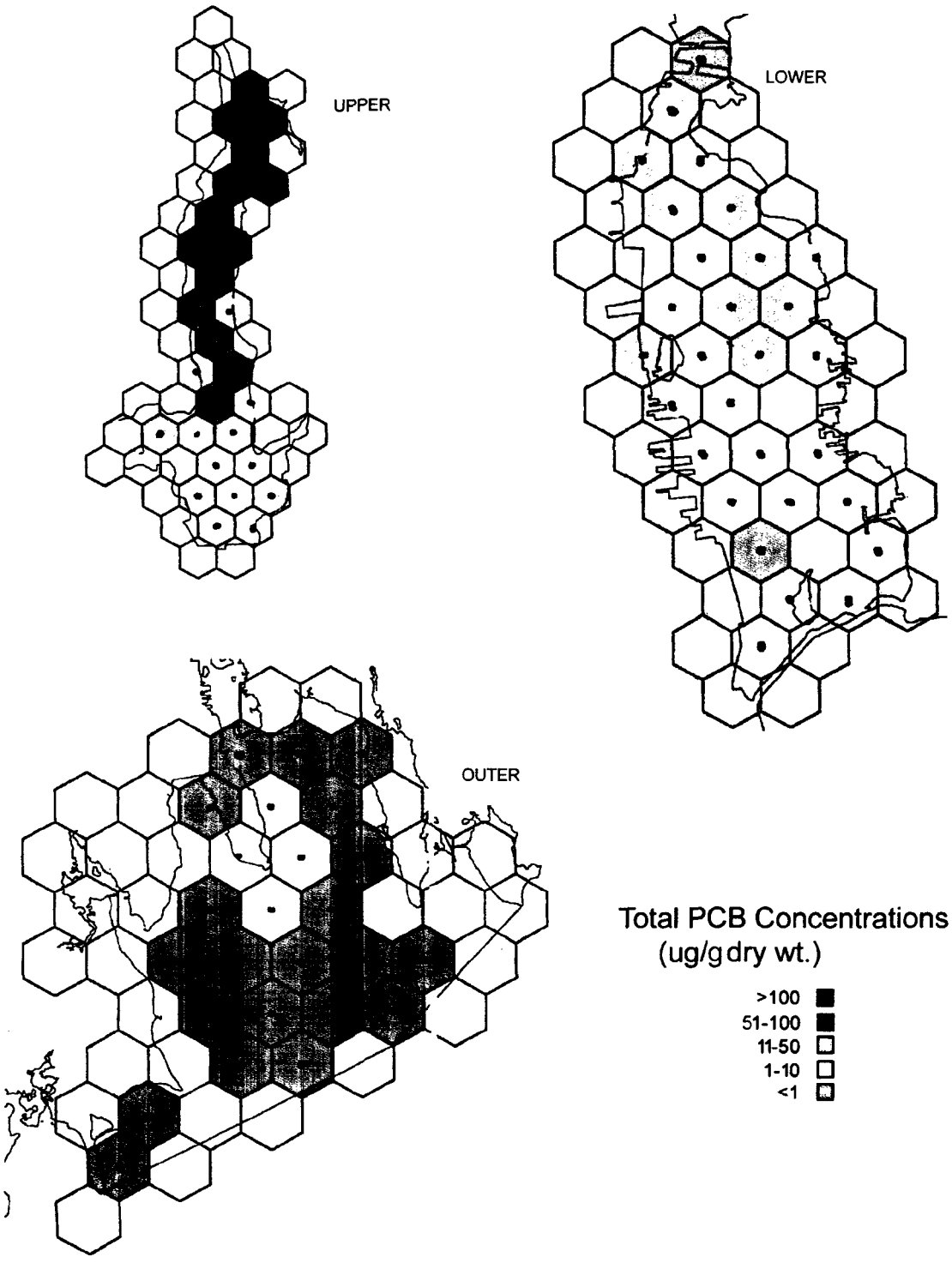


Figure 8. Cadmium Concentrations at New Bedford's Upper, Lower, and Outer Harbors. 0-4 cm Sediment Surface.

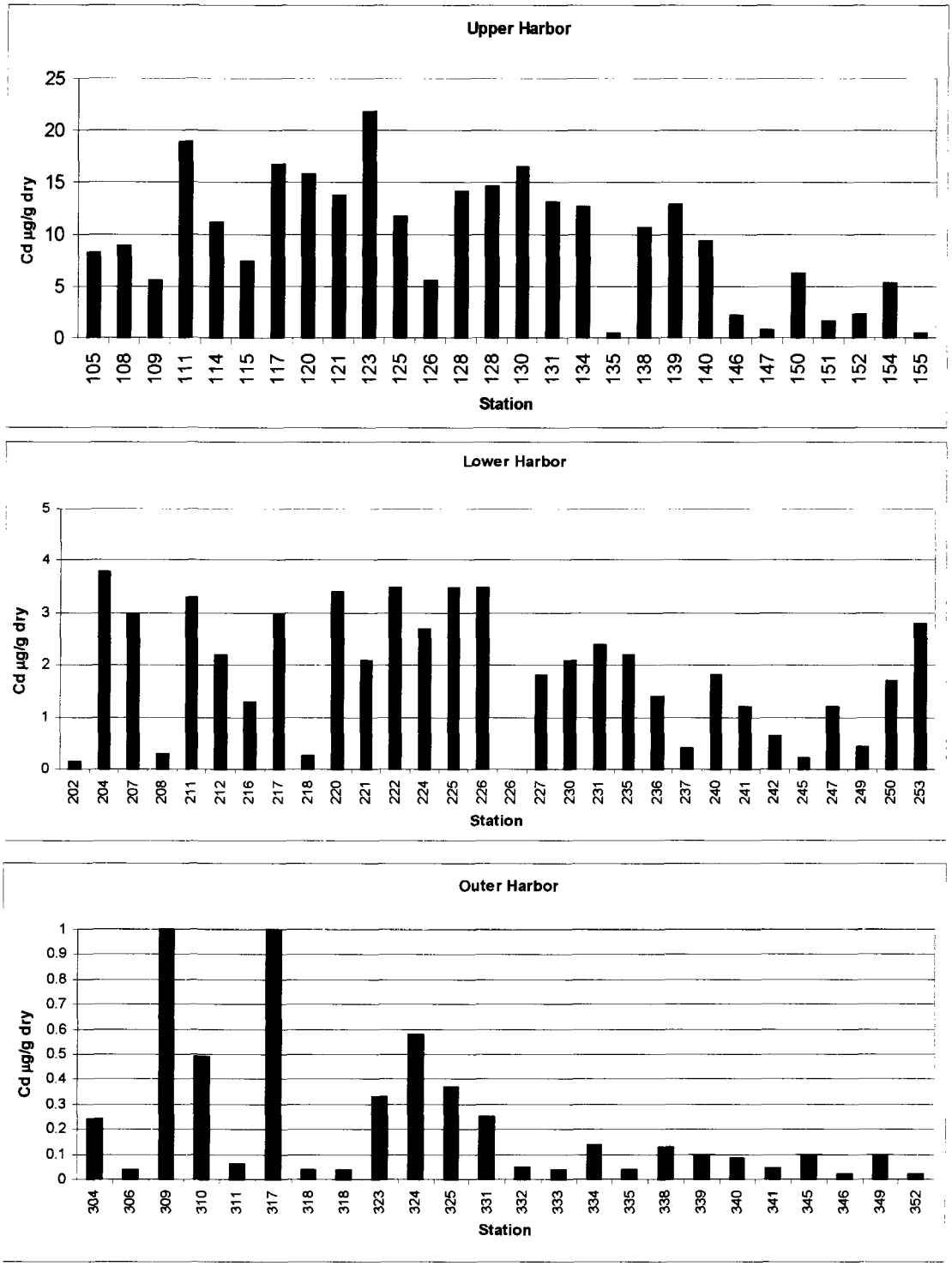


Figure 9. Copper Concentrations at New Bedford's Upper, Lower, and Outer Harbors. 0-4 cm Sediment Surface.

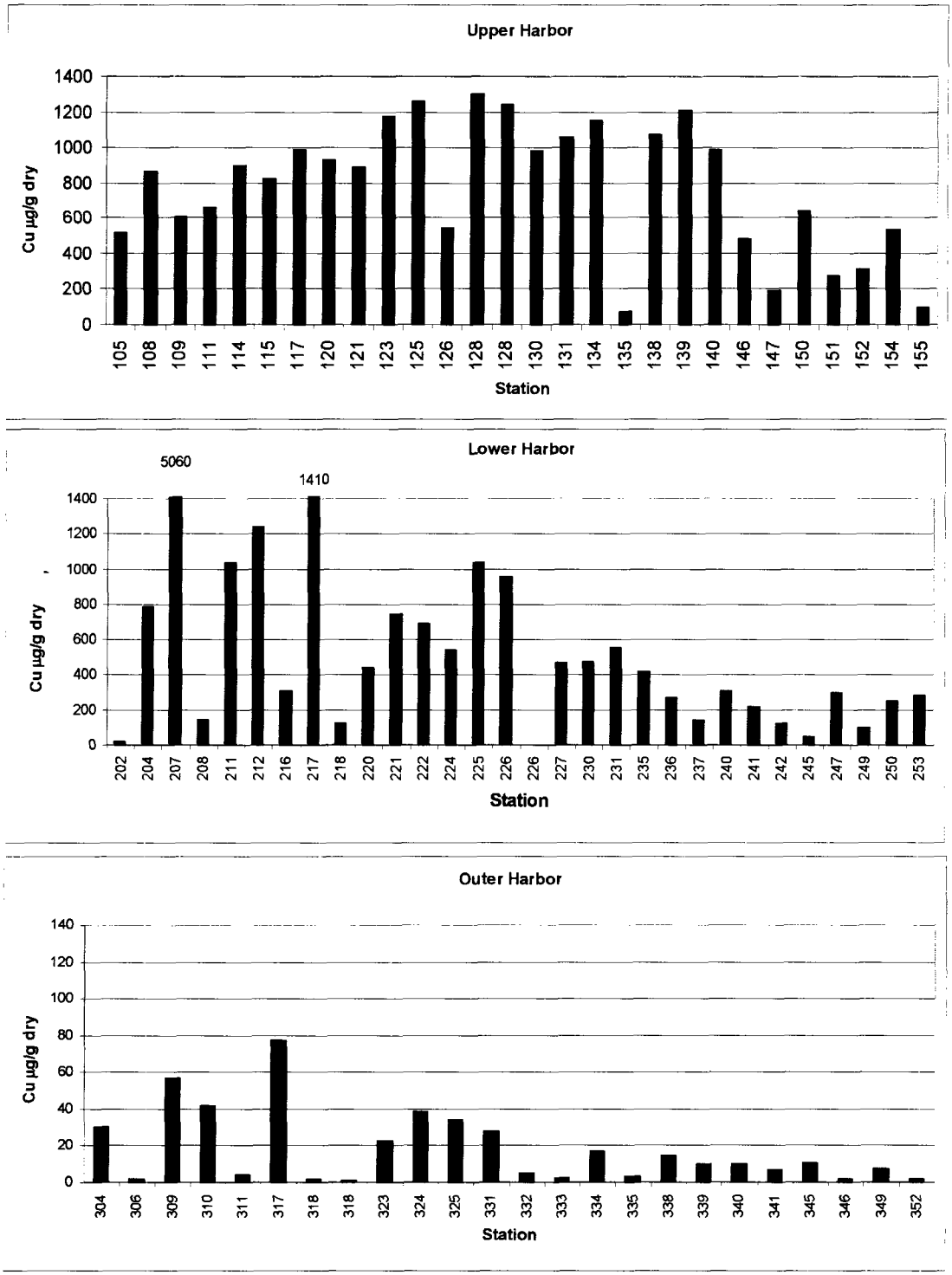


Figure 10. Map Showing Concentrations of Copper in New Bedford Harbor Sediments in 1999.

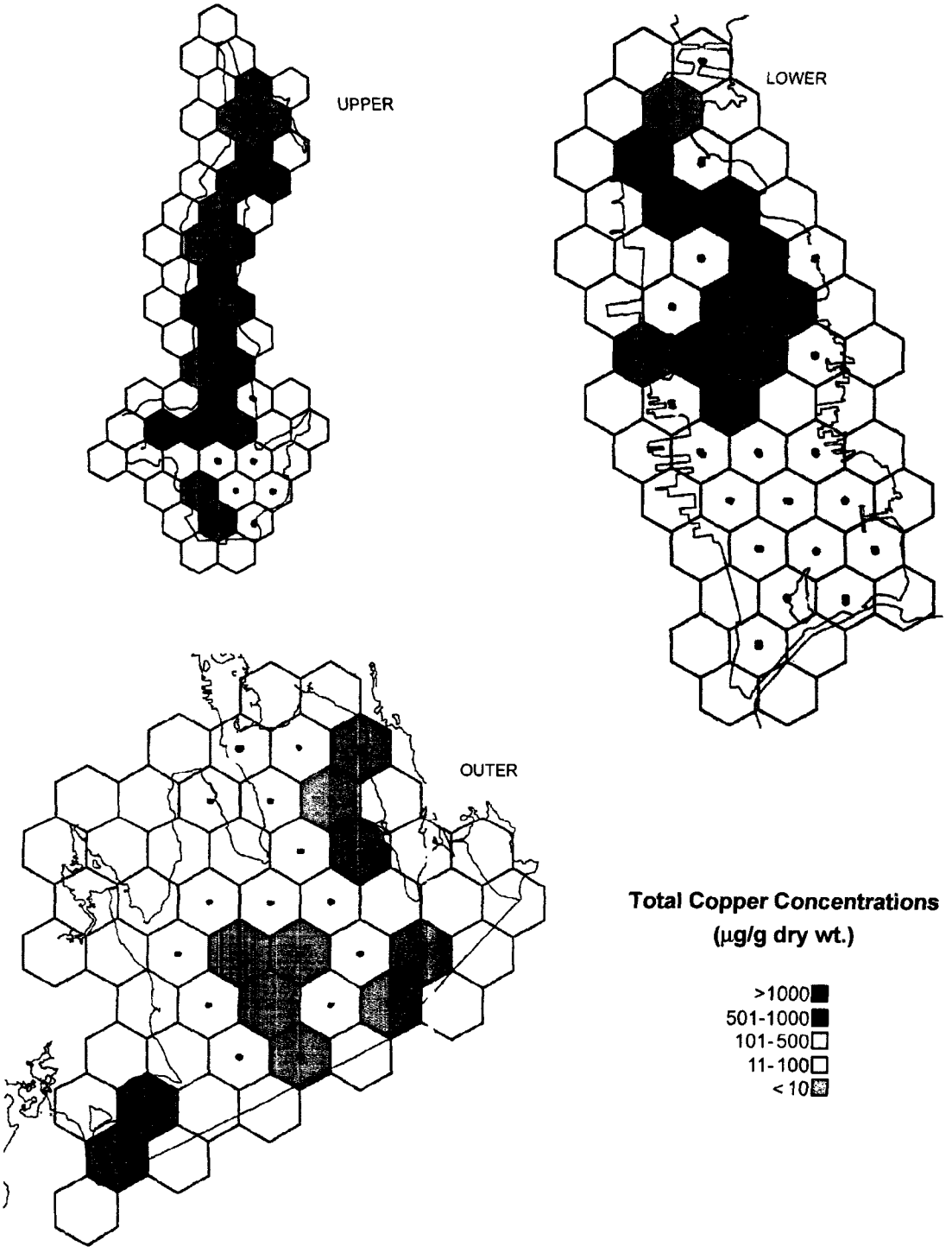
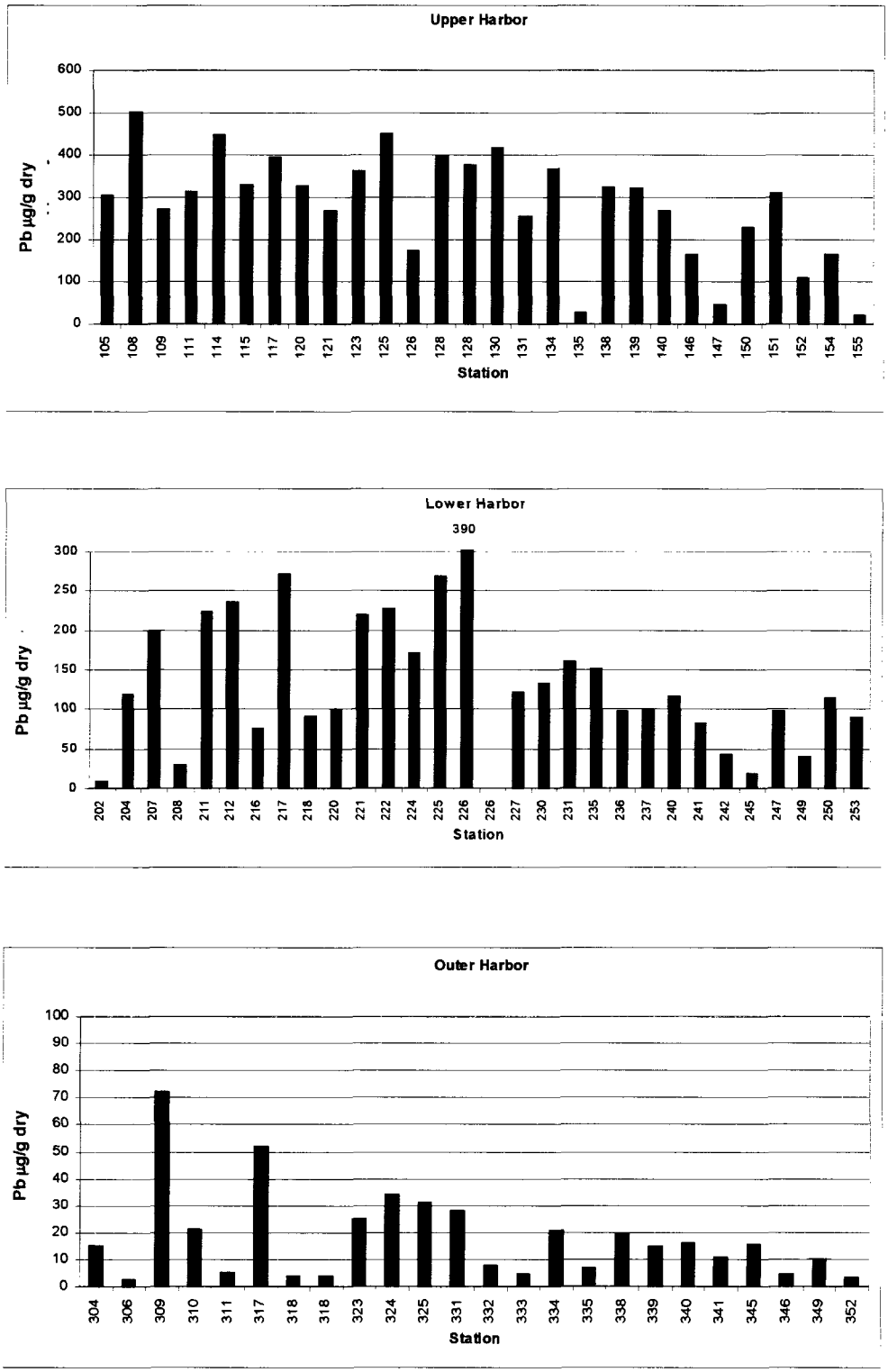


Figure 11. Lead Concentrations at New Bedford's Upper, Lower, and Outer Harbors. 0-4 cm Sediment Surface.



3.3.4 Sediment Toxicity

The amphipod 10-day survival responses for the entire NBH baseline evaluation are summarized in Appendix 8. Survival of organisms exposed to the NBH test sediment samples ranged from 0 to 90%. When normalized to the CLIS reference sample, amphipod survival was statistically significantly lower for 68 of the 79 sediments tested. The results showed strong spatial patterns; therefore, the discussion of the results has been organized according to NBH Segments 1 (Upper Harbor), 2 (Lower Harbor), and 3 (Outer Harbor).

3.3.5 Segment 1 (Upper Harbor)

Amphipod survival was assessed using 10-day whole sediment toxicity tests for 27 test sediments (Stations 105 to 155) located in NBH Segment 1 (Upper Harbor). On the whole, these sediments were extremely toxic, with 23 of the 27 sediments tested resulting in complete mortality (i.e., 0% survival). Survival in all 27 sediment tests was statistically significantly lower than in the corresponding CLIS control sediments. For the four test sediments without complete mortality, test organism survival ranged from a high of 25% (Station 135) to 1% (Station 155). Due to the widespread mortality, it is hard to distinguish spatial patterns of toxicity among the stations in the Upper Harbor. However, it was noted that all the sediments that had survival of some exposed organisms (i.e., <100% mortality) (Stations 135, 147, 152, 155) were all located along the eastern margin of Segment 1 near the southern (seaward) end.

3.3.6 Segment 2 (Lower Harbor)

Twenty-nine stations were tested in NBH Segment 2 (Lower Harbor). Mean amphipod survival for test sediments was very variable in this segment, ranging from 0 to 78%. Amphipod survival in all 29 sediment tests was statistically significantly lower than in the CLIS control sediments. Ten of the test sediments had organism survival below 25%, and, of these, three sediments (Stations 204, 207, 230) resulted in 100% mortality. Ten sediments had organism survival between 25 and 50%, seven (duplicates from Station 226 were averaged) were from 50 to 60%, and only two sediments had greater than 60% survival (Figure 12). Examination of the spatial pattern of toxicity results indicates that the most toxic sediments were located in the northern half of this segment and toxicity decreases southward. Some exceptions to this pattern were Stations 202, 222, 226, and 231, which were less toxic than would be expected based on their location. The reasons for this decreased toxicity are not known, but scour/erosional effects or distance offshore may be involved. For example, Station 202 is located at the constricting channel between the Upper and Lower Harbors in an area likely to be subject to high-velocity riverine and intertidal flows, and the sediment may be less depositional that at other locations. Alternatively, Stations 222, 226, and 231 are more centrally located, away from docks, wharves, and localized inputs. Additional information regarding the chemistry of the sediments should be considered to explain these differences.

3.3.7 Segment 3 (Outer Harbor)

Twenty-three stations were tested in NBH Segment 3 (Outer Harbor). Mean survival of amphipods exposed to test sediments from this segment was clearly the highest of the three harbor areas, with survival ranging from 24 to 90%. The majority of the sediments exhibited amphipod survival greater that 80% (Figure 12). Of the 23 sediment tests, survival in 12 was statistically significantly lower than in the CLIS control sediments. None of the test sediments exhibited 100% amphipod mortality. One of the test sediments had organism survival below 25% (Station 304), one was 25 to 50% (Station 310), and nine were between 50 and 80%. The spatial pattern of toxicity shows a gradient of decreasing toxicity with distance from the mouth of New Bedford Harbor (Figure 12). The four samples that demonstrated the most toxicity are among the five sediment samples at the northern end of Segment 3 (Stations 304, 306, 310, 311). Interestingly, the fifth sediment (Station 309) in the northern end had the highest organism survival (90%) of any New Bedford Harbor sediment tested. Starting with the line formed by sediment Stations 317 to 318 (see Figure 1), most of the sediments do not statistically differ from the CLIS control sediments, and those that are significantly different show minimal toxicity (e.g., 75–79% survival). Slight exceptions to this statement include Station 318 (65% survival) and Station 352 (66% survival). Overall, the results of the toxicity tests on sediments from Segment 3 indicate that the factors likely responsible for the toxicity seen in the Upper and Lower Harbors rapidly diminish with distance from these sources.

3.4 Benthic Fauna

The database generated for this project contained a number of taxa that are not considered in the following discussion. A few taxa, including epifaunal, clinging, or boring organisms such as *Crepidula*, *Mytilus*, *Crassostrea*, certain polydorid polychaetes, and caprellid amphipods, are not considered true constituents of the infaunal community, and are therefore excluded from any characterization of the community. These taxa are marked with an asterisk in the species list presented in Appendix 9. In addition, when juvenile or damaged specimens could not be identified to species, the category "spp." was used. If no species were identified in the genus to which these specimens belong, then the taxon is included in discussions of both density and diversity and is included in the species list (Appendix 9). If species were identified (and especially if more than one species was identified) in the genus, then the taxon was considered as contributing to the total density of infaunal organisms, but was not included in discussions of species richness or diversity nor in the species list (Appendix 9). Oligochaetes were not identified to species, but are an important component of the fauna and are therefore included in both density and diversity measurements. Appendix 10 contains the benthic data developed for NBH samples taken in 1999.

Figure 12. Map Showing Percent Survival of *Ampelisca abdita* in Toxicity Tests of New Bedford Harbor Sediments in 1999.

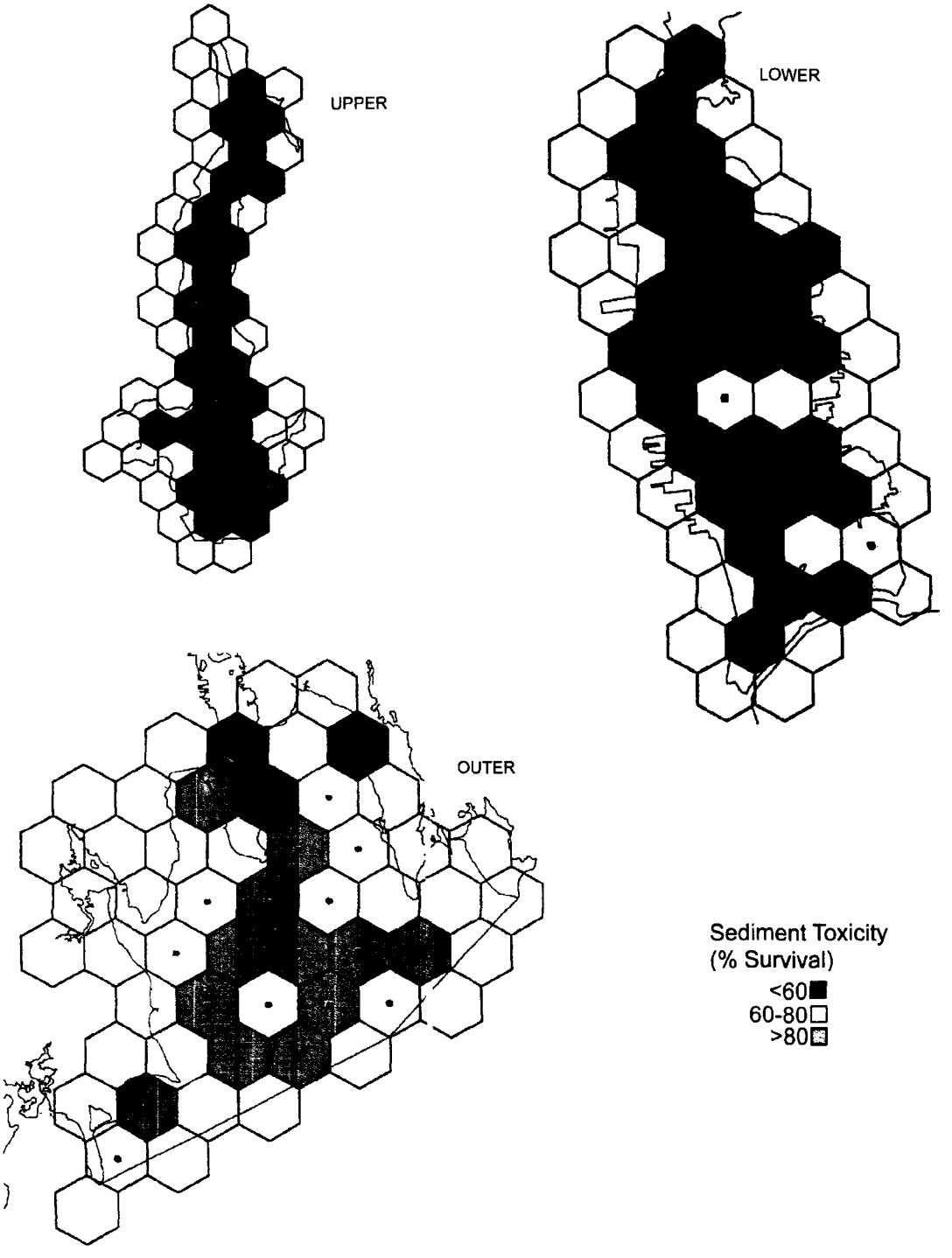


Table 3 shows the number of valid taxa and total density in each of the three areas sampled. Overall, the Lower Harbor had only 70% of the density but twice as many species as the Upper Harbor, and the Outer Harbor had approximately half the density but twice as many species as the Lower Harbor (Figure 13).

Table 3. Number of Species and Total Density in the Three Areas of New Bedford Harbor.

	Segment 1 Upper Harbor	Segment 2 Lower Harbor	Segment 3 Outer Harbor
Number of species	48	105	213
Total density	75,201	53,131	27,092

3.4.1 Segment 1 (Upper Harbor)

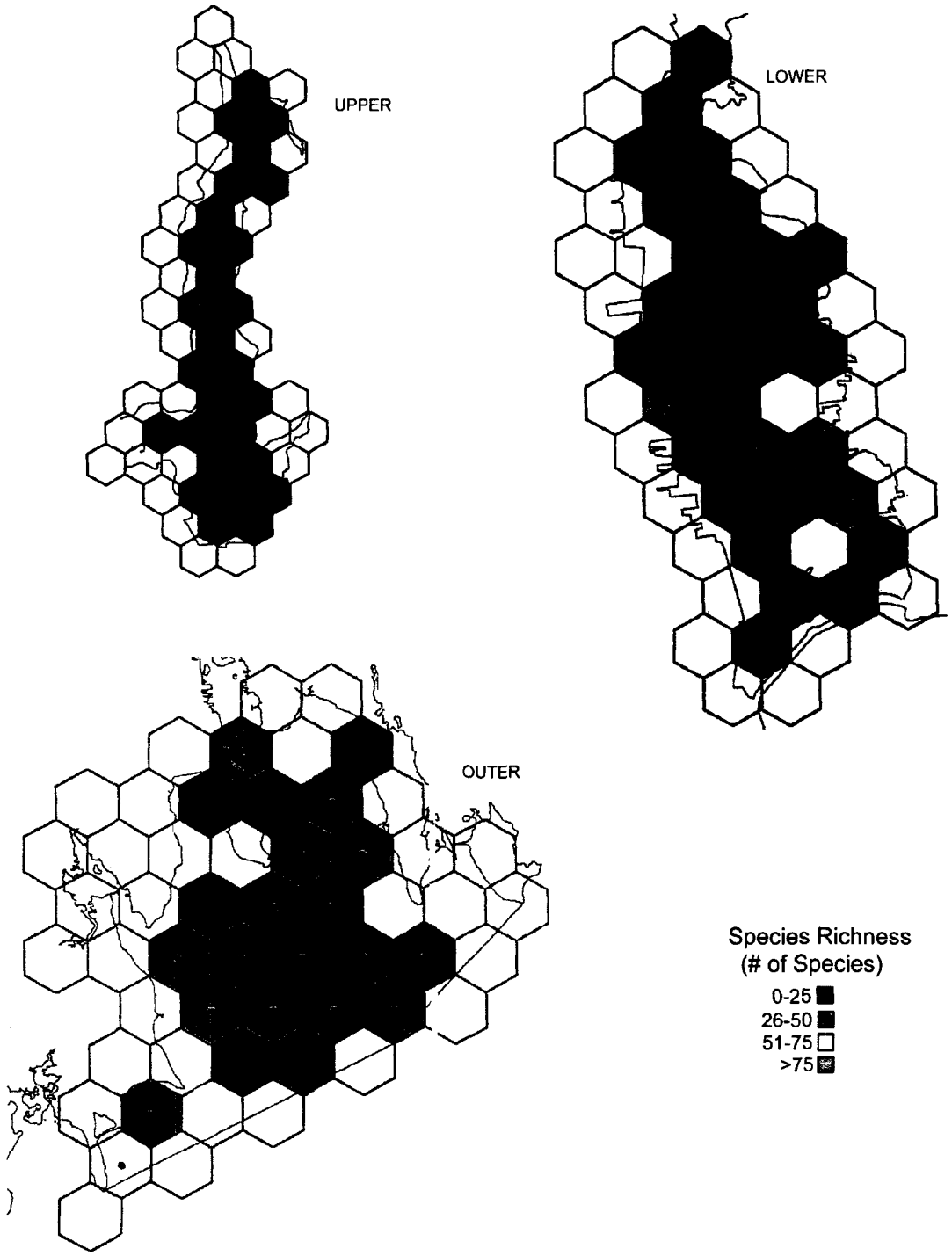
Stations in Segment 1 were characterized by low species diversity (as measured by number of taxa) and high densities, particularly of the dominant organisms. Table 4 shows the top dominant species and their total density in all Segment 1 replicates combined. Three bivalves (B), four polychaetes (P), two gastropods (G), and oligochaetes constitute the top dominants.

Table 4. Dominant Species in NBH Segment 1 (Upper Harbor).

Species	Total Density	Cum. Percent
1. *Gemma gemma* (B)	34,725	46.2
2. *Streblospio benedicti* (P)	17,670	69.7
3. *Mulinia lateralis* (B)	7,479	79.6
4. *Hydrobia truncata* (G)	6,624	88.4
5. Oligochaeta	3,003	92.4
6. *Eteone heteropoda* (P)	1,974	95.0
7. *Tharyx acutus* (P)	833	96.1
8. *Mercenaria mercenaria* (B)	444	96.7
9. *Ilylannasa obsoleta* (G)	382	97.2
10. *Polydora cornuta* (P)	334	97.6

The bivalve *Gemma gemma* accounted for nearly half of all organisms collected at Segment 1 stations and was most abundant at Stations 117, 120, and 121. Another bivalve, *Mulinia lateralis*, replaced *G. gemma* at the outer stations, especially Stations 123–140. The polychaete *Streblospio benedicti* occurred in every replicate, in abundances ranging from a low of 28 individuals at Station 117/3 to a high of 1496 at Station 130/1. The gastropod *Hydrobia truncata*

Figure 13. Map Showing Total Number of Species Identified from New Bedford Harbor Sediments as Part of 1999 Survey.



had a similarly patchy distribution, occurring in densities ranging from less than 10 (e.g., Stations 108, 114, 126) to 100s (e.g., Stations 105, 115) to 1000s (e.g., Station 109, 111). Oligochaetes were found in every replicate except 115/3 and both replicates from Station 152. *Eteone heteropoda*, a predatory polychaete, was found in low numbers in every replicate, except replicate 152/1 (where it did not occur.)

3.4.2 Segment 2 (Lower Harbor)

Stations in Segment 2 were characterized by intermediate species diversity (as measured by number of taxa) and intermediate densities. Table 5 shows the top dominant species and their total density in all Segment 2 replicates combined. Three bivalves (B), six polychaetes (P), and oligochaetes constitute the top dominants.

Table 5. Dominant Species in NBH Segment 2 (Lower Harbor).

Species	Total Density	Cum. Percent
1. *Mulinia lateralis* (B)	21,374	40.2
2. *Streblospio benedicti* (P)	7,932	55.1
3. *Tharyx acutus* (P)	4,999	64.5
4. *Mercenaria mercenaria* (B)	3,823	71.7
5. *Mediomastus ambiseta* (P)	3,097	81.8
6. Oligochaeta	2,278	84.7
7. *Pectinaria gouldii* (P)	1,544	86.5
8. *Leitoscoloplos robustus* (P)	983	88.1
9. *Macoma tenta* (B)	854	89.3
10. *Polydora cornuta* (P)	630	90.3

The polychaete *S. benedicti* was the second most dominant organism at Segment 2 stations as it was at Segment 1 stations, but with half the number of individuals. Another polychaete, *Polydora cornuta*, ranked tenth in both segments, but had twice the number of individuals in Segment 2 as in Segment 1. *M. lateralis* and *Tharyx acutus* occurred in substantially higher densities in Segment 2 than in Segment 1.

3.4.3 Segment 3 (Outer Harbor)

Stations in Segment 3 were characterized by the highest species diversity (as measured by number of taxa) and the lowest densities of all three Segments. Table 6 shows the top dominant species and their total density in all Segment 3 replicates combined. Three bivalves (B), four polychaetes (P), two gastropods (G), and oligochaetes constitute the top dominants.

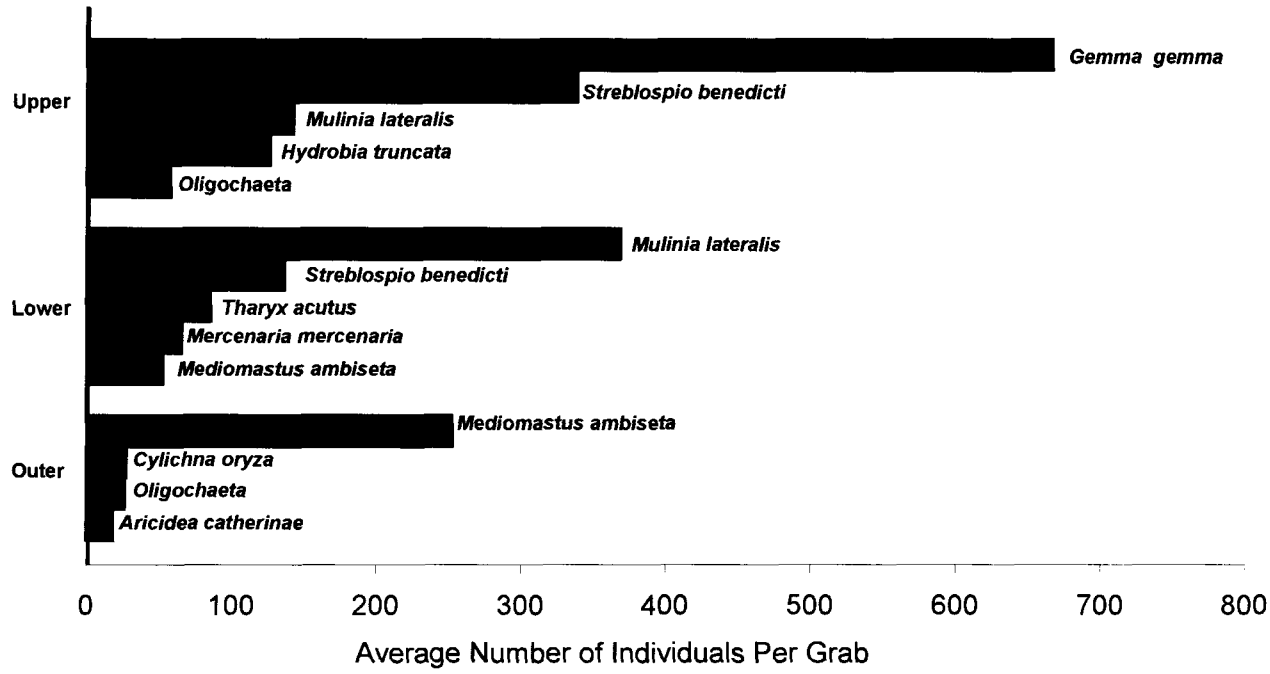
Table 6. Dominant Species in NBH Segment 3 (Outer Harbor).

Species	Total Density	Cum. Percent
1. *Mediomastus ambiseta* (P)	11,625	42.9
2. *Cylichna oryza* (G)	1,309	47.7
3. Oligochaeta	1,225	52.2
4. *Aricidea catherinae* (P)	886	55.5
5. *Nucula annulata* (B)	858	58.7
6. *Prionospio perkinsi* (P)	767	61.5
7. *Mulinia lateralis* (B)	719	64.1
8. *Polygordius* sp. A (P)	673	66.6
9. *Acteocena canaliculata* (G)	661	69.0
10. *Macoma tenta* (B)	641	71.4

Mediomastus ambiseta had a patchy distribution, sometimes occurring in numbers as high as 700–900 ind./m^2 in one replicate of a station (e.g., Stations 323, 332, 334, 341, 345) while only tens of individuals were present in the other replicate. Similarly, it was entirely absent from a few of the stations. Station 352, one of the outermost stations sampled, had an interesting fauna that included several uncommon polychaete species not routinely encountered in estuarine or coastal sampling programs.

A summary graphic shows the top 4 to 5 most abundant species in each of the Harbor segments (see Figure 14).

Figure 14. Dominant Benthic Invertebrate Species in New Bedford harbor in the 1999 Survey



4.0 DISCUSSION AND CONCLUSIONS

Although a detailed comparative analysis of the 1993, 1995, and 1999 results was beyond the scope of this 1999 summary report, we are able to provide comments on the main results. Based on the parameters measured in 1999, there is a definite trend or gradient from the upper reaches of New Bedford Harbor to the stations positioned at the outermost extent of the harbor. This gradient is characterized in Table 7, and can be seen to reflect the toxic conditions in the Upper Harbor, the mixed or intermediate conditions in the Lower Harbor, and the less toxic or cleanest conditions in the Outer Harbor. These results and trends appear to be very similar to those obtained in the previous baseline sampling.

Table 7. Comparison of Parameters Measured in NBH LTM III, Fall 1999.

Harbor Segment	Sed. Texture	% TOC	Total PCB	Metals	Toxicity	Total AVS	Faunal Densit	Species Richness	Even-ness
Upper	Finest	H	H	H	H	H	H	L	L
Lower	Mixed	I	I–L	I	H	I	I	I	I
Outer	Mixed, coarser	L	L	L	L	L	L	H	H
H = Highest, I = Intermediate, L = Lowest									

In 1993, total PCB concentrations (as the sum of the 18 NOAA congeners) ranged from a high of 431 µg/g in the Upper Harbor to a low of 0.02 µg/g in the Outer Harbor. In 1999, the highest value recorded was 350 µg/g, again in the Upper Harbor, and the lowest was 0.012 µg/g, in the Outer Harbor. Stations 108, 111, and 114 comprised the so-called "hot spot", from which heavily contaminated sediments having PCB concentrations in excess of 4000 µg/g were removed in 1994 and 1995. In 1999, those same three stations were among a group of eight adjacent stations in the Upper Harbor that had the highest PCB concentrations (Figure 7: Sta. 108: 210 µg/g; 111: 220 µg/g; 114: 170 µg/g).

Total organic carbon in the 1993 samples ranged from a high of 13% in the Upper Harbor to a low of 0.16% in the Outer Harbor; in 1999, the range was 10.1% to 0.03%, also in the same harbor areas. Thus, the highest and lowest values of these parameters were slightly lower in 1999 than in 1993, but the ranges and geographic trends were similar.

These data have not been subjected to statistical tests, but the copper concentrations encountered appear to have increased in some parts of New Bedford Harbor since 1993. The upper and lower ranges for the Upper, Lower, and Outer Harbors for 1993 and 1999 results together with averages for combined stations within each segment for both years are shown in Table 8. This apparent increase of

Cu is most pronounced in the Lower Harbor and may be the result of shoreline commercial and industrial land use and associated marine activities.

Table 8. Comparison of Copper Concentration (µg/g dry wt) Recorded from New Bedford Harbor in 1993 and 1999.

Harbor Segment/year	Highest Cu Concentration	Lowest Cu Concentration	Average Cu Concentrations
Upper-1993	1227	25	611.7
Upper-1999	1270	74	759.4
Lower-1993	2054	27	454.2
Lower-1999	5060	17	675.7
Outer-1993	77.2	1.3	20.2
Outer-1999	77.1	1.4	32.2

Stations 202, 222, 226, and 231 were less toxic than would be expected based on their location. The reasons for this decreased toxicity are not known, especially since there is no similarity in other parameters measured at these stations. Two of these stations (Sta. 202 and 222 had primarily sand and gravel sediments; Station 202 also had low TOC (0.16%) and low total PCBs (0.78 µg/g), but Station 222 had somewhat higher TOC (4.7%) and much higher PCBs (16 µg/g). The other two stations had primarily fine sediments with high silt+clay (71.2 and 66.6% for Stations 226 and 231, respectively), with higher TOC levels (6.4 and 9.2%, respectively) but intermediate levels of total PCBs (11 and 7.7 µg/g, respectively).

The species composition and dominance of the benthic fauna in samples collected in 1999 was very similar to that reported for the baseline samples taken in 1993 (Nelson et al., 1996) and 1995 (EPA, unpublished data). In 1993 and 1999, the Upper Harbor was dominated by three species: the polychaete *Streblospio benedicti* and the bivalves *Mulinia lateralis* and *Gemma gemma*, which together accounted for at least 75% of the total infaunal abundance in 1993 and 1999. In 1995, *S. benedicti, Capitella capitata, G. gemma*, and *Hydrobia totteni* accounted for approximately 75% of the total fauna. Because the 1995 samples were taken shortly after dredging of the "hot spot" sediments, it is likely that the occurrence of *C. capitata* was due to its recruitment into newly disturbed sediments. Like *S. benedicti*, *C. capitata* is an opportunistic species, but its dominance tends to be limited to an early phase of succession. The community dominants in 1993 and 1999, therefore, represent a typical late summer assemblage in an upper estuarine habitat.

The Lower Harbor stations were overwhelmingly dominated by *Mulinia lateralis* in 1993 and 1999; in 1999 this species accounted for 40.2% of the total density. Other numerical dominants, including *S. benedicti*, *Mediomastus ambiseta*, *Mercenaria mercenaria*, and oligochaetes were the same in both years. In 1995, no one species was an overwhelming numerical dominant. Instead an assemblage of *S. benedicti, Tharyx acutus, M. lateralis*, oligochaetes, *Leitoscoloplos* sp., and *Mediomastus ambiseta*

characterized the segment. In 1999, the polychaete *Tharyx acutus* was also dominant at Lower Harbor stations.

The Outer Harbor stations were much more diverse than the other areas in all three samplings, but in 1999 the polychaete *M. ambiseta* accounted for 42.9% of the fauna, whereas in 1993 and 1995, it was not as numerically important.

REFERENCES

Bergen, B.J., K.A. Rahn, and W.G. Nelson. 1998. Remediation at a marine superfund site: Surficial sediment, PCB congener concentration, composition, and redistribution. Environmental Science and Technology 32(22): 3496.

Boothman, W.S. and A. Helmstetter. 1992. Determination of acid-volatile sulfide and simultaneously-extracted metals in sediments using sulfide-specific electrode detection. USEPA Environmental Research Laboratory, Narragansett, RI, and Science Applications International Corp., Narragansett, RI.

Bowen, H.J.M. 1979. Environmental Chemistry of the Elements. Academic Press, Inc. (London) LTD 317 p.

Di Toro, D. M., Mahony, J. D., Hansen, D. J., Scott, K. J., Carlson, A. R., Ankley, G. T. 1992. Acid volatile sulfide predicts the acute toxicity of cadmium and nickel in sediments. Environmental Science and Technology 26: 96.

ENSR. 1999. Quality Assurance Project Plan for New Bedford Harbor Long-Term Monitoring III.

EPA. 1991 EMAP Near-Coastal Laboratory Procedures Macrobenthic Community Assessment.. Prepared by Versar, Inc.

EPA. 1986. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846). Third Edition, including Final Update III, June 1997.

EPA. 1990. Standard Operating Procedure for Conducting Acute Toxicity Testing using *Ampelisca abdita*. EPA Environmental Research Laboratory–Narragansett. 15 pp.

EPA. 1993. Environmental Monitoring and Assessment Program (EMAP): Laboratory Methods Manual-Estuaries, Volume 1: Biological and Physical Analyses. Section 7. 12 pp.

EPA. 1994. Methods for Assessing the Toxicity of Sediment-associated Contaminants with Estuarine and Marine Amphipods. EPA /600/R-94-025, May 1994, 140 pp.

EPA/ACOE. 1991. Evaluation of Dredging Material for Ocean Disposal. (Testing Manual). EPA-503/8-91.

FWEC (Foster Wheeler Environmental Corporation). 2000. Draft Technical Memorandum: Sediment Sample Analytical Method Comparison. Prepared for U.S. ACE under contract No. DACW33-94-D-0002.

Head, K.H. 1992. Manual of Soil Laboratory Testing. Vol. 1. Soil Classification and Compact Testing. Second Edition, John Wiley and Sons, Inc., New York, NY.

Nelson, W.G., B.J. Bergen, S.J. Benyi, G. Morrison, R.A. Voyer, C.J. Strobel, S. Rego, G. Thursby and C.E. Pesch. 1996. New Bedford Harbor Long-Term Monitoring Assessment Report: Baseline Sampling. U.S. Environmental Protection Agency, National Health and Environmental Effects Research Laboratory, Atlantic Ecology Division, Narragansett, RI. EPA/600/R-966/097.

NOAA. 1993. Comprehensive descriptions of complementary measurements. Sampling and Analytical Methods of the National Status and Trends Program, National Benthic Surveillance and Mussel Watch Projects, 1984-1992 (Volume II). NOAA Technical Memorandum NOS/ORCA/CMBAD 71. pp II.15 to II.22.

APPENDIX 1

STATION DATA FOR THE 1999 NEW BEDFORD HARBOR LONG-TERM MONITORING III SURVEY

Appendix 1. Station Data for the 1999 New Bedford Harbor Long-Term Monitoring III Field Program.

Event No	Visit No	Station No	Event Date	Begin Time	Event Lat	Event Lat-Min	Event Long	Event Long-Min	HiTide Time	Depth (m)
5001	1	105	05-Oct-99	14:22	41	40.488	70	54.908	05:13	0.9
5002	1	108	06-Oct-99	10:01	41	40.496	70	54.955	06:05	0.9
5003	1	109	06-Oct-99	08:47	41	40.438	70	54.865	06:05	0.9
5004	1	111	05-Oct-99	11:45	41	40.422	70	54.9	05:13	0.5
5005	1	114	01-Oct-99	13:07	41	40.355	70	54.971	13:33	2.4
5006	1	115	05-Oct-99	15:50	41	40.345	70	54.842	05:13	1.2
5007	1	117	29-Sep-99	09:49	41	40.255	70	55.039	11:33	1.8
5007	2	117	18-Nov-99	12:46	41	40.29	70	55.019	15:35	1.4
5008	1	120	18-Nov-99	11:14	41	40.13	70	55.08	15:35	1
5009	1	121	18-Nov-99	13:35	41	40.154	70	55.003	15:35	1.4
5010	1	123	29-Sep-99	10:19	41	40.016	70	55.034	11:33	2.5
5011	1	125	29-Sep-99	11:38	41	40.01	70	55.098	11:33	3
5012	1	126	29-Sep-99	12:43	41	40.01	70	54.987	11:33	1.5
5013	1	128	29-Sep-99	14:06	41	39.926	70	55.041	11:33	3
5014	1	130	01-Oct-99	14:57	41	39.848	70	55.086	13:33	1.8
5015	1	131	29-Sep-99	15:44	41	39.847	70	54.982	11:33	1.2
5016	1	134	01-Oct-99	16:10	41	39.756	70	55.032	13:33	2.3
5017	1	135	01-Oct-99	11:28	41	39.753	70	54.936	13:33	1.7
5018	1	138	05-Oct-99	08:35	41	39.68	70	55.219	05:13	0.8
5019	1	139	29-Sep-99	08:07	41	39.675	70	55.104	11:33	1.4
5020	1	140	01-Oct-99	10:18	41	39.685	70	54.977	13:31	3.3
5021	1	146	01-Oct-99	08:40	41	39.601	70	54.896	13:31	3.3
5022	1	147	28-Sep-99	12:35	41	39.594	70	54.91	10:41	1.7
5023	1	150	28-Sep-99	10:00	41	39.513	70	55.087	10:41	3.4
5024	1	151	28-Sep-99	14:01	41	39.502	70	54.98	10:41	1.5
5025	1	152	28-Sep-99	08:30	41	39.485	70	54.848	10:41	1.7
5026	1	154	28-Sep-99	16:01	41	39.415	70	55.05	10:41	3.4
5027	1	155	28-Sep-99	11:09	41	39.44	70	54.94	10:41	1.7
5027	2	155	18-Nov-99	14:48	41	39.419	70	54.94	15:35	2.3
5028	2	202	06-Oct-99	12:00	41	39.323	70	55.032	06:05	4.7
5028	1	202	06-Oct-99	12:00	41	39.323	70	55.032	06:05	4.7
5028	3	202	18-Nov-99	08:32	41	39.326	70	55.02	15:35	4.9
5029	1	204	22-Sep-99	15:30	41	39.158	70	55.145	06:13	8.2
5030	1	207	22-Sep-99	14:08	41	38.984	70	55.27	06:13	1.7
5031	1	208	23-Sep-99	08:15	41	38.981	70	55.022	06:58	1.3
5032	1	211	22-Sep-99	13:10	41	38.829	70	55.158	06:13	3
5033	1	212	24-Sep-99	08:50	41	38.826	70	54.906	07:41	3.3
5034	1	216	22-Sep-99	10:48	41	38.66	70	55.023	06:13	2.2
5035	1	217	23-Sep-99	10:21	41	38.662	70	54.781	06:58	3
5036	1	218	27-Oct-99	10:00	41	38.663	70	54.527	10:05	9.5
5037	1	220	22-Sep-99	09:24	41	38.507	70	55.141	06:13	11.1
5038	1	221	24-Sep-99	07:15	41	38.528	70	54.903	07:41	3
5039	1	222	23-Sep-99	12:10	41	38.501	70	54.641	06:58	3.1

Appendix 1. Station Data for the 1999 New Bedford Harbor Long-Term Monitoring III Field Program.

Event No.	Visit No.	Sta No.	Event Date	Begin Time	Event Lat	Event Lat-Min	Event Long	Event Long-Min	HiTide Time	Depth (m)
5040	1	224	22-Sep-99	08:10	41	38.338	70	55.269	06:13	10
5041	1	225	21-Sep-99	10:52	41	38.332	70	55.026	17:47	8.8
5042	1	226	21-Sep-99	14:00	41	38.336	70	54.809	17:47	3.5
5043	1	227	21-Sep-99	15:50	41	38.33	70	54.537	17:47	3
5044	1	230	21-Sep-99	09:20	41	38.185	70	55.16	17:47	7.2
5045	1	231	21-Sep-99	08:00	41	38.166	70	54.874	17:47	4.1
5046	1	235	20-Sep-99	14:55	41	38.011	70	55.035	16:58	8.8
5047	1	236	20-Sep-99	16:25	41	38.031	70	54.785	16:58	10.3
5048	1	237	24-Sep-99	10:22	41	38.006	70	54.541	07:41	6
5049	1	240	20-Sep-99	13:16	41	37.873	70	54.91	16:58	10
5050	1	241	20-Sep-99	11:08	41	37.854	70	54.656	16:58	10.2
5051	1	242	20-Sep-99	09:41	41	37.843	70	54.416	16:58	5.8
5052	1	245	19-Sep-99	14:15	41	37.67	70	54.78	16:04	3.4
5053	1	246	19-Sep-99	15:49	41	37.68	70	54.28	16:04	3.6
5054	1	247	19-Sep-99	15:49	41	37.68	70	54.28	16:04	3.6
5055	1	249	19-Sep-99	12:49	41	37.52	70	54.67	16:04	2.4
5056	1	250	19-Sep-99	10:03	41	37.51	70	54.42	16:04	8.8
5057	1	253	20-Sep-99	08:07	41	37.354	70	54.799	16:58	2.6
5058	1	304	14-Sep-99	16:26	41	37.159	70	54.534	23:57	3.1
5060	1	306	14-Sep-99	13:28	41	37.15	70	52.237	23:57	2.8
5061	1	309	07-Oct-99	17:24	41	36.432	70	55.1	06:53	5.2
5062	1	310	14-Sep-99	10:53	41	36.407	70	53.983	11:38	6.4
5063	1	311	14-Sep-99	12:43	41	36.4	70	52.848	11:38	5.5
5064	1	317	07-Oct-99	08:05	41	35.669	70	53.411	06:53	9.8
5065	1	318	10-Oct-99	07:49	41	35.664	70	52.283	09:01	6.6
5066	1	323	07-Oct-99	16:18	41	34.941	70	55.132	06:53	8.4
5067	1	324	07-Oct-99	10:12	41	34.926	70	53.979	06:53	9.9
5068	1	325	10-Oct-99	09:55	41	34.907	70	52.856	09:01	11.8
5071	1	331	15-Sep-99	15:55	41	34.198	70	55.707	12:24	7.3
5072	1	332	07-Oct-99	11:20	41	34.195	70	54.571	06:53	8.5
5073	1	333	08-Oct-99	15:20	41	34.191	70	53.425	07:38	6.2
5074	1	334	08-Oct-99	13:47	41	34.183	70	55.267	07:38	11.3
5075	1	335	08-Oct-99	12:20	41	34.195	70	51.137	07:38	8
5076	1	338	07-Oct-99	12:34	41	33.468	70	55.134	06:53	8.3
5077	1	339	07-Oct-99	15:10	41	33.445	70	53.98	06:53	12.2
5078	1	340	08-Oct-99	09:46	41	33.448	70	52.874	07:38	12
5079	1	341	08-Oct-99	11:08	41	33.439	70	51.729	07:38	11
5081	1	345	07-Oct-99	13:57	41	32.692	70	54.591	06:53	11.6
5082	1	346	08-Oct-99	07:55	41	32.696	70	53.469	07:38	11.9
5083	1	349	15-Sep-99	11:17	41	31.977	70	56.31	12:24	8.2
5085	1	352	15-Sep-99	09:35	41	31.233	70	56.882	12:24	6.4

APPENDIX 2

WATER QUALITY DATA FOR THE 1999 NEW BEDFORD LONG TERM MONITORING III SURVEY

Appendix. 2 Water Quality Data for the 1999 New Bedford Long Term Monitoring III Program

Station	CTD Date	CTD ID	CAST TIME	Depth (m)	Temp (C)	Salinity (ppt)	DO (mg/L)
105	10/5/99	5001200	16:11	0.6	17.9	31.3	8.4
108	10/6/99	5002200	16:07	0.6	18.3	31.6	10.1
109	10/6/99	5003200	16:16	0.2	18.0	31.0	8.4
111	10/5/99	5004200	16:22	0.9	17.9	32.1	8.6
114	10/1/99	5005200	14:15	1.3	20.0	33.4	8.5
115	10/5/99	5006200	16:28	0.4	18.2	30.8	7.3
117	9/29/99	5007200					
117	11/18/99	5007200	13:16	1.0	8.5	29.9	9.3
120	11/18/99	5008200	11:32	0.4	8.4	30.1	9.1
121	11/18/99	5009200	13:59	1.1	7.9	29.6	9.7
123	9/29/99	5010200	10:45	1.8	19.7	34.5	7.4
125	9/29/99	5011200	12:13	1.8	19.8	34.5	7.7
126	9/29/99	5012200	13:51	0.7	20.2	34.1	8.7
128	9/29/99	5013200	14:12	2.3	20.1	34.3	8.7
130	10/1/99	5014200	15:00	1.4	19.6	34.1	7.4
131	9/29/99	5015200	15:49	1.2	20.6	33.4	10.8
134	10/1/99	5016200	16:31	1.9	19.8	33.5	8.7
135	10/1/99	5017200	11:35	0.7	19.3	34.1	7.5
138	10/5/99	5018200	15:57	0.7	17.7	33.7	6.7
139	9/29/99	5019200	09:13	0.6	19.7	34.5	7.3
140	10/1/99	5020200	10:58	2.5	19.1	34.1	7.1
146	10/1/99	5021200	08:49	2.6	19.1	34.0	6.6
147	9/28/99	5022200	13:32	0.4	20.2	34.3	7.8
150	9/28/99	5023200	10:26	3.6	19.6	34.5	6.8
151	9/28/99	5024200	14:05	1.2	20.2	34.0	7.8
152	9/28/99	5025200	09:20	1.1	19.6	34.2	6.8
154	9/28/99	5026200	16:01	2.7	20.1	34.1	7.4
155	9/28/99	5027200	12:05	1.1	19.8	34.5	7.3
155	11/18/99	5027200	12:05	1.1	19.8	34.5	7.3
202	10/6/99	5028200	15:50	3.4	17.4	33.9	6.7

Appendix. 2 Water Quality Data for the 1999 New Bedford Long Term Monitoring III Program

Station	CTD Date	CTD ID	CAST TIME	Depth (m)	Temp (C)	Salinity (ppt)	DO (mg/L)
202	11/18/99	5028200					
204	9/22/99	5029200	15:30	7.9	20.7	36.5	5.3
207	9/22/99	5030200	14:11	1.2	20.7	35.1	6.2
208	9/23/99	5031200	09:29	1.1	19.6	35.9	6.3
211	9/22/99	5032200	13:10	2.3	20.7	35.9	5.8
212	9/24/99	5033200	08:55	2.5	19.7	36.2	6.6
216	9/22/99	5034200	10:51	1.6	20.6	35.7	5.9
217	9/23/99	5035200	10:35	2.7	19.9	36.3	6.7
218	10/27/99	5036200	07:45	0.3	7.1	31.8	9.4
220	9/22/99	5037200	09:24	9.1	20.7	36.5	5.1
221	9/24/99	5038200	08:10	2.3	17.1	36.1	6.0
222	9/23/99	5039200	12:45	2.7	20.1	36.2	7.1
224	9/22/99	5040200	08:49	9.1	20.7	36.5	4.7
225	9/21/99	5041200	10:52	9.3	20.6	36.7	4.3
226	9/21/99	5042200	15:40	2.9	20.9	36.1	7.1
227	9/21/99	5043200	15:50	2.2	21.2	35.8	8.3
230	9/21/99	5044200	09:20	5.3	20.6	36.5	4.2
231	9/21/99	5045200	08:01	5.9	20.6	36.6	5.3
235	9/20/99	5046200	14:58	7.6	20.6	36.7	5.2
236	9/20/99	5047200	16:30	8.7	20.6	36.6	5.7
237	9/24/99	5048200	11:28	5.4	19.7	36.6	6.8
240	9/20/99	5049200	13:31	8.6	20.4	36.6	5.7
241	9/20/99	5050200	11:14	8.0	20.6	36.8	5.2
242	9/20/99	5051200	09:45	4.7	20.4	36.6	6.0
245	9/19/99	5052200	15:15	2.0	20.6	35.8	6.6
247	9/19/99	5054200	16:26	2.4	20.8	36.1	6.7
249	9/19/99	5055200	13:39	1.2	20.6	35.6	6.9
250	9/19/99	5056200	10:04	9.2	20.3	36.9	5.6
253	9/20/99	5057200	08:20	1.7	20.1	36.3	5.6
304	9/14/99	5058200	11:53	2.4	16.2	35.6	6.7

Appendix. 2 Water Quality Data for the 1999 New Bedford Long Term Monitoring III Program

Station	CTD Date	CTD ID	CAST TIME	Depth (m)	Temp (C)	Salinity (ppt)	DO (mg/L)
306	9/14/99	5060200					
309	10/7/99	5061200	17:55	3.9	15.7	35.8	9.8
310	9/14/99	5062200	11:42	5.1	16.3	36.0	8.5
311	9/14/99	5063200					
317	10/7/99	5064200	08:05	8.5	17.1	35.9	7.7
318	10/10/99	5065200	07:49	5.5	16.0	35.9	8.0
323	10/7/99	5066200	16:38	7.4	16.9	36.0	8.3
324	10/7/99	5067200	10:32	8.6	16.7	35.9	7.8
325	10/10/99	5068200	09:55	9.9	16.8	36.3	8.1
331	9/15/99	5071200					
332	10/7/99	5072200	11:55	7.8	16.7	35.8	8.1
333	10/8/99	5073200	15:20	6.0	16.7	36.1	8.9
334	10/8/99	5074200	13:47	9.9	16.7	36.2	8.2
335	10/8/99	5075200	12:20	7.3	16.1	36.0	8.5
338	10/7/99	5076200	12:55	7.3	17.1	36.1	7.7
339	10/7/99	5077200	15:30	11.5	17.4	35.1	8.4
340	10/8/99	5078200	09:46	10.5	16.8	36.3	8.4
341	10/8/99	5079200	11:08	9.8	16.1	36.1	8.5
345	10/7/99	5081200	14:45	11.1	17.5	36.3	7.9
346	10/8/99	5082200	07:55	11.9	17.2	36.4	8.3
349	9/15/99	5083200					
352	9/15/99	5085200					

APPENDIX 3

SEDIMENT GRAIN-SIZE DATA FOR THE 1999 NEW BEDFORD HARBOR LONG-TERM MONITORING III

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No	Station No	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev
5001006	105	1.5	47.3	30.0	21.1	1.54	2.28	3.03	9.23	17.18	15.59	4.80	2.85
5001007	105	0.3	44.6	34.1	21.0	0.32	1.95	3.31	5.94	13.99	19.40	5.06	2.67
5001008	105	0.2	46.1	32.9	20.8	0.16	1.19	1.94	8.95	17.68	16.39	5.00	2.65
5001027	105	2.0	46.9	34.8	16.2	2.05	1.77	2.73	6.38	15.25	20.75	4.73	2.65
5002006	108	0.2	29.0	39.7	31.1	0.16	0.58	2.47	4.45	12.03	9.47	5.89	2.61
5002007	108	4.6	29.0	34.3	32.0	4.62	1.48	3.55	5.44	9.90	8.66	5.52	3.13
5002008	108	0.0	29.4	36.8	33.9	0.00	1.08	4.14	6.30	8.87	8.96	5.90	2.77
5002027	108	0.2	25.7	37.9	36.1	0.25	1.72	4.06	5.66	6.76	7.50	6.05	2.79
5003006	109	2.4	35.5	42.3	19.8	2.44	1.99	4.23	7.95	10.26	11.03	5.06	2.82
5003007	109	5.2	37.9	39.1	17.9	5.16	2.94	4.72	8.77	9.32	12.10	4.68	3.02
5003008	109	0.9	29.5	48.1	21.6	0.87	1.09	3.78	5.46	8.66	10.48	5.49	2.57
5003027	109	2.3	31.7	42.9	23.1	2.27	3.40	4.54	7.03	8.01	8.69	5.24	2.92
5004006	111	0.7	32.7	43.7	22.9	0.70	1.67	2.48	4.37	13.45	10.69	5.45	2.61
5004007	111	0.4	30.2	43.5	25.9	0.37	1.29	2.15	3.81	10.46	12.43	5.70	2.55
5004008	111	0.3	24.3	49.9	25.5	0.26	0.98	1.90	3.40	8.63	9.42	5.89	2.40
5004027	111	2.4	32.6	43.0	22.0	2.41	1.65	2.52	4.88	11.96	11.58	5.31	2.74
5005006	114	0.6	17.8	49.0	32.6	0.56	1.31	1.87	2.90	5.90	5.80	6.27	2.44
5005007	114	0.8	32.2	19.1	47.9	0.82	0.55	2.45	5.73	13.37	10.09	6.23	3.02
5005008	114	0.0	19.7	51.3	29.0	0.00	0.36	0.84	2.52	7.56	8.41	6.21	2.22
5005027(A)	114	1.9	20.7	50.2	27.1	1.93	3.49	3.13	3.98	5.30	4.82	5.79	2.77
5005027(B)	114	4.0	20.6	48.5	26.9	3.98	3.10	3.87	4.54	4.87	4.20	5.61	2.96
5005027(C)	114	1.9	23.5	50.2	24.4	1.91	2.77	3.72	5.16	6.40	5.44	5.61	2.75
5006006	115	0.0	33.7	47.0	19.3	0.00	4.64	6.51	6.78	9.18	6.60	5.13	2.80
5006007	115	0.4	38.3	43.1	18.2	0.45	8.62	8.26	6.82	5.83	8.80	4.77	3.02
5006008	115	0.1	32.3	46.9	20.6	0.11	4.59	8.25	6.76	6.65	6.08	5.17	2.87
5006027	115	0.3	27.1	47.9	24.7	0.30	1.83	5.79	5.94	6.55	7.01	5.61	2.68
5007006	117	0.9	20.5	36.9	41.7	0.88	6.88	4.38	3.38	2.75	3.13	6.17	3.11
5007007	117	3.8	29.5	39.2	27.5	3.80	3.15	5.09	8.32	7.11	5.81	5.29	3.14
5007008	117	5.8	41.4	29.0	23.9	5.82	5.10	6.96	11.27	10.55	7.47	4.50	3.39
5007027(A)	117	2.1	25.6	41.1	31.2	2.11	4.22	3.48	5.60	6.65	5.60	5.69	3.01
5007027(B)	117	6.6	21.2	40.0	32.1	6.61	2.62	3.88	4.22	5.24	5.24	5.58	3.25
5007027(C)	117	7.4	21.8	39.6	31.2	7.37	3.12	3.74	4.24	5.37	5.37	5.46	3.31
5008006	120	8.0	28.8	37.0	26.2	8.00	8.71	5.42	5.07	5.16	4.45	4.80	3.56
5008007	120	4.1	30.9	40.2	24.7	4.13	7.17	5.65	5.90	6.58	5.65	5.02	3.27

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No.	Station No.	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev
5008008	120	2.9	33.6	39.8	23.8	2.85	6.75	5.84	6.61	8.00	6.40	5.00	3.18
5008027	120	9.2	26.2	39.2	25.5	9.21	7.54	5.00	4.90	4.70	4.02	4.82	3.55
5009006	121	4.6	28.7	42.4	24.4	4.58	8.17	4.01	7.45	5.66	3.37	5.02	3.30
5009007	121	2.0	24.0	46.3	27.6	2.01	4.28	4.53	6.63	5.21	3.36	5.59	2.97
5009008	121	2.1	25.7	42.5	29.7	2.08	5.07	4.24	6.40	5.73	4.24	5.58	3.06
5009027	121	2.7	27.2	48.2	22.0	2.71	6.97	4.74	6.44	5.33	3.68	5.17	3.06
5010006	123	7.1	34.1	36.7	22.2	7.05	5.88	5.88	8.91	8.42	4.99	4.61	3.38
5010007	123	6.6	39.0	35.3	19.1	6.55	5.07	6.62	10.43	9.58	7.33	4.40	3.28
5010008	123	2.4	32.5	41.0	24.1	2.45	3.63	4.98	8.27	9.03	6.58	5.18	3.02
5010027(A)	123	2.8	34.0	44.0	19.2	2.78	4.13	5.49	9.17	9.02	6.24	4.91	2.98
5010027(B)	123	3.4	33.6	41.7	21.3	3.40	4.23	4.57	8.39	9.96	6.48	4.97	3.04
5010027(C)	123	4.3	29.3	41.5	24.8	4.33	5.98	5.43	7.63	6.06	4.25	5.07	3.24
5011006	125	0.0	8.1	64.5	27.4	0.00	0.61	1.42	1.93	2.23	1.93	6.49	1.92
5011007	125	0.0	7.7	59.6	32.7	0.00	0.31	1.03	1.76	2.38	2.17	6.69	1.92
5011008	125	0.0	5.4	66.1	28.4	0.00	0.00	0.41	1.02	1.74	2.25	6.67	1.67
5011027	125	3.5	10.3	61.3	24.9	3.49	1.08	1.41	1.81	2.96	3.02	6.08	2.45
5012006	126	1.0	89.4	5.9	3.7	1.01	2.33	7.19	20.72	39.83	19.33	2.68	1.82
5012007	126	11.2	78.0	4.7	6.1	11.17	5.40	9.24	20.20	30.90	12.23	2.19	2.46
5012008	126	2.8	89.8	4.3	3.2	2.76	3.78	7.77	23.45	40.76	14.00	2.39	1.83
5012027	126	3.0	55.1	30.0	11.9	3.03	2.36	4.93	13.59	16.98	17.25	4.07	2.73
5012006	128	1.9	21.1	49.3	27.7	1.89	3.65	3.38	3.65	5.68	4.74	5.78	2.80
5012007	128	2.5	21.5	53.0	23.0	2.48	4.32	4.00	3.35	4.65	5.19	5.56	2.81
5012008	128	3.7	26.8	43.7	25.8	3.72	5.85	4.51	4.75	5.54	6.17	5.30	3.13
5012027	128	0.1	22.1	56.5	21.2	0.11	2.54	2.76	3.46	6.44	6.93	5.76	2.40
5012028	128	1.0	23.2	56.6	19.2	1.01	4.48	3.42	4.05	5.45	5.78	5.50	2.61
5014006	130	9.5	23.6	44.7	22.2	9.45	3.00	3.80	4.24	6.10	6.45	4.99	3.27
5014007	130	0.0	12.0	59.6	28.4	0.00	0.30	0.80	2.00	4.70	4.20	6.43	2.00
5014008	130	0.0	34.2	42.9	22.9	0.00	3.10	4.61	5.40	10.57	10.49	5.36	2.72
5014027	130	0.9	34.2	45.3	19.6	0.92	4.59	3.56	5.94	9.93	10.15	5.16	2.76
5015006	131	1.9	33.3	41.9	22.9	1.85	4.14	4.76	7.67	8.47	8.29	5.17	2.95
5015007	131	1.2	32.1	44.6	22.1	1.23	2.75	3.40	6.66	9.92	9.34	5.32	2.75
5015008	131	2.1	30.4	43.9	23.5	2.15	2.31	3.63	5.94	8.75	9.74	5.38	2.81
5015027(A)	131	9.4	32.1	38.1	20.4	9.40	3.08	4.91	6.99	8.23	8.90	4.61	3.31
5015027(B)	131	6.1	31.5	40.3	22.0	6.14	4.17	3.99	7.03	7.99	8.35	4.90	3.18

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No.	Station No.	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev
5015027(C)	131	5.6	32.8	40.2	21.4	5.65	3.89	3.70	7.34	9.04	8.79	4.89	3.13
5016006	134	0.8	27.6	44.3	27.3	0.79	1.35	3.72	4.62	7.55	10.37	5.74	2.65
5016007	134	0.1	30.4	40.0	29.5	0.11	3.57	3.89	6.60	8.33	8.00	5.64	2.85
5016008	134	0.0	25.0	46.9	28.1	0.00	0.19	2.58	3.82	7.54	10.88	5.98	2.40
5016027	134	1.9	27.8	45.2	25.1	1.85	5.95	3.70	4.17	6.22	7.80	5.42	2.95
5017006	135	10.7	85.4	1.9	2.0	10.72	2.63	11.25	26.66	35.21	9.60	1.79	1.83
5017007	135	1.7	95.1	1.5	1.7	1.73	4.19	9.90	30.56	41.58	8.88	2.05	1.46
5017008	135	4.4	88.3	4.0	3.3	4.44	3.62	7.33	22.90	42.00	12.43	2.32	1.88
5017027	135	8.2	86.4	3.1	2.3	8.24	5.16	11.71	27.31	30.79	11.39	1.88	1.90
5018006	138	0.3	25.7	47.9	26.1	0.27	3.79	6.31	5.05	4.24	6.31	5.64	2.80
5018007	138	0.6	27.2	42.2	30.1	0.56	5.15	6.38	5.37	5.37	4.92	5.62	3.01
5018008	138	1.7	27.9	43.0	27.4	1.70	7.76	6.79	4.97	4.49	3.88	5.34	3.18
5018027	138	0.5	18.4	47.8	33.2	0.54	4.88	5.31	3.25	2.49	2.49	6.05	2.84
5019006	139	1.3	40.3	41.8	16.5	1.31	2.40	3.09	6.03	12.44	16.38	4.96	2.62
5019007	139	2.2	41.4	38.4	18.0	2.23	3.88	3.95	5.46	10.93	17.18	4.84	2.81
5019008	139	1.3	39.7	40.9	18.1	1.33	2.92	4.78	5.77	11.41	14.79	4.96	2.73
5019027	139	9.9	34.2	40.1	15.9	9.88	3.34	4.19	5.52	8.47	12.70	4.43	3.18
5020006	140	4.3	30.1	43.7	21.8	4.34	2.49	1.95	3.90	9.43	12.36	5.25	2.86
5020007	140	0.1	31.0	43.3	25.6	0.10	1.45	2.90	4.56	9.34	12.76	5.65	2.57
5020008	140	0.0	25.9	49.7	24.4	0.00	0.56	1.53	3.54	8.30	11.92	5.86	2.31
5020027	140	1.3	30.2	47.5	21.0	1.33	2.46	3.15	4.88	7.00	12.72	5.41	2.63
5021006	146	48.3	33.8	10.2	7.7	48.27	1.26	2.26	5.71	18.89	5.71	1.34	3.35
5021007	146	11.4	57.9	17.9	12.8	11.36	3.11	4.78	9.84	29.74	10.42	3.32	3.07
5021008	146	5.2	64.9	17.0	13.0	5.19	2.82	4.07	7.75	36.76	13.46	3.62	2.79
5021027	146	5.2	66.9	17.7	10.2	5.23	3.34	5.06	11.00	36.01	11.45	3.38	2.70
5022006	147	14.6	65.5	11.9	8.0	14.61	0.75	4.31	16.11	30.73	13.61	2.72	2.77
5022007	147	0.6	84.4	9.6	5.4	0.57	1.31	4.20	14.66	31.15	33.08	3.23	1.95
5022008	147	3.0	74.9	21.7	0.3	3.03	1.45	4.74	15.87	33.52	19.36	3.06	1.91
5022027(A)	147	1.3	86.7	7.9	4.1	1.34	1.70	6.12	22.95	35.49	20.40	2.79	1.92
5022027(B)	147	1.0	87.8	7.0	4.2	0.97	1.87	6.42	25.11	35.55	18.88	2.73	1.90
5022027(C)	147	7.7	81.5	6.5	4.3	7.72	1.57	5.85	21.73	33.03	19.36	2.51	2.15
5023006	150	0.0	58.3	27.4	14.3	0.00	1.75	2.48	5.98	25.52	22.53	4.45	2.48
5023007	150	8.0	69.5	13.4	9.2	7.96	3.87	5.04	12.42	27.53	20.67	3.11	2.70
5023008	150	1.0	73.3	16.8	8.9	0.96	3.53	5.51	15.45	31.68	17.12	3.43	2.45

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No	Station No	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev
5023027	150	10.1	58.8	20.6	10.5	10.11	2.46	3.06	8.68	26.63	17.95	3.46	2.88
5024006	151	7.5	79.1	7.6	5.8	7.45	1.58	3.98	18.86	40.84	13.84	2.67	2.28
5024007	151	4.3	81.9	8.2	5.6	4.30	1.65	3.91	16.83	43.89	15.62	2.84	2.14
5024008	151	1.6	70.9	15.5	12.0	1.58	1.22	2.61	11.30	36.77	19.02	3.75	2.49
5024027(A)	151	1.0	84.5	8.5	6.0	0.98	1.15	3.34	16.60	46.92	16.46	3.05	2.00
5024027(B)	151	4.9	80.3	8.6	6.2	4.87	1.36	2.93	15.64	45.73	14.60	2.90	2.20
5024027(C)	151	1.3	82.9	9.3	6.5	1.31	1.61	3.46	16.49	45.37	16.00	3.07	2.09
5025006	152	2.5	50.7	35.8	10.9	2.54	3.75	4.68	9.85	11.26	21.15	4.27	2.67
5025007	152	3.2	37.3	45.9	13.6	3.20	1.52	2.64	6.29	8.70	18.14	4.88	2.59
5025008	152	10.3	39.4	37.8	12.5	10.34	2.59	5.62	7.09	9.81	14.31	4.10	3.11
5025027	152	2.1	56.8	30.0	11.1	2.11	3.91	5.51	11.55	13.89	21.94	4.06	2.68
5026006	154	15.5	64.7	8.4	11.3	15.54	3.38	9.46	39.37	11.27	1.25	2.24	3.05
5026007	154	10.7	80.8	3.5	5.0	10.71	6.38	14.06	46.80	12.66	0.88	1.59	2.24
5026008	154	11.8	77.0	6.3	5.0	11.75	3.44	5.63	39.43	25.94	2.51	1.99	2.33
5026027	154	5.6	60.9	20.1	13.4	5.63	3.55	7.27	16.71	20.23	13.13	3.56	2.97
5027006	155	5.0	87.8	2.5	4.7	5.02	2.32	3.40	17.75	53.06	11.27	2.49	1.93
5027007	155	2.1	92.8	1.5	3.7	2.06	3.73	7.17	31.14	44.85	5.90	2.20	1.72
5027008	155	1.9	89.4	2.7	6.1	1.89	3.01	5.56	33.50	41.68	5.59	2.43	2.02
5027027	155	5.1	91.0	1.8	2.1	5.12	6.96	12.48	43.69	25.37	2.48	1.62	1.66
5028006	202	10.0	71.8	10.0	8.2	10.03	3.00	3.27	13.89	38.57	13.07	2.82	2.62
5028007	202	7.8	67.0	12.0	13.2	7.84	3.50	4.23	14.62	32.06	12.59	3.25	2.91
5028008	202	10.8	63.9	12.8	12.5	10.79	2.96	3.20	10.91	34.38	12.45	3.19	2.95
5028027	202	11.7	86.1	1.1	1.1	11.73	9.21	40.96	33.11	2.52	0.29	0.72	1.45
5029006	204	32.6	43.6	12.3	11.5	32.57	0.98	2.09	20.30	17.36	2.87	2.13	3.44
5029007	204	8.4	70.8	11.0	9.8	8.41	3.67	6.74	35.72	21.63	3.00	2.61	2.79
5029008	204	5.9	43.0	27.9	23.2	5.93	0.68	2.20	17.46	19.15	3.56	4.54	3.22
5029027	204	11.2	66.4	14.8	7.6	11.25	3.90	6.87	27.10	22.95	5.59	2.59	2.78
5030006	207	0.9	49.9	34.8	14.4	0.94	1.37	1.00	6.98	20.57	19.95	4.68	2.48
5030007	207	0.0	42.6	40.2	17.2	0.00	0.41	1.83	6.33	16.08	17.91	5.09	2.41
5030008	207	0.1	50.5	33.3	16.1	0.07	1.26	2.59	6.00	20.88	19.77	4.76	2.50
5030027	207	0.1	46.3	39.9	13.7	0.10	0.47	1.36	5.32	20.15	19.05	4.88	2.32
5031006	208	2.1	88.3	4.7	4.9	2.11	2.94	13.37	35.71	30.38	5.89	2.24	2.03
5031007	208	0.9	90.2	4.7	4.2	0.88	2.50	11.26	34.19	35.00	7.29	2.33	1.88
5031008	208	2.1	93.0	2.5	2.4	2.07	4.51	17.34	37.27	27.26	6.63	1.88	1.68

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No.	Station No	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev.
5031027(A)	208	2.5	90.6	4.2	2.7	2.51	3.06	12.55	33.67	33.73	7.59	2.12	1.76
5031027(B)	208	1.7	91.6	3.8	3.0	1.66	3.07	13.15	32.79	33.45	9.12	2.17	1.76
5031027(C)	208	1.2	91.6	4.3	2.9	1.22	3.05	12.57	34.42	34.53	7.06	2.17	1.74
5032006	211	3.0	36.1	39.7	21.1	3.02	1.62	3.38	7.50	11.70	11.92	5.07	2.85
5032007	211	1.7	37.7	39.1	21.6	1.67	2.76	3.53	7.38	12.45	11.56	5.09	2.83
5032008	211	1.0	30.4	46.5	22.2	0.99	2.71	3.28	4.60	8.54	11.25	5.45	2.66
5032027	211	2.8	26.1	47.6	23.6	2.76	3.30	2.56	3.70	7.00	9.55	5.49	2.79
5033006	212	37.6	14.4	26.8	21.1	37.61	0.84	1.99	3.98	4.66	2.98	3.23	4.23
5033007	212	1.8	31.3	43.8	23.2	1.77	1.85	2.95	7.08	12.05	7.33	5.36	2.78
5033008	212	0.3	35.8	41.0	22.8	0.33	4.06	5.97	7.71	9.29	8.79	5.17	2.89
5033027	212	1.4	32.8	37.8	28.1	1.37	3.15	3.97	7.38	10.58	7.73	5.42	2.96
5034006	216	12.1	46.9	24.8	16.1	12.12	4.31	5.97	13.61	12.75	10.28	3.65	3.37
5034007	216	6.6	76.1	10.6	6.7	6.61	5.19	13.91	29.17	19.71	8.14	2.40	2.56
5034008	216	16.0	38.2	27.1	18.8	15.95	4.91	5.32	9.90	10.39	7.69	3.75	3.61
5034027	216	11.2	63.7	17.0	8.1	11.23	4.72	11.82	23.54	15.80	7.79	2.63	2.91
5035006	217	0.4	29.1	43.7	26.8	0.35	4.50	6.97	6.35	6.52	4.76	5.47	2.95
5035007	217	0.0	25.1	45.0	30.0	0.00	6.10	5.32	4.88	4.10	4.66	5.73	2.93
5035008	217	0.3	19.5	48.4	31.8	0.32	0.43	2.56	4.26	6.71	5.54	6.20	2.45
5035027	217	1.3	25.5	46.7	26.5	1.33	6.34	4.96	4.67	5.13	4.38	5.51	2.99
5036006	218	9.3	83.6	4.0	3.1	9.29	8.11	14.59	33.04	15.51	2.36	1.63	2.05
5036007	218	12.2	82.9	2.7	2.1	12.23	7.90	13.36	33.74	25.16	2.79	1.43	1.91
5036008	218	10.8	82.2	4.1	2.9	10.78	7.04	13.60	33.54	25.41	2.57	1.61	2.05
5036027(A)	218	6.5	83.3	5.5	4.6	6.52	6.18	12.92	34.07	27.66	2.48	1.97	2.20
5036027(B)	218	7.7	83.0	4.3	4.9	7.74	6.74	14.22	30.69	24.94	6.44	1.93	2.25
5036027(C)	218	6.9	85.0	4.3	3.7	6.91	6.51	13.46	35.11	27.80	2.16	1.82	2.06
5037006	220	13.2	51.6	19.9	15.2	13.24	3.69	5.85	17.08	18.08	6.93	3.33	3.33
5037007	220	6.1	55.7	24.9	13.3	6.09	4.28	6.48	14.31	17.72	12.90	3.72	3.01
5037008	220	34.5	40.7	12.6	12.2	34.47	4.48	5.12	13.30	12.98	4.86	2.04	3.58
5037027	220	5.9	59.7	22.5	12.0	5.92	7.68	9.69	14.39	15.53	12.38	3.38	3.05
5038006	221	0.0	35.4	42.4	22.2	0.00	4.91	4.82	6.55	9.25	9.83	5.22	2.83
5038007	221	0.0	33.9	46.5	19.7	0.00	4.23	5.55	7.23	7.14	9.70	5.19	2.74
5038008	221	0.0	25.3	50.6	24.1	0.00	3.52	3.77	4.67	6.30	7.04	5.68	2.62
5038027(A)	221	0.0	24.5	50.3	25.2	0.00	0.39	3.02	4.85	6.43	9.84	5.88	2.39
5038027(B)	221	0.5	26.6	46.7	26.2	0.47	3.07	4.14	4.61	5.32	9.45	5.70	2.69

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No	Station No	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev
5038027(C)	221	0.0	27.8	49.2	23.0	0.00	1.72	3.84	5.29	6.62	10.32	5.64	2.52
5039006	222	8.9	47.9	24.3	18.9	8.89	4.78	7.36	13.39	15.30	7.08	3.87	3.38
5039007	222	10.8	57.5	16.6	15.1	10.84	6.99	9.75	17.95	16.67	6.15	3.10	3.32
5039008	222	14.1	50.7	20.8	14.3	14.06	7.06	8.30	14.32	15.10	5.96	3.14	3.41
5039027	222	18.5	43.5	23.1	14.9	18.49	9.02	9.80	11.20	8.90	4.61	3.00	3.63
5040006	224	3.7	18.4	44.3	33.5	3.74	0.58	2.16	3.74	5.04	6.91	6.05	2.80
5040007	224	2.4	19.6	48.4	29.7	2.38	0.97	2.81	3.24	5.73	6.81	5.98	2.66
5040008	224	2.5	20.7	53.7	23.0	2.53	0.84	2.34	3.65	6.56	7.31	5.74	2.55
5040027	224	0.8	32.3	43.4	23.5	0.84	2.72	4.25	5.43	10.10	9.82	5.39	2.76
5041006	225	2.6	31.5	39.7	26.2	2.62	5.64	4.03	5.44	6.85	9.56	5.28	3.07
5041007	225	15.7	45.4	21.7	17.2	15.66	4.80	5.51	12.47	13.83	8.79	3.46	3.52
5041008	225	1.3	54.7	22.7	21.2	1.35	7.42	6.41	12.98	15.43	12.48	4.27	3.17
5041027	225	3.7	43.9	31.9	20.4	3.73	8.51	5.22	8.95	10.98	10.27	4.45	3.24
5042006	226	1.0	32.6	40.6	25.8	0.99	5.80	7.64	7.89	6.91	4.32	5.20	3.12
5042007	226	0.8	35.2	40.3	23.7	0.84	6.39	6.64	7.48	10.01	4.71	5.06	3.08
5042008	226	0.0	30.6	40.6	28.8	0.00	3.82	7.95	6.88	7.49	4.44	5.49	2.99
5042027	226	0.0	16.5	51.2	32.3	0.00	1.44	3.53	4.17	3.93	3.45	6.27	2.46
5042028	226	0.0	23.9	49.5	26.6	0.00	4.44	4.44	3.88	5.64	5.50	5.76	2.72
5043006	227	0.3	44.9	37.3	17.5	0.32	1.46	3.81	4.86	11.10	23.66	5.00	2.52
5043007	227	2.5	46.5	32.3	18.8	2.47	2.93	3.39	4.55	12.25	23.35	4.78	2.78
5043008	227	0.2	54.7	29.5	15.6	0.25	2.03	2.46	5.67	16.94	27.60	4.64	2.50
5043027(A)	227	0.9	47.9	34.9	16.3	0.88	2.12	2.71	5.48	13.53	24.06	4.82	2.56
5043027(B)	227	0.7	48.4	34.8	16.0	0.74	1.93	2.67	5.28	13.23	25.34	4.82	2.52
5043027(C)	227	1.2	46.6	35.5	16.8	1.24	1.41	2.32	4.98	13.53	24.31	4.88	2.54
5044006	230	2.5	60.4	23.1	13.9	2.54	5.54	9.23	17.16	17.62	10.85	3.70	2.97
5044007	230	11.6	52.6	21.6	14.2	11.55	5.03	7.36	14.46	16.07	9.68	3.37	3.28
5044008	230	2.0	55.3	25.9	16.8	1.96	3.85	7.43	16.40	18.29	9.32	4.09	3.00
5044027(A)	230	2.5	58.9	25.1	13.6	2.47	6.07	9.58	15.65	16.79	10.81	3.74	2.98
5044027(B)	230	1.0	57.9	25.1	16.0	1.02	5.55	9.12	15.82	17.48	9.95	3.97	2.99
5044027(C)	230	5.3	54.8	25.3	14.5	5.31	5.38	8.98	15.01	15.41	10.03	3.73	3.11
5045006	231	6.4	57.8	24.2	11.6	6.40	4.83	8.27	18.96	15.15	10.57	3.45	3.01
5045007	231	1.8	24.3	49.0	24.8	1.84	3.48	3.68	4.09	5.11	7.98	5.62	2.77
5045008	231	1.8	17.0	52.3	28.9	1.82	2.99	4.03	2.99	2.21	4.81	5.98	2.70
5045027	231	1.0	23.4	49.5	26.1	1.03	4.11	2.62	3.64	4.95	8.13	5.75	2.69

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No.	Station No.	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev
5046006	235	2.8	19.4	47.1	30.7	2.83	1.62	3.91	3.24	4.45	6.20	5.93	2.79
5046007	235	0.1	21.9	49.5	28.5	0.13	3.90	5.24	3.49	4.17	5.11	5.87	2.72
5046008	235	4.4	28.6	43.6	23.4	4.42	6.21	4.42	4.21	7.06	6.74	5.12	3.15
5046027(A)	235	6.1	25.0	42.4	26.5	6.11	9.21	3.30	2.60	4.81	5.11	5.14	3.38
5046027(B)	235	3.7	24.6	42.0	29.7	3.71	6.84	3.36	3.01	5.33	6.02	5.51	3.17
5046027(C)	235	5.6	23.5	42.2	28.7	5.63	6.88	3.33	3.44	4.58	5.31	5.36	3.29
5047006	236	25.1	38.3	20.9	15.6	25.14	5.96	6.62	9.34	7.72	8.68	2.92	3.74
5047007	236	11.9	44.1	24.8	19.2	11.91	5.73	3.22	4.84	11.73	18.54	4.04	3.40
5047008	236	14.8	52.0	20.4	12.9	14.77	4.00	3.59	7.53	15.35	21.53	3.41	3.20
5047027	236	6.4	35.0	36.9	21.7	6.45	7.32	3.49	5.63	7.84	10.69	4.70	3.29
5048006	237	9.5	43.8	29.9	16.8	9.50	7.29	6.96	10.65	9.42	9.50	3.89	3.39
5048007	237	44.2	35.6	11.7	8.5	44.23	11.50	9.50	8.16	4.28	2.14	1.10	3.41
5048008	237	43.4	41.8	6.8	8.0	43.37	18.95	11.85	7.29	2.74	0.95	0.66	3.17
5048027	237	21.5	57.8	13.4	7.3	21.48	14.55	15.03	15.31	8.08	4.86	1.74	3.11
5049006	240	1.6	23.3	46.7	28.4	1.61	6.99	3.67	2.98	4.13	5.50	5.66	2.98
5049007	240	5.5	27.4	43.4	23.7	5.50	9.39	4.53	4.75	4.10	4.64	4.96	3.35
5049008	240	1.4	24.9	43.5	30.2	1.40	7.47	5.14	2.65	3.27	6.38	5.64	3.07
5049027	240	5.9	24.8	42.1	27.2	5.91	7.56	3.58	2.71	5.13	5.81	5.24	3.32
5050006	241	20.8	53.5	15.7	9.9	20.85	6.82	7.85	15.11	13.83	9.91	2.45	3.26
5050007	241	11.0	48.9	25.2	14.9	11.04	5.83	6.44	14.35	13.90	8.41	3.54	3.32
5050008	241	18.2	52.3	17.9	11.5	18.24	7.47	9.53	14.69	12.78	7.83	2.66	3.35
5050027	241	18.9	50.2	20.2	10.7	18.87	6.72	7.47	15.50	13.04	7.44	2.72	3.33
5051006	242	13.3	65.0	13.3	8.3	13.34	3.97	3.92	11.10	24.77	21.28	2.88	2.82
5051007	242	6.8	71.6	13.7	7.8	6.83	3.27	4.57	13.49	28.22	22.10	3.11	2.56
5051008	242	16.0	56.9	16.0	11.1	16.02	3.94	3.87	8.98	22.09	18.02	3.04	3.12
5051027	242	8.4	67.0	16.3	8.3	8.37	2.82	4.36	11.18	27.42	21.22	3.21	2.66
5052006	245	14.2	79.6	3.4	2.8	14.17	11.15	18.81	28.21	17.12	4.35	1.29	2.12
5052007	245	9.1	84.6	3.4	2.9	9.10	8.63	22.78	33.64	13.75	5.79	1.45	2.02
5052008	245	11.3	67.8	13.1	7.8	11.31	5.21	10.00	22.37	20.34	9.87	2.53	2.81
5052027	245	10.8	80.0	4.9	4.3	10.84	8.21	17.84	28.94	18.20	6.82	1.69	2.30
5054006	247	1.3	71.8	18.1	8.8	1.27	2.31	1.85	12.07	29.45	26.10	3.69	2.32
5054007	247	0.7	76.7	16.2	6.5	0.72	0.80	2.55	15.65	29.68	27.98	3.51	2.10
5054008	247	0.7	78.3	13.9	7.1	0.72	5.52	5.85	14.35	27.27	25.28	3.25	2.32
5054027	247	0.2	70.9	20.3	8.6	0.24	6.32	5.43	12.03	23.34	23.74	3.58	2.48

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No	Station No	Gravel	Sand	Silt	Clay	<=1	0	1	2	3	4	Mean	Dev
5055006	249	3.4	87.0	6.0	3.6	3.39	3.50	11.89	25.02	29.73	16.89	2.38	2.00
5055007	249	2.6	85.8	6.0	5.6	2.61	5.82	15.22	22.73	25.94	16.09	2.42	2.25
5055008	249	4.3	82.3	8.3	5.1	4.32	5.73	14.27	21.86	26.77	13.68	2.41	2.30
5055027	249	4.7	80.4	9.1	5.7	4.67	3.90	7.53	13.71	24.91	30.40	2.91	2.29
5056006	250	0.6	8.5	74.4	16.5	0.57	1.56	1.37	1.42	1.79	2.36	6.09	1.88
5056007	250	4.7	86.0	5.1	4.1	4.75	9.81	31.02	41.32	3.32	0.51	1.44	2.13
5056008	250	6.3	34.8	34.3	24.6	6.30	9.51	5.53	5.75	6.74	7.30	4.67	3.48
5056027	250	0.2	51.9	29.5	18.4	0.20	3.74	11.80	11.30	13.07	11.99	4.38	2.99
5057006	253	0.9	77.0	15.1	7.1	0.87	2.19	5.56	20.95	31.84	16.44	3.23	2.29
5057007	253	2.9	67.9	20.4	8.9	2.90	2.19	4.27	18.31	28.23	14.85	3.49	2.54
5057008	253	8.6	59.4	19.1	12.8	8.61	1.41	3.64	15.32	26.82	12.25	3.51	2.94
5057027	253	10.3	55.0	27.2	7.4	10.35	3.12	4.45	13.50	21.13	12.79	3.33	2.86
5058006	304	8.0	85.1	4.0	2.9	8.04	3.92	13.03	36.61	26.51	4.99	1.81	1.96
5058007	304	6.5	82.7	6.7	4.1	6.46	2.82	11.05	34.59	28.97	5.29	2.14	2.13
5058008	304	22.6	59.9	11.5	6.1	22.55	2.05	3.78	21.26	28.07	4.72	2.09	2.83
5058027	304	8.3	81.7	7.0	3.0	8.31	1.66	6.55	29.93	36.58	6.96	2.20	2.04
5060006	306	7.9	92.1	0.0	0.0	7.90	2.70	8.42	65.25	14.65	1.07	1.29	1.02
5060007	306	3.9	96.1	0.0	0.0	3.90	2.92	9.83	66.22	15.66	1.48	1.41	0.88
5060008	306	3.1	96.9	0.0	0.0	3.07	1.60	7.39	67.63	18.77	1.54	1.52	0.81
5060027(A)	306	4.3	95.7	0.0	0.0	4.29	2.26	7.88	69.70	15.02	0.85	1.41	0.86
5060027(B)	306	3.2	96.8	0.0	0.0	3.21	2.01	7.01	71.15	15.29	1.33	1.47	0.80
5060027(C)	306	6.8	93.3	0.0	0.0	6.81	2.14	7.61	66.44	15.94	1.06	1.36	0.98
5061006	309	0.1	28.8	53.9	17.3	0.09	4.26	4.26	3.64	4.44	12.17	5.38	2.52
5061007	309	0.0	22.7	59.9	17.4	0.00	1.22	2.62	2.54	3.59	12.77	5.74	2.14
5061008	309	0.1	25.9	58.0	16.0	0.08	1.22	1.63	2.45	4.57	16.01	5.63	2.10
5061027	309	0.0	21.6	60.7	17.7	0.00	0.00	0.57	1.23	3.69	16.08	5.91	1.86
5062006	310	10.0	50.3	32.8	6.9	10.01	4.17	6.59	11.79	11.38	16.40	3.48	2.91
5062007	310	4.1	55.0	35.2	5.7	4.10	2.60	5.99	15.78	11.89	18.73	3.77	2.56
5062008	310	7.0	56.5	30.2	6.4	6.95	2.81	5.90	13.31	13.59	20.86	3.57	2.68
5062027	310	12.7	54.4	26.2	6.7	12.67	4.85	8.34	15.29	12.14	13.78	3.02	2.98
5063006	311	4.5	92.1	1.5	1.8	4.51	5.61	14.07	44.72	26.64	1.10	1.61	1.55
5063007	311	5.6	90.4	1.7	2.3	5.59	3.80	10.09	42.11	33.12	1.32	1.76	1.64
5063008	311	3.9	92.5	1.0	2.6	3.92	4.87	11.39	40.30	34.33	1.61	1.78	1.62
5063027(A)	311	11.6	84.4	1.5	2.4	11.64	6.17	11.27	36.81	28.65	1.55	1.48	1.84

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No.	Station No.	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev
5063027(B)	311	10.1	86.5	1.3	2.0	10.09	6.78	12.70	36.89	28.79	1.40	1.46	1.75
5063027(C)	311	8.5	88.0	1.4	2.1	8.51	7.10	11.75	40.20	27.61	1.30	1.51	1.72
5071006	311	0.5	24.1	47.0	28.4	0.47	2.54	4.08	5.62	4.91	6.98	5.83	2.70
5064006	317	1.0	34.9	44.4	19.7	1.00	9.00	6.15	4.54	4.77	10.39	4.96	3.01
5064007	317	0.0	27.0	49.2	23.7	0.00	2.48	7.21	4.63	3.87	8.82	5.59	2.68
5064008	317	0.9	36.9	43.0	19.1	0.91	3.49	5.44	4.47	6.63	16.89	5.12	2.71
5064027	317	2.9	29.4	49.9	17.7	2.95	1.75	7.27	4.79	4.42	11.14	5.15	2.77
5065006	318	15.7	80.4	1.8	2.2	15.65	3.92	16.44	42.79	15.35	1.88	1.22	1.86
5065007	318	18.0	78.7	1.4	1.9	17.99	2.74	15.57	41.66	16.07	2.64	1.17	1.85
5065008	318	10.6	86.8	0.7	1.8	10.62	4.25	14.69	45.61	20.37	1.92	1.36	1.64
5065027	318	11.4	86.6	0.8	1.2	11.43	4.23	14.78	45.32	20.01	2.23	1.30	1.56
5065028(A)	318	14.8	83.3	0.6	1.3	14.82	5.16	21.43	41.54	14.02	1.18	1.02	1.60
5065028(B)	318	14.1	84.0	0.4	1.5	14.09	4.94	21.54	42.31	14.18	1.01	1.06	1.62
5065028(C)	318	14.9	83.3	0.5	1.3	14.93	5.19	21.85	42.06	13.25	0.92	1.00	1.59
5066006	323	18.0	26.7	42.0	13.3	18.04	1.57	1.71	3.28	6.20	13.91	4.14	3.37
5066007	323	20.6	34.9	34.8	9.8	20.61	3.20	7.00	7.10	7.45	10.11	3.32	3.43
5066008	323	9.2	47.0	34.4	9.5	9.16	4.02	5.82	10.16	10.56	16.42	3.78	2.99
5066027	323	3.6	42.0	41.9	12.6	3.57	3.13	4.89	9.29	10.12	14.57	4.50	2.78
5067006	324	2.5	36.6	43.0	17.8	2.48	5.71	5.83	7.57	7.44	10.11	4.80	2.97
5067007	324	1.1	36.4	43.3	19.2	1.07	5.96	5.72	6.85	7.92	9.95	4.96	2.91
5067008	324	0.3	33.7	47.1	18.9	0.27	3.68	6.74	6.95	7.56	8.79	5.14	2.75
5067027	324	0.9	32.1	46.9	20.1	0.95	3.92	5.06	6.68	7.43	9.05	5.21	2.78
5068006	325	1.1	32.0	52.5	14.4	1.09	2.14	3.78	5.70	8.02	12.36	5.16	2.48
5068007	325	0.0	31.4	50.4	18.2	0.00	0.42	2.04	5.23	7.75	15.93	5.50	2.28
5068008	325	0.8	48.0	34.8	16.3	0.80	1.44	4.32	15.95	15.28	11.04	4.57	2.75
5068027	325	0.1	38.6	44.4	16.8	0.11	0.91	3.06	12.07	12.31	10.27	5.04	2.56
5071007	331	0.3	23.9	55.7	20.1	0.32	6.12	3.97	3.81	4.13	5.88	5.50	2.68
5071008	331	0.7	24.9	53.5	21.0	0.69	4.60	5.22	3.99	3.68	7.36	5.50	2.70
5071027	331	0.0	22.3	57.4	20.3	0.00	4.51	4.35	3.51	3.57	6.35	5.64	2.54
5072006	332	2.6	81.6	11.4	4.4	2.57	6.09	14.43	36.90	20.80	3.35	2.28	2.27
5072007	332	0.5	76.6	14.8	8.1	0.46	3.06	11.44	38.46	20.34	3.32	2.85	2.52
5072008	332	0.9	77.7	14.4	7.0	0.95	2.70	12.68	38.26	21.02	3.00	2.73	2.45
5072027	332	2.7	77.9	13.3	6.0	2.73	3.81	11.08	37.50	22.71	2.82	2.57	2.41
5073006	333	11.9	64.5	13.5	10.1	11.92	12.93	14.56	22.25	12.10	2.63	2.28	3.12

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							
Sample No	Station No	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Std Dev
5073007	333	26.3	64.8	5.1	3.8	26.25	25.66	14.01	17.20	6.87	1.04	0.67	2.48
5073008	333	55.6	33.9	5.4	5.1	55.61	11.95	7.34	9.62	4.26	0.76	0.20	2.81
5073027(A)	333	29.3	62.8	4.1	3.8	29.35	22.47	15.07	18.11	6.46	0.69	0.56	2.42
5073027(B)	333	44.6	49.9	2.7	2.9	44.61	19.09	12.10	13.47	4.79	0.42	0.05	2.24
5073027(C)	333	31.7	62.0	3.3	3.1	31.66	24.84	14.39	16.17	6.00	0.60	0.36	2.27
5074006	334	0.9	26.4	51.4	21.3	0.89	1.66	2.16	5.16	7.39	10.00	5.61	2.49
5074007	334	0.1	23.0	51.3	25.6	0.13	1.73	3.66	4.06	5.06	8.45	5.87	2.48
5074008	334	3.3	38.7	40.5	17.5	3.34	3.39	5.44	8.98	10.03	10.88	4.73	2.94
5074027	334	2.9	33.9	42.1	21.1	2.92	3.18	5.17	7.89	8.55	9.15	5.04	2.96
5075006	335	12.9	82.3	2.4	2.3	12.91	3.11	12.55	47.29	18.74	0.62	1.41	1.85
5075007	335	0.8	84.3	7.5	7.3	0.81	0.84	6.74	37.08	38.15	1.52	2.69	2.20
5075008	335	0.9	87.6	5.4	6.1	0.91	1.72	8.93	39.19	36.34	1.42	2.44	2.07
5075027	335	10.9	78.2	5.6	5.3	10.92	4.18	8.33	28.03	35.64	2.02	2.05	2.34
5076006	338	0.3	21.8	57.3	20.7	0.27	0.20	1.47	3.47	7.42	9.22	5.86	2.17
5076007	338	0.0	23.7	55.9	20.4	0.00	2.06	3.69	3.86	4.81	9.27	5.70	2.38
5076008	338	0.0	24.3	58.4	17.3	0.00	1.66	2.58	3.15	4.75	12.20	5.66	2.21
5076027	338	1.1	23.7	55.3	20.0	1.06	2.12	3.48	2.95	4.99	10.14	5.63	2.46
5077006	339	0.0	37.6	45.9	16.4	0.00	1.55	1.55	2.30	8.98	23.26	5.31	2.27
5077007	339	0.8	29.7	49.1	20.4	0.77	2.57	2.37	2.31	6.03	16.43	5.53	2.47
5077008	339	0.0	37.2	47.5	15.2	0.00	1.35	1.35	2.34	9.83	22.37	5.29	2.22
5077027	339	0.4	44.3	40.7	14.6	0.38	1.80	2.24	4.42	11.63	24.19	4.96	2.39
5078006	340	0.1	22.0	59.4	18.5	0.07	1.22	1.90	2.24	3.86	12.81	5.81	2.12
5078007	340	0.1	27.7	54.1	18.2	0.05	1.02	1.66	4.12	5.94	14.99	5.62	2.22
5078008	340	0.5	32.3	49.5	17.8	0.46	0.40	2.12	6.07	7.96	15.75	5.41	2.35
5078027	340	0.5	27.9	52.4	19.3	0.50	0.75	1.62	4.56	7.81	13.12	5.60	2.32
5079006	341	0.4	60.1	26.8	12.7	0.42	1.26	7.59	20.29	24.31	6.65	3.92	2.72
5079007	341	4.0	64.4	20.3	11.3	3.96	2.52	13.24	23.92	19.99	4.74	3.26	2.90
5079008	341	0.3	68.6	19.3	11.8	0.29	2.33	12.56	25.45	23.26	4.99	3.41	2.76
5079027	341	0.5	67.8	20.7	11.0	0.53	1.72	10.43	25.12	25.30	5.24	3.46	2.69
5081006	345	0.0	19.0	61.5	19.5	0.00	0.32	0.91	1.88	2.42	13.44	6.01	1.92
5081007	345	0.0	14.6	67.2	18.1	0.00	0.17	0.87	1.39	1.80	10.38	6.10	1.76

Appendix 3. Sediment Grain-Size Data for the 1999 New Bedford Harbor Long-Term Monitoring III.

		%	%	%	%	PHI PERCENT							Std
Sample No	Station No	Gravel	Sand	Silt	Clay	<-1	0	1	2	3	4	Mean	Dev
5081008	345	0.1	14.8	62.6	22.6	0.06	0.78	0.96	1.02	1.32	10.66	6.21	1.92
5081027	345	0.0	18.2	60.0	21.8	0.00	0.23	1.16	1.32	2.02	13.43	6.11	1.94
5082006	346	1.6	86.9	7.4	4.2	1.55	0.66	2.76	30.72	49.62	3.11	2.62	1.85
5082007	346	0.2	85.8	8.1	5.9	0.17	0.85	3.06	37.96	41.56	2.39	2.72	2.02
5082008	346	0.4	79.9	12.0	7.7	0.41	0.58	2.56	33.61	40.59	2.54	3.03	2.24
5082027	346	0.6	86.5	9.1	3.7	0.60	1.97	5.75	35.75	41.18	1.90	2.52	1.89
5083006	349	0.1	52.7	37.4	9.8	0.14	2.21	4.27	6.98	8.86	30.38	4.52	2.32
5083007	349	0.0	46.6	41.9	11.4	0.04	1.43	2.64	4.65	5.19	32.71	4.89	2.20
5083008	349	0.1	48.1	42.7	9.2	0.11	1.16	3.12	4.53	5.26	34.00	4.78	2.13
5083027	349	0.2	49.9	39.4	10.5	0.16	1.11	1.90	3.98	6.64	36.31	4.81	2.13
5085006	352	19.8	66.9	8.7	4.6	19.82	15.95	23.22	20.60	5.01	2.10	1.18	2.65
5085007	352	30.8	51.1	11.3	6.8	30.85	13.70	17.26	14.87	2.83	2.46	1.22	3.10
5085008	352	71.3	23.3	2.9	2.5	71.29	11.16	7.37	3.55	0.89	0.37	-0.60	2.12
5085027	352	40.6	53.3	3.4	2.6	40.65	14.66	19.24	15.26	3.11	1.07	0.20	2.23

APPENDIX 4

TOC 1999 NEW BEDFORD HARBOR LONG-TERM MONITORING III SURVEY

Appendix 4. TOC 1999 New Bedford Harbor Long-Term Monitoring III Survey

Station ID	Bottle ID Inorganic	Workbook ID	TOC Average % dry wt.	Station ID	Bottle ID Inorganic	Workbook ID	TOC Average % dry wt.
105	5001036	WHG 4	6.1	225	5041036	WHG 2	5.4
108	5002036	WHG 5	10	226	5042036	WHG 2	6.4
109	5003036	WHG 5	6.7	226	5042037	WHG 2	6.5
111	5004036	WHG 4	6.5	227	5043036	WHG 2	4.5
114	5005036	WHG 4	10.1	230	5044036	WHG 2	3.7
115	5006036	WHG 4	7.2	231	5045036	WHG 2	9.2
117	5007036	WHG 2	7.7	235	5046036	WHG 1	4.6
120	5008036	WHG 2	7.1	236	5047036	WHG 1	4.2
121	5009036	WHG 2	6.9	237	5048036	WHG 3	3.9
123	5010036	WHG 3	8.3	240	5049036	WHG 1	5.0
125	5011036	WHG 3	8.3	241	5050036	WHG 1	3.5
126	5012036	WHG 3	8.4	242	5051036	WHG 1	1.9
128	5013036	WHG 3	9.1	245	5052036	WHG 1	0.51
128	5013037	WHG 3	7.3	247	5054036	WHG 1	3.3
130	5014036	WHG 4	8.4	249	5055036	WHG 1	2.8
131	5015036	WHG 3	8.5	250	5056036	WHG 1	4.9
134	5016036	WHG 4	8.0	253	5057036	WHG 1	3.0
135	5017036	WHG 4	0.64	304	5058036	WHG 1	0.85
138	5018036	WHG 4	10	306	5060036	WHG 1	0.038
139	5019036	WHG 3	8.1	309	5061036	WHG 5	3.3
140	5020036	WHG 4	5.5	310	5062036	WHG 1	1.3
146	5021036	WHG 4	3.5	311	5063036	WHG 1	0.22
147	5022036	WHG 3	1.6	317	5064036	WHG 5	3.6
150	5023036	WHG 3	5.2	318	5065036	WHG 5	0.11
151	5024036	WHG 3	2.1	318	5065037	WHG 5	0.072
152	5025036	WHG 3	3.5	323	5066036	WHG 5	1.8
154	5026036	WHG 3	5.4	324	5067036	WHG 5	3.1
155	5027036	WHG 3	0.52	325	5068036	WHG 5	2.5
202	5028036	WHG 5	0.16	331	5071036	WHG 1	2.4
204	5029036	WHG 2	2.3	332	5072036	WHG 5	1.2
207	5030036	WHG 2	3.7	333	5073036	WHG 5	0.88
208	5031036	WHG 2	0.83	334	5074036	WHG 5	2.1
211	5032036	WHG 2	5.4	335	5075036	WHG 5	0.58
212	5033036	WHG 3	7.0	338	5076036	WHG 5	2.4
216	5034036	WHG 2	2.8	339	5077036	WHG 5	1.9
217	5035036	WHG 2	7.0	340	5078036	WHG 5	2.1
218	5036036	WHG 2	1.4	341	5079036	WHG 5	1.3
220	5037036	WHG 2	3.7	345	5081036	WHG 5	2.3
221	5038036	WHG 3	8.2	346	5082036	WHG 5	0.21
222	5039036	WHG 2	4.7	349	5083036	WHG 1	0.80
224	5040036	WHG 2	5.5	352	5085036	WHG 1	0.48

APPENDIX 5

PCB DATA

5a. Total PCBs New Bedford Harbor Long-Term Monitoring III

5b. NOAA PCB Congeners New Bedford Harbor Long-Term Monitoring III

APPENDIX 5A
TOTAL PCBS NEW BEDFORD HARBOR LONG-TERM MONITORING III

Appendix 5A. Total PCBs New Bedford Harbor Long-Term Monitoring III

Station ID	Bottle ID	Workbook ID	tPCBs ug/g		Station ID	Bottle ID	Workbook ID	tPCBs ug/g
105	5001030	WHG 4	330		225	5041030	WHG 2	8.3
108	5002030	WHG 5	210		226	5042030	WHG 2	11
109	5003030	WHG 5	260		226	5042031	WHG 2	12
111	5004030	WHG 4	220		227	5043030	WHG 2	6.6
114	5005030	WHG 4	170		230	5044030	WHG 2	6.5
115	5006030	WHG 4	140		231	5045030	WHG 2	7.7
117	5007030	WHG 2	270		235	5046030	WHG 1	6.8
120	5008030	WHG 2	350		236	5047030	WHG 1	5.8
121	5009030	WHG 2	140		237	5048030	WHG 3	2
123	5010030	WHG 3	120		240	5049030	WHG 1	6.8
125	5011030	WHG 3	84		241	5050030	WHG 1	3
126	5012030	WHG 3	38		242	5051030	WHG 1	2.2
128	5013030	WHG 3	79		245	5052030	WHG 1	0.82
128	5013031	WHG 3	80		247	5054030	WHG 1	3.6
130	5014030	WHG 4	50		249	5055030	WHG 1	1.5
131	5015030	WHG 3	54		250	5056030	WHG 1	5.4
134	5016030	WHG 4	58		253	5057030	WHG 1	5.6
135	5017030	WHG 4	2.5		304	5058030	WHG 1	0.5
138	5018030	WHG 4	33		306	5060030	WHG 1	0.016
139	5019030	WHG 3	45		309	5061030	WHG 5	0.83
140	5020030	WHG 4	30		310	5062030	WHG 1	1.4
146	5021030	WHG 4	7.3		311	5063030	WHG 1	0.038
147	5022030	WHG 3	5.6		317	5064030	WHG 5	2
150	5023030	WHG 3	20		318	5065030	WHG 5	0.018
151	5024030	WHG 3	6.3		318	5065031	WHG 5	0.014
152	5025030	WHG 3	11		323	5066030	WHG 5	0.46
154	5026030	WHG 3	20		324	5067030	WHG 5	1
155	5027030	WHG 3	1.8		325	5078030	WHG 5	0.66
202	5028030	WHG 5	0.78		331	5071030	WHG 1	0.038
204	5029030	WHG 2	11		332	5072030	WHG 5	0.065
207	5030030	WHG 2	14		333	5073030	WHG 5	0.029
208	5031030	WHG 2	1.5		334	5074030	WHG 5	0.21
211	5032030	WHG 2	17		335	5075030	WHG 5	0.047
212	5033030	WHG 3	17		338	5076030	WHG 5	0.16
216	5034030	WHG 2	4.1		339	5077030	WHG 5	0.1
217	5035030	WHG 2	18		340	5078030	WHG 5	0.12
218	5036030	WHG 2	1.3		341	5079030	WHG 5	0.067
220	5037030	WHG 2	8.9		345	5081030	WHG 5	0.1
221	5038030	WHG 3	11		346	5082030	WHG 5	0.015
222	5039030	WHG 2	16		349	5083030	WHG 1	0.051
224	5040030	WHG 2	12		352	5080030	WHG 1	0.012

APPENDIX 5B

NOAA PCB CONGENERS NEW BEDFORD HARBOR LONG-TERM MONITORING III

Appendix 5B. NOAA PCB Congeners New Bedford Harbor Long-Term Monitoring III (ug/g).

Bottle ID	Station ID	24'	22'5	244'	22'35'	22'55'	23'44'	22'455'	233'44'	23'44'5	22'33'44'	22'344'5'	22'44'55'	22'33'44'5	22'344'55'	22'34'55'6	22'33'44'56	22'33'44'55'6	22'33'44'55'66'
5001030	105	36	66	77	13	70	18	14	0.45	11	0.42	5.1	14	0.96	1.4	1.9	0	0.27	0.083
5002030	108	15	32	38	14	47	8.5	16	1.1	13	0.9	7.7	14	1.0	1.7	2.4	0.2	0.22	0.051
5003030	109	20	40	48	16	65	19	12	0.68	8.8	0.9	7.7	15	1.2	1.9	3.0	0.27	0.28	0.057
5004030	111	24	44	47	10	45	13	10	0.39	7.6	0.47	4.4	9.8	0.77	1.2	1.5	0.13	0.19	0.031
5005030	114	9.1	22	32	12	34	6.3	14	1.2	11	0.9	7.1	12	1.1	1.7	2.0	0.2	0.17	0.047
5006030	115	5.2	12	28	10	36	3.6	9.0	1.2	7.5	1.1	7.0	9.5	1.1	1.6	2.0	0.23	0.27	0.067
5007030	117	29	47	56	19	60	5.0	17	1.2	9.4	1.2	7.2	16	1.4	2.0	2.1	0.26	0.3	0.068
5008030	120	38	60	75	30	57	23	21	2.8	15	1.4	6.9	15	1.2	1.7	1.6	0.2	0.2	0.048
5009030	121	7.2	20	30	7.4	32	3.0	11	0.92	6.8	0.89	5.2	7.7	0.96	1.4	1.5	0.21	0.27	0.07
5010030	123	7.8	14	27	8.4	27	8.2	7.5	0.91	6.2	0.79	4.8	6.8	0.78	1.2	1.2	0.14	0.15	0.032
5011030	125	3.1	7.7	15	6.2	15	4.8	7.9	1.2	7.1	0.74	4.8	6.7	0.71	1.1	1.2	0.13	0.16	0.054
5012030	126	2.0	4.0	7.0	2.7	7.4	1.7	3.2	0.42	2.7	0.32	2.0	3.0	0.3	0.46	0.51	0.048	0.068	0.023
5013031	128	3.1	7.1	15	6.0	14	5.0	7.3	1.2	6.7	0.79	4.5	6.2	0.64	0.99	1.0	0.12	0.12	0.04
5013030	128	3.0	7.0	14	6.0	14	5.6	7.4	1.2	6.8	0.76	4.5	6.3	0.65	1.0	1.0	0.1	0.11	0.029
5014030	130	1.7	3.8	8.4	3.4	7.7	3.8	5.5	0.9	5.2	0.52	3.1	4.3	0.44	0.68	0.62	0.06	0.073	0.019
5015030	131	2.2	4.8	9.5	4.3	9.3	3.0	5.1	0.83	4.7	0.54	3.1	4.2	0.44	0.72	0.65	0.067	0.09	0.032
5016030	134	1.7	4.2	9.2	4.2	9.0	4.6	6.2	1.2	6.1	0.66	3.9	5.0	0.53	0.81	0.78	0.09	0.093	0.032
5017030	135	0.073	0.16	0.49	0.14	0.47	0.13	0.28	0.047	0.28	0.028	0.15	0.18	0.024	0.035	0.032	0.0038	0.0039	0.0012
5018030	138	0.83	1.8	4.8	2.1	4.3	3.0	3.9	0.82	4.0	0.45	2.4	3.1	0.35	0.55	0.45	0.056	0.06	0.018
5019030	139	1.3	3.2	6.9	3.4	6.9	3.4	5.1	0.89	5.0	0.55	3.0	4.0	0.4	0.65	0.56	0.055	0.061	0.023
5020030	140	0.93	2.2	4.9	2.3	4.6	2.3	3.1	0.65	3.0	0.37	2.0	2.5	0.28	0.43	0.39	0.043	0.048	0.016
5021030	146	0.34	0.5	1.1	0.49	1.1	0.53	0.79	0.16	0.79	0.089	0.53	0.61	0.064	0.096	0.071	0.014	0.019	0.012
5022030	147	0.17	0.35	0.95	0.31	1.0	0.38	0.63	0.1	0.63	0.067	0.35	0.42	0.05	0.078	0.073	0.0091	0.0094	0.0023
5023030	150	0.53	1.1	3.3	1.6	3.0	2.1	2.3	0.46	2.3	0.24	1.2	1.3	0.18	0.26	0.21	0.025	0.022	0.0057
5024030	151	0.18	0.38	1.1	0.37	1.1	0.43	0.72	0.13	0.71	0.08	0.4	0.47	0.061	0.094	0.08	0.0095	0.0097	0.0027
5025030	152	0.38	0.82	1.8	0.82	1.8	0.82	1.2	0.23	1.2	0.14	0.75	1.0	0.11	0.16	0.16	0.018	0.018	0.0051
5026030	154	0.49	1.6	3.5	1.5	3.3	1.7	2.2	0.4	2.1	0.22	1.3	1.6	0.16	0.23	0.2	0.026	0.024	0.0063
5027030	155	0.044	0.12	0.29	0.13	0.28	0.16	0.19	0.043	0.19	0.022	0.12	0.15	0.017	0.024	0.025	0.0028	0.003	0.00074
5028030	202	0.018	0.052	0.12	0.058	0.12	0.062	0.086	0.016	0.082	0.0094	0.053	0.071	0.0068	0.011	0.0099	0.0011	0.0012	0.00046
5029030	204	0.24	0.41	1.1	0.68	1.3	0.81	1.5	0.5	1.6	0.26	1.2	1.0	0.15	0.21	0.12	0.019	0.016	0.0085
5030030	207	0.25	0.55	1.9	0.69	1.8	1.4	1.7	0.46	1.8	0.24	1.2	1.3	0.17	0.23	0.18	0.025	0.026	0.0069
5031030	208	0.029	0.068	0.19	0.082	0.18	0.14	0.18	0.052	0.2	0.03	0.14	0.16	0.019	0.027	0.023	0.0032	0.0032	0.001
5032030	211	0.33	0.78	2.3	1.0	2.2	1.6	2.1	0.58	2.2	0.31	1.5	1.5	0.22	0.31	0.24	0.034	0.031	0.01
5033030	212	0.28	0.63	2.2	0.89	1.9	1.5	2.0	0.73	2.3	0.38	1.6	1.5	0.24	0.33	0.22	0.039	0.032	0.012
5034030	216	0.079	0.16	0.47	0.24	0.44	0.39	0.48	0.17	0.56	0.09	0.42	0.4	0.058	0.083	0.066	0.0094	0.0087	0.0028
5035030	217	0.31	0.68	2.1	1.0	1.7	1.8	2.3	0.93	2.6	0.47	2.0	1.6	0.28	0.4	0.25	0.043	0.04	0.013
5036030	218	0.017	0.049	0.17	0.054	0.15	0.13	0.16	0.045	0.18	0.024	0.13	0.14	0.014	0.019	0.017	0.0026	0.0024	0.00079
5037030	220	0.3	0.5	1.2	0.54	0.98	0.99	1.0	0.41	1.1	0.19	0.75	0.6	0.11	0.14	0.095	0.016	0.014	0.0048
5038030	221	0.17	0.31	1.4	0.42	1.1	1.2	1.3	0.41	1.5	0.21	1.1	1.1	0.13	0.19	0.14	0.024	0.02	0.0057
5039030	222	0.26	0.56	1.8	0.74	1.8	1.3	2	0.8	2.3	0.45	1.9	1.6	0.24	0.34	0.2	0.04	0.03	0.0093
5040030	224	0.24	0.45	1.5	0.64	1.4	1.2	1.5	0.54	1.7	0.26	1.2	1.1	0.18	0.24	0.18	0.028	0.025	0.008
5041030	225	0.2	0.32	0.93	0.45	0.78	0.7	1.1	0.39	1.3	0.2	0.82	0.74	0.11	0.15	0.12	0.016	0.012	0.004
5041030	225	0.2	0.32	0.93	0.45	0.78	0.7	1.1	0.39	1.3	0.2	0.82	0.74	0.11	0.15	0.12	0.016	0.012	0.004
5042030	226	0.23	0.38	1.4	0.5	1.0	1.2	1.2	0.58	1.8	0.28	1.2	1.1	0.15	0.21	0.16	0.025	0.019	0.0059
5042031	226	0.25	0.4	1.7	0.58	1.1	1.2	1.5	0.66	1.9	0.32	1.2	1.1	0.16	0.23	0.16	0.026	0.018	0.0066
5043030	227	0.13	0.23	0.9	0.33	0.57	0.64	0.82	0.31	0.99	0.16	0.64	0.56	0.083	0.12	0.087	0.014	0.0096	0.0037
5044030	230	0.1	0.2	0.54	0.29	0.63	0.44	0.92	0.37	1.0	0.19	0.85	0.65	0.098	0.14	0.089	0.014	0.01	0.0039

Bottle ID	Station ID	24'	225	24'	225	225	225	225	225	225	225	225	225	225	225	225	225	225	225
5045030	231	0.23	0.32	0.87	0.41	0.75	0.61	0.86	0.38	1.2	0.19	0.8	0.69	0.1	0.15	0.11	0.016	0.011	0.0038
5045030	231	0.23	0.32	0.87	0.41	0.75	0.61	0.86	0.38	1.2	0.19	0.8	0.69	0.1	0.15	0.11	0.016	0.011	0.0038
5046030	235	0.22	0.31	0.82	0.37	0.67	0.56	0.77	0.32	0.94	0.18	0.72	0.62	0.096	0.13	0.1	0.015	0.012	0.0047
5047030	236	0.24	0.28	0.7	0.31	0.57	0.5	0.63	0.29	0.78	0.15	0.59	0.5	0.076	0.1	0.079	0.012	0.01	0.003
5048030	237	0.04	0.063	0.16	0.094	0.17	0.11	0.25	0.14	0.32	0.071	0.26	0.2	0.032	0.047	0.035	0.0051	0.0039	0.0029
5049030	240	0.24	0.32	0.8	0.37	0.69	0.56	0.76	0.31	0.93	0.18	0.7	0.61	0.088	0.12	0.091	0.012	0.01	0.0033
5050030	241	0.095	0.11	0.35	0.12	0.31	0.25	0.34	0.13	0.42	0.073	0.35	0.3	0.036	0.05	0.034	0.0055	0.004	0.0018
5051030	242	0.095	0.11	0.27	0.12	0.22	0.2	0.24	0.11	0.29	0.057	0.22	0.19	0.027	0.038	0.03	0.0039	0.0031	0.001
5052030	245	0.022	0.041	0.12	0.042	0.086	0.071	0.094	0.034	0.11	0.017	0.078	0.074	0.0089	0.012	0.011	0.0014	0.0011	0.00051
5054030	247	0.14	0.16	0.5	0.16	0.32	0.36	0.36	0.17	0.56	0.082	0.34	0.31	0.038	0.06	0.048	0.0093	0.005	0.0018
5055030	249	0.034	0.051	0.2	0.061	0.17	0.12	0.19	0.07	0.25	0.032	0.13	0.12	0.014	0.021	0.016	0.0024	0.0014	0.00084
5056030	250	0.32	0.31	0.71	0.2	0.55	0.5	0.55	0.25	0.7	0.098	0.52	0.47	0.048	0.065	0.048	0.0074	0.006	0.0015
5057030	253	0.19	0.23	0.84	0.27	0.45	0.5	0.74	0.3	0.86	0.13	0.51	0.4	0.06	0.083	0.053	0.0089	0.0057	0.0022
5058030	304	0.044	0.04	0.084	0.024	0.048	0.044	0.043	0.018	0.054	0.0095	0.038	0.033	0.0046	0.0065	0.0046	0.0007	0.0006	0.00024
5060030	306	0.00018	0.011	0.0011	0.00019	0.00032	0.00032	0.00063	0.00012	0.00068	0.00011	0.00054	0.00063	0.000049	0.000072	0.000067	0.0000035	0.000021	0.0000046
5061030	309	0.021	0.02	0.08	0.032	0.056	0.072	0.093	0.048	0.13	0.029	0.11	0.09	0.014	0.02	0.014	0.0019	0.0026	0.00092
5062030	310	0.085	0.088	0.17	0.083	0.15	0.11	0.14	0.078	0.17	0.038	0.14	0.1	0.018	0.023	0.014	0.0021	0.0017	0.00066
5063030	311	0.00078	0.0018	0.0038	0.0018	0.0035	0.003	0.0046	0.0016	0.0055	0.0011	0.0045	0.0042	0.00047	0.00068	0.00061	0.000082	0.00012	0.000027
5064030	317	0.063	0.064	0.18	0.1	0.17	0.15	0.21	0.13	0.32	0.068	0.26	0.19	0.032	0.046	0.029	0.0044	0.0039	0.0014
5065030	318	0.00036	0.00044	0.0017	0.001	0.0017	0.0013	0.0023	0.00073	0.0026	0.00052	0.0024	0.0024	0.00026	0.00036	0.00034	0.000039	0.000063	0.000013
5065031	318 Dup	0.00024	0.00031	0.0019	0.00051	0.0012	0.00098	0.0018	0.00054	0.002	0.0004	0.0018	0.0019	0.00018	0.00029	0.00025	0.00003	0.000062	0.000009
5066030	323	0.013	0.011	0.041	0.021	0.033	0.04	0.058	0.023	0.071	0.015	0.058	0.049	0.0074	0.01	0.0074	0.001	0.0012	0.00086
5067030	324	0.034	0.032	0.095	0.05	0.085	0.079	0.11	0.059	0.17	0.034	0.13	0.1	0.02	0.025	0.016	0.0024	0.0024	0.00085
5068030	325	0.017	0.017	0.056	0.032	0.05	0.052	0.079	0.038	0.099	0.023	0.088	0.069	0.012	0.015	0.01	0.0018	0.0013	0.00078
5071030	331	0.016	0.013	0.053	0.021	0.038	0.046	0.065	0.027	0.086	0.02	0.068	0.055	0.0086	0.01	0.0082	0.0012	0.0023	0.00083
5072030	332	0.0019	0.0016	0.0055	0.0026	0.0045	0.0055	0.0076	0.0032	0.0098	0.0022	0.0087	0.0073	0.0012	0.0016	0.0012	0.00016	0.0002	0.00012
5073030	333	0.00082	0.00084	0.0029	0.00094	0.002	0.0021	0.0041	0.0011	0.004	0.00094	0.0038	0.0037	0.00047	0.00066	0.00052	0.00007	0.00011	0.0000033
5074030	334	0.006	0.0052	0.016	0.0082	0.012	0.017	0.027	0.01	0.034	0.0075	0.032	0.021	0.0036	0.0048	0.0037	0.00055	0.00059	0.00042
5075030	335	0.0014	0.0009	0.0056	0.0018	0.003	0.0036	0.0058	0.0019	0.0069	0.0016	0.006	0.0054	0.00069	0.00091	0.00081	0.00014	0.00015	0.00011
5076030	338	0.0053	0.0052	0.015	0.0062	0.011	0.013	0.018	0.0079	0.024	0.006	0.022	0.018	0.003	0.0037	0.0031	0.0004	0.00046	0.00036
5077030	339	0.0035	0.0048	0.0092	0.004	0.007	0.0083	0.012	0.0051	0.015	0.0038	0.014	0.012	0.0018	0.0023	0.002	0.00027	0.00031	0.00023
5078030	340	0.0038	0.0037	0.0099	0.0047	0.0075	0.0094	0.014	0.0059	0.017	0.0046	0.016	0.014	0.0021	0.0028	0.0022	0.00034	0.00041	0.00026
5079030	341	0.0024	0.0016	0.0071	0.0024	0.0037	0.008	0.0074	0.003	0.0096	0.0023	0.0085	0.0072	0.001	0.0013	0.0012	0.00016	0.0002	0.00016
5081030	345	0.0038	0.0031	0.0091	0.0041	0.0069	0.0083	0.012	0.0049	0.016	0.0041	0.014	0.012	0.0017	0.0024	0.002	0.00029	0.00042	0.00028
5082030	346	0.00041	0.00036	0.0027	0.00052	0.00074	0.0011	0.0018	0.00057	0.002	0.00044	0.0018	0.0017	0.00023	0.00028	0.00022	0.000035	0.000079	0.000031
5083030	349	0.002	0.0014	0.0068	0.0019	0.0031	0.0046	0.0058	0.0022	0.0072	0.0019	0.0067	0.005	0.00073	0.00084	0.00073	0.000098	0.00018	0.000078
5080030	352	0.00044	0.0011	0.0016	0.00021	0.00056	0.00081	0.0014	0.00056	0.0016	0.00031	0.0013	0.0012	0.00016	0.00019	0.00014	0.000022	0.000056	0.00003

APPENDIX 6

INORGANICS NEW BEDFORD LONG-TERM MONITORING III

Appendix 6. Inorganics New Bedford Long-Term Monitoring III

Station ID	Bottle ID Inorganic	Workbook ID	Arsenic*	Cadmium*	Chromium*	Copper*	Lead*	Mercury*	Nickel*	Selenium*	Zinc*
105	5001036	WHG 4	4.5	8.3	280	518	305	0.75	30.9	0.053	854
108	5002036	WHG 5	8.9	8.9	395	863	503	1.3	46.5	0.18	1090
109	5003036	WHG 5	4.6	5.6	325	606	271	0.59	36.3	0.063	594
111	5004036	WHG 4	5.6	19.0	453	659	314	1.1	47.8	0.069	1030
114	5005036	WHG 4	9.1	11.2	483	895	449	1.3	52.5	0.12	959
115	5006036	WHG 4	6.7	7.5	484	827	329	1.1	50.1	0.12	783
117	5007036	WHG 2	8.6	16.8	562	991	395	1.2	53.6	0.082	1090
120	5008036	WHG 2	8.0	15.8	553	932	326	1.3	45.2	0.077	904
121	5009036	WHG 2	7.4	13.8	512	891	267	1.1	35.9	0.083	781
123	5010036	WHG 3	8.8	21.9	711	1180	361	0.87	55.8	0.064	1000
125	5011036	WHG 3	10.8	11.7	603	1260	451	1.0	53.2	0.30	973
126	5012036	WHG 3	4.6	5.6	277	540	172	0.46	22.6	0.13	396
128	5013036	WHG 3	10.0	14.2	655	1300	397	0.99	56.2	0.31	1030
128	5013037	WHG 3	10.0	14.6	630	1240	377	0.92	57.1	0.11	1040
130	5014036	WHG 4	8.2	16.5	547	982	416	1.5	115	0.14	1340
131	5015036	WHG 3	8.4	13.1	526	1060	254	0.83	32.9	0.058	701.0
134	5016036	WHG 4	10.5	12.7	604	1150	366	1.2	64.0	0.14	979
135	5017036	WHG 4	0.82	0.47	28.4	73.9	25.4	0.068	4.3	0.025	55.1
138	5018036	WHG 4	7.9	10.7	579	1070	325	1.3	45.0	0.15	700
139	5019036	WHG 3	8.4	12.9	622	1210	322	1.3	54.9	0.15	792
140	5020036	WHG 4	8.5	9.4	533	986	269	0.67	37.6	0.077	634
146	5021036	WHG 4	5.0	2.2	140	486	164	0.66	13.5	0.044	484
147	5022036	WHG 3	1.3	0.80	56.8	190	46.2	0.17	6.1	0.028	96.1
150	5023036	WHG 3	5.3	6.3	316	639	228	0.95	29.8	0.084	436
151	5024036	WHG 3	2.6	1.6	103	272	311	0.26	9.3	0.036	186
152	5025036	WHG 3	3.3	2.3	140	316	110	0.28	14.6	0.076	230
154	5026036	WHG 3	5.4	5.4	261	539	165	0.45	22.6	0.042	376

Appendix 6. Inorganics New Bedford Long-Term Monitoring III

Station ID	Bottle ID Inorganic	Workbook ID	Arsenic*	Cadmium*	Chromium*	Copper*	Lead*	Mercury*	Nickel*	Selenium*	Zinc*
155	5027036	WHG 3	0.74	0.44	22.0	99.2	21.7	0.080	3.1	0.024	48.9
202	5028036	WHG 5	0.80	0.15	10.0	17.0	9.4	0.016	2.8	0.023	22.7
204	5029036	WHG 2	5.5	3.8	212	786	119	0.57	15.0	0.045	424
207	5030036	WHG 2	9.9	3.0	366	5060	199	0.86	120	0.080	1310
208	5031036	WHG 2	1.1	0.31	40.5	144	29.2	0.12	3.9	0.029	60.5
211	5032036	WHG 2	10.8	3.3	447	1040	224	1.1	24.1	0.060	470
212	5033036	WHG 3	8.5	2.2	552	1240	236	1.2	25.8	0.14	418
216	5034036	WHG 2	5.2	1.3	134	309	76.9	0.38	8.1	0.040	202
217	5035036	WHG 2	9.6	3.0	707	1410	272	1.2	28.3	0.056	458
218	5036036	WHG 2	1.4	0.26	39.8	126	91.4	0.18	3.6	0.023	55.5
220	5037036	WHG 2	5.6	3.4	211	443	101	0.51	12.3	0.042	254
221	5038036	WHG 3	8.8	2.1	342	743	220	0.54	24.6	0.21	400
222	5039036	WHG 2	12.8	3.5	292	693	228	0.76	19.8	0.080	537
224	5040036	WHG 2	11.3	2.7	243	544	172	0.68	17.3	0.076	407
225	5041036	WHG 2	16.5	3.5	453	1040	269	1.1	26.5	0.15	651
226	5042036	WHG 2	12.9	3.5	449	956	390	1.0	24.2	0.11	1310
227	5043036	WHG 2	8.2	1.8	186	467	122	0.63	12.4	0.056	335
230	5044036	WHG 2	7.8	2.1	141	477	132	0.49	13.5	0.046	472
231	5045036	WHG 2	10.8	2.4	244	558	161	0.56	20.3	0.10	428
235	5046036	WHG 1	9.9	2.2	185	418	151	0.66	19.2	0.12	412
236	5047036	WHG 1	7.5	1.4	126	269	98.0	0.36	13.9	0.11	270
237	5048036	WHG 3	3.1	0.41	32.9	147	101	0.77	13.4	0.029	215
240	5049036	WHG 1	8.9	1.8	141	312	117	0.41	15.9	0.14	318
241	5050036	WHG 1	7.3	1.2	99.4	219	82.5	0.31	12.6	0.059	252
242	5051036	WHG 1	3.4	0.64	50.3	125	43.3	0.19	5.4	0.034	134
245	5052036	WHG 1	2.0	0.22	17.3	44.2	19.3	0.087	3.2	0.028	50.1
247	5054036	WHG 1	5.7	1.2	126	295	97.7	0.50	12.0	0.091	264
249	5055036	WHG 1	2.3	0.44	37.8	101	40.4	0.16	4.3	0.039	103
250	5056036	WHG 1	8.9	1.7	124	252	114	0.32	16.1	0.14	344

Appendix 6. Inorganics New Bedford Long-Term Monitoring III

Station ID	Bottle ID Inorganic	Workbook ID	Arsenic*	Cadmium*	Chromium*	Copper*	Lead*	Mercury*	Nickel*	Selenium*	Zinc*
253	5057036	WHG 1	5.2	2.8	137	281	90.3	0.33	12.9	0.070	236
304	5058036	WHG 1	1.3	0.24	13.2	30.6	15.3	0.079	2.3	0.026	43.7
306	5060036	WHG 1	0.39	0.040	2.3	2.2	2.6	0.0070	0.89	0.024	5.5
309	5061036	WHG 5	5.1	1.0	46.2	56.7	72.4	0.13	10.8	0.093	123
310	5062036	WHG 1	2.6	0.49	24.0	42.0	21.0	0.11	4.0	0.028	55.4
311	5063036	WHG 1	0.96	0.064	4.5	4.2	5.4	0.020	1.3	0.024	15.3
317	5064036	WHG 5	6.1	1.0	67.5	77.1	51.9	0.12	11.5	0.052	109
318	5065036	WHG 5	0.55	0.042	2.7	1.6	3.8	0.0085	0.90	0.023	6.3
318	5065037	WHG 5	0.58	0.040	2.7	1.4	3.7	0.0077	0.79	0.024	5.8
323	5066036	WHG 5	3.6	0.33	26.9	22.9	25.1	0.064	7.0	0.033	52.8
324	5067036	WHG 5	4.6	0.58	43.7	38.7	34.3	0.094	9.0	0.051	69.9
325	5068036	WHG 5	5.5	0.37	38.6	34.2	31.3	0.087	9.8	0.068	64.3
331	5071036	WHG 1	4.8	0.25	34.9	28.0	28.0	0.13	10.7	0.077	68.1
332	5072036	WHG 5	1.4	0.048	8.2	5.0	7.6	0.022	3.1	0.025	17.7
333	5073036	WHG 5	2.0	0.042	3.8	2.4	4.8	0.0090	1.8	0.022	13.1
334	5074036	WHG 5	4.4	0.14	25.7	17.3	20.9	0.050	8.5	0.035	49.6
335	5075036	WHG 5	1.0	0.042	5.8	3.4	6.8	0.012	2.3	0.024	14.8
338	5076036	WHG 5	4.5	0.13	26.6	14.3	19.5	0.035	9.6	0.046	51.5
339	5077036	WHG 5	4.3	0.10	19.1	10.0	14.6	0.026	7.6	0.036	39.5
340	5078036	WHG 5	5.1	0.085	20.4	10.2	16.1	0.030	8.8	0.048	42.2
341	5079036	WHG 5	2.2	0.044	12.8	6.7	10.9	0.018	4.7	0.032	27.6
345	5081036	WHG 5	4.5	0.10	21.5	10.7	15.6	0.029	8.4	0.045	44.2
346	5082036	WHG 5	1.9	0.022	5.9	1.9	4.6	0.0045	2.1	0.024	19.6
349	5083036	WHG 1	2.4	0.099	14.0	7.7	10.0	0.026	5.8	0.044	34.0
352	5085036	WHG 1	1.2	0.023	3.4	1.8	3.3	0.0081	1.7	0.021	10.7

*ug/g dry wt.

APPENDIX 7

ACID VOLATILE SULFIDES (AVS) NEW BEDFORD LONG-TERM MONITORING III

Appendix 7. Acid Volatile Sulfides (AVS) New Bedford Long-Term Monitoring III

Station ID	Bottle ID AVS	Workbook ID	AVS umol/g dry wt.	Station ID	Bottle ID AVS	Workbook ID	AVS umol/g dry wt.
105	5001033	WHG 4	30	225	5041033	WHG 2	27
108	5002033	WHG 5	43	226	5042033	WHG 2	62
109	5003033	WHG 5	22	226	5042034	WHG 2	37
111	5004033	WHG 4	32	227	5043033	WHG 2	42
114	5005033	WHG 4	48	230	5044033	WHG 2	24
115	5006033	WHG 4	34	231	5045033	WHG 2	?
117	5007033	WHG 2	12	235	5046033	WHG 1	67
120	5008033	WHG 2	28	236	5047033	WHG 1	63
121	5009033	WHG 2	5.4	237	5048033	WHG 3	7
123	5010033	WHG 3	54	240	5049033	WHG 1	72
125	5011033	WHG 3	73	241	5050033	WHG 1	13
126	5012033	WHG 3	28	242	5051033	WHG 1	13
128	5013034	WHG 3	67	245	5052033	WHG 1	3
128	5013033	WHG 3	62	247	5054033	WHG 1	50
130	5014033	WHG 4	75	249	5055033	WHG 1	17
131	5015033	WHG 3	34	250	5056033	WHG 1	60
134	5016033	WHG 4	51	253	5057033	WHG 1	19
135	5017033	WHG 4	1.8	304	5058033	WHG 1	20
138	5018033	WHG 4	51	306	5060033	WHG 1	0.4
139	5019033	WHG 3	38	309	5061033	WHG 5	33
140	5020033	WHG 4	39	310	5062033	WHG 1	15
146	5021033	WHG 4	18	311	5063033	WHG 1	3.7
147	5022033	WHG 3	7.8	317	5064033	WHG 5	5.6
150	5023033	WHG 3	25	318	5065033	WHG 5	0.56
151	5024033	WHG 3	6	318	5065034	WHG 5	0.15
152	5025033	WHG 3	15	323	5066033	WHG 5	11
154	5026033	WHG 3	42	324	5067033	WHG 5	26
155	5027033	WHG 3	3	325	5068033	WHG 5	4.2
202	5028033	WHG 5	0.7	331	5071033	WHG 1	4.8
204	5029033	WHG 2	10	332	5072033	WHG 5	2.7
207	5030033	WHG 2	35	333	5073033	WHG 5	3.1
208	5031033	WHG 2	3.2	334	5074033	WHG 5	2
211	5032033	WHG 2	58	335	5075033	WHG 5	2.6
212	5033033	WHG 3	34	338	5076033	WHG 5	1.8
216	5034033	WHG 2	36	339	5077033	WHG 5	0.27
217	5035033	WHG 2	20	340	5078033	WHG 5	0.28
218	5036036	WHG 2	4.2	341	5079033	WHG 5	0.78
220	5037033	WHG 2	7.8	345	5081033	WHG 5	1.5
221	5038033	WHG 3	46	346	5082033	WHG 5	0.54
222	5039033	WHG 2	42	349	5083033	WHG 1	4.3
224	5040033	WHG 2	100	352	5085033	WHG 1	<0.25

APPENDIX 8

TOXICITY TESTING RESULTS: NEW BEDFORD HARBOR LONG-TERM MONITORING PROGRAM. LONG-TERM MONITORING III (AMPELISCA ABDITA 10-DAY SEDIMENT TOXICITY TEST RESULTS)

Appendix 8. New Bedford Harbor Long-Term Monitoring Program.
Fall 1999 Sampling Season (Ampelisca abdita 10-day Sediment Toxicity Test Results)

STATION	ENSR Field #	Date Collected	Test Started	Days Held	# Reps	Mortality	Mortality Std Dev	Mean Survival	Mean Survival (% of Control)	Mortality Statistically Differ from Control?	P Value	ESI Sample ID Number	Test Series Number
INNER HARBOR (SEGMENT 1) RESULTS													
NB99-105	5001024	10/05/99	10/26/99	21	5	100%	0.000	0%	0%	Yes	0.000	8141 -48	Series 4
NB99-108	5002024	10/06/99	10/29/99	23	5	100%	0.000	0%	0%	Yes	0.000	8141 -66	Series 5
NB99-109	5003024	10/06/99	10/29/99	23	5	100%	0.000	0%	0%	Yes	0.000	8141 -65	Series 5
NB99-111	5004024	10/05/99	10/26/99	21	5	100%	0.000	0%	0%	Yes	0.000	8141 -49	Series 4
NB99-114	5005024	10/01/99	10/26/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -55	Series 4
NB99-115	5006024	10/05/99	10/26/99	21	5	100%	0.000	0%	0%	Yes	0.000	8141 -50	Series 4
NB99-117	5007024	11/18/99	11/23/99	5	5	100%	0.000	0%	0%	Yes	0.000	8141 -78	Series 6
NB99-120	5008024	11/18/99	11/23/99	5	5	100%	0.000	0%	0%	Yes	0.000	8141 -79	Series 6
NB99-121	5009024	11/18/99	11/23/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -80	Series 6
NB99-123	5010024	09/29/99	10/24/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -45	Series 3
NB99-125	5011024	09/29/99	10/24/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -43	Series 3
NB99-126	5012024	09/29/99	10/24/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -46	Series 3
NB99-128	5013024	09/29/99	10/24/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -44	Series 3
NB99-130	5014024	10/01/99	10/26/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -53	Series 4
NB99-131	5015024	09/29/99	10/24/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -42	Series 3
NB99-134	5016024	10/01/99	10/26/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -52	Series 4
NB99-135	5017024	10/01/99	10/26/99	25	5	75%	2.898	25%	27%	Yes	0.000	8141 -56	Series 4
NB99-138	5018024	10/05/99	10/26/99	21	5	100%	0.000	0%	0%	Yes	0.000	8141 -51	Series 4
NB99-139	5019024	09/29/99	10/24/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -47	Series 3
NB99-140	5020024	10/01/99	10/26/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -54	Series 4
NB99-146	5021024	10/01/99	10/26/99	25	5	100%	0.000	0%	0%	Yes	0.000	8141 -57	Series 4
NB99-147	5022024	09/28/99	10/24/99	26	5	93%	1.356	7%	8%	Yes	0.000	8141 -36	Series 3
NB99-150	5023024	09/28/99	10/24/99	26	5	100%	0.000	0%	0%	Yes	0.000	8141 -37	Series 3
NB99-151	5024024	09/28/99	10/24/99	26	5	100%	0.000	0%	0%	Yes	0.000	8141 -38	Series 3
NB99-152	5025024	09/28/99	10/24/99	26	5	83%	2.059	17%	19%	Yes	0.000	8141 -39	Series 3
NB99-154	5026024	09/28/99	10/24/99	26	5	100%	0.000	0%	0%	Yes	0.000	8141 -40	Series 3
NB99-155	5027024	09/28/99	10/24/99	26	5	99%	0.400	1%	1%	Yes	0.000	8141 -41	Series 3

Appendix 8. New Bedford Harbor Long-Term Monitoring Program.
Fall 1999 Sampling Season (Ampelisca abdita 10-day Sediment Toxicity Test Results)

STATION	ENSR Field #	Date Collected	Test Started	Days Held	# Reps	Mortality	Mortality Std Dev	Mean Survival	Mean Survival (% of Control)	Mortality - Statistically Differ. from Control?	P Value	ESI Sample ID Number	Test Series Number
MIDDLE HARBOR (SEGMENT 2) RESULTS													
NB99-202	5028024	10/06/99	10/29/99	23	5	41%	2.135	59%	64%	Yes	0.002	8141 -67	Series 5
NB99-204	5029024	09/22/99	10/09/99	17	5	100%	0.000	0%	0%	Yes	0.000	8141 -23	Series 2
NB99-207	5030024	09/22/99	10/09/99	17	5	100%	0.000	0%	0%	Yes	0.000	8141 -27	Series 2
NB99-208	5031024	09/23/99	10/09/99	16	5	42%	1.200	58%	63%	Yes	0.000	8141 -30	Series 2
NB99-211	5032024	09/22/99	10/09/99	17	5	88%	1.497	12%	13%	Yes	0.000	8141 -26	Series 2
NB99-212	5033024	09/24/99	10/09/99	15	5	90%	1.673	10%	11%	Yes	0.000	8141 -33	Series 2
NB99-216	5034024	09/22/99	10/09/99	17	5	57%	4.923	43%	47%	Yes	0.002	8141 -24	Series 2
NB99-217	5035024	09/23/99	10/09/99	16	5	96%	1.166	4%	4%	Yes	0.000	8141 -31	Series 2
NB99-218	5036024	10/27/99	11/23/99	27	5	88%	2.332	12%	13%	Yes	0.000	8141 -77	Series 6
NB99-220	5037024	09/22/99	10/09/99	17	5	97%	1.200	3%	3%	Yes	0.000	8141 -25	Series 2
NB99-221	5038024	09/24/99	10/24/99	30	5	47%	4.409	53%	58%	Yes	0.004	8141 -34	Series 3
NB99-222	5039024	09/23/99	10/09/99	16	5	99%	0.400	1%	1%	Yes	0.000	8141 -32	Series 2
NB99-224	5040024	09/22/99	10/09/99	17	5	65%	3.033	35%	38%	Yes	0.000	8141 -22	Series 2
NB99-225	5041024	09/21/99	10/09/99	18	5	74%	1.939	26%	28%	Yes	0.000	8141 -18	Series 2
NB99-226	5042025	09/21/99	10/09/99	18	5	22%	1.960	78%	85%	Yes	0.017	8141 -20	Series 2
NB99-226	5042024	09/21/99	10/09/99	18	5	52%	4.630	48%	52%	Yes	0.002	8141 -19	Series 2
NB99-227	5043024	09/21/99	10/09/99	18	5	67%	2.939	33%	36%	Yes	0.000	8141 -21	Series 2
NB99-230	5044024	09/21/99	10/09/99	18	5	100%	0.000	0%	0%	Yes	0.000	8141 -28	Series 2
NB99-231	5045024	09/21/99	10/09/99	18	5	39%	3.187	61%	66%	Yes	0.004	8141 -29	Series 2
NB99-235	5046024	09/20/99	10/08/99	18	5	55%	4.604	45%	48%	Yes	0.002	8141 -8	Series 1
NB99-236	5047024	09/20/99	10/08/99	18	5	52%	2.800	48%	51%	Yes	0.000	8141 -9	Series 1
NB99-237	5048024	09/24/99	10/24/99	30	5	99%	0.400	1%	1%	Yes	0.000	8141 -35	Series 3
NB99-240	5049024	09/20/99	10/08/99	18	5	69%	4.020	31%	33%	Yes	0.000	8141 -10	Series 1
NB99-241	5050024	09/20/99	10/08/99	18	5	59%	3.250	41%	44%	Yes	0.000	8141 -11	Series 1
NB99-242	5051024	09/20/99	10/08/99	18	5	50%	3.406	50%	53%	Yes	0.001	8141 -12	Series 1
NB99-245	5052024	09/19/99	10/08/99	19	5	66%	5.980	34%	36%	Yes	0.002	8141 -13	Series 1
NB99-247	5054024	09/19/99	10/08/99	19	5	32%	2.577	68%	72%	Yes	0.002	8141 -14	Series 1
NB99-249	5055024	09/19/99	10/08/99	19	5	42%	4.673	58%	62%	Yes	0.005	8141 -15	Series 1
NB99-250	5056024	09/19/99	10/08/99	19	5	42%	4.363	58%	62%	Yes	0.003	8141 -16	Series 1
NB99-253	5057024	09/20/99	10/09/99	19	5	70%	1.897	30%	33%	Yes	0.000	8141 -17	Series 2

Appendix 8. New Bedford Harbor Long-Term Monitoring Program.
Fall 1999 Sampling Season (Ampelisca abdita 10-day Sediment Toxicity Test Results)

STATION	ENSR Field #	Date Collected	Test Started	Days Held	# Reps	Mortality	Mortality Std Dev	Mean Survival	Mean Survival (% of Control)	Mortality - Statistically Differ. from Control?	P Value	ESI Sample ID Number	Test Series Number
OUTER HARBOR (SEGMENT 3) RESULTS													
NB99-304	500058024	09/14/99	10/08/99	24	5	47%	3.382	53%	56%	Yes	0.001	8141 -1	Series 1
NB99-306	500060024	09/14/99	10/08/99	24	5	76%	6.177	24%	26%	Yes	0.001	8141 -2	Series 1
NB99-309	5061024	10/07/99	10/29/99	22	5	10%	1.414	90%	98%	No	0.368	8141 -68	Series 5
NB99-310	500062024	09/14/99	10/08/99	25	5	53%	6.560	47%	50%	Yes	0.008	8141 -3	Series 1
NB99-311	500063024	09/14/99	10/08/99	25	5	33%	2.498	67%	71%	Yes	0.002	8141 -4	Series 1
NB99-317	5064024	10/07/99	10/29/99	22	5	12%	1.356	88%	96%	No	0.211	8141 -71	Series 5
NB99-318	5065024	10/10/99	10/26/99	16	5	39%	4.214	61%	67%	Yes	0.006	8141 -58	Series 4
NB99-323	5066024	10/07/99	10/29/99	22	5	25%	1.897	75%	82%	Yes	0.003	8141 -69	Series 5
NB99-324	5067024	10/07/99	10/29/99	22	5	13%	2.154	87%	95%	No	0.258	8141 -70	Series 5
NB99-325	5068024	10/10/99	10/26/99	16	5	25%	3.633	75%	82%	Yes	0.043	8141 -59	Series 4
NB99-331	500071024	09/15/99	10/08/99	23	5	35%	2.280	65%	69%	Yes	0.003	8141 -5	Series 1
NB99-332	5072024	10/07/99	10/29/99	22	5	16%	3.868	84%	91%	No	0.305	8141 -75	Series 5
NB99-333	5073024	10/08/99	10/29/99	21	5	19%	1.833	81%	88%	Yes	0.023	8141 -73	Series 5
NB99-334	5074024	10/08/99	10/29/99	21	5	16%	2.135	84%	91%	No	0.132	8141 -64	Series 5
NB99-335	5075024	10/08/99	10/26/99	18	5	16%	2.561	84%	92%	No	0.795	8141 -60	Series 4
NB99-338	5076024	10/07/99	10/29/99	22	5	15%	2.966	85%	92%	No	0.267	8141 -76	Series 5
NB99-339	5077024	10/07/99	10/26/99	19	5	26%	5.879	74%	81%	No	0.946	8141 -62	Series 4
NB99-340	5078024	10/08/99	10/29/99	21	5	10%	1.549	90%	98%	No	0.360	8141 -74	Series 5
NB99-341	5079024	10/08/99	10/26/99	18	5	21%	0.980	79%	87%	Yes	0.002	8141 -61	Series 4
NB99-345	5081024	10/07/99	10/29/99	22	5	11%	1.166	89%	97%	No	0.812	8141 -63	Series 5
NB99-346	5082024	10/08/99	10/29/99	21	5	11%	1.327	89%	97%	No	0.643	8141 -72	Series 5
NB99-349	500083024	09/15/99	10/08/99	23	5	17%	1.497	83%	88%	Yes	0.020	8141 -6	Series 1
NB99-352	500085024	09/15/99	10/08/99	23	5	34%	0.980	66%	70%	Yes	0.000	8141 -7	Series 1
Reference Sediment Samples from Central Long Island Sound													
CLIS -1					5	6%	1.166	94%					
CLIS -2					5	8%	0.800	92%					
CLIS -3					5	9%	1.327	91%					
CLIS -4					5	9%	0.748	91%					
CLIS -5					5	8%	0.800	92%					
CLIS -6					5	4%	1.166	96%					

APPENDIX 9

SPECIES IDENTIFIED FROM THE 1999 NEW BEDFORD HARBOR SAMPLES

APPENDIX 9
SPECIES IDENTIFIED FROM THE 1999 NEW BEDFORD HARBOR SAMPLES (SUPERSCRIPTS [1, 2, 3] INDICATE AREAS OF OCCURRENCE; ASTERISKS * INDICATE SPECIES EXCLUDED FROM COMMUNITY ANALYSIS).

CNIDARIA
- Actinothoe sp. 1 [3]
- *Ceriantheopsis americana* (Verrill, 1866) [3]
- *Edwardsia elegans* Verrill, 1869 [2,3]

PLATYHELMINTHES
- Turbellaria spp. [3]

NEMERTEA
- *Amphiporus angulatus* (Fabricius, 1774) [2,3]
- *Amphiporus bioculatus* McIntosh, 1873 [3]
- *Amphiporus cruentatus* Verrill, 1879 [3]
- *Amphiporus groenlandicus* Oersted, 1844 [3]
- *Carinomella lactea* Coe, 1905 [2,3]
- *Carinoma tremaphoros* Thompson, 1900 [3]
- *Cerebratulus lacteus* (Leidy, 1851) [2,3]
- *Micrura* spp. [3]

PRIAPULA
- *Priapulus caudatus* Lamarck, 1816 [3]

SIPUNCULA
- *Phascolion strombi* (Montagu, 1804) [3]
- *Phascolopsis gouldii* (Pourtalès, 1851) [3]

ANNELIDA
- Polychaeta
  - Acrocirridae
    - *Macrochaeta* sp. 1 [3]
  - Ampharetidae
    - *Ampharete finmarchica* (Sars, 1864) [3]
    - *Melinna cristata* (Sars, 1851) [2,3]
  - Capitellidae
    - *Capitella capitata* complex (Fabricius, 1780) [1,2,3]
    - *Capitella jonesi* Hartman, 1940 [1,2,3]
    - *Heteromastus filiformis* (Claparède, 1864) [1,2,3]
    - *Mediomastus ambiseta* Hartman, 1947 [1,2,3]
    - *Notomastus latericeus* Sars, 1850 [1,2,3]
  - Chaetopteridae
    - *Spiochaetopterus oculatus* Webster, 1879 [3]
  - Cirratulidae
    - *Aphelochaeta marioni* (Saint-Joseph, 1894) [3]
    - *Aphelochaeta* nr. *monilaris* (Hartman, 1960) [3]
    - *Caulleriella* sp. A [3]
    - *Caulleriella* sp. B [3]
    - *Chaetozone* spp. [3]
    - *Cirratulus* sp. 1 [2,3]
    - *Cirriformia grandis* (Verrill, 1873) [3]
    - *Dodecaceria* spp. [2]
    - *Monticellina baptisteae* Blake, 1991 [3]
    - *Monticellina dorsobranchialis* (Kirkegaard, 1959) [3]
    - *Tharyx acutus* Webster & Benedict, 1887 1,2,3
  - Dorvilleidae
    - *Dorvillea (Schistomeringos) rudolphii* (delle Chiaje, 1828) [2,3]
    - *Parougia caeca* (Webster & Benedict, 1884) [3]
    - *Protodorvillea gaspeensis* Pettibone, 1961 [3]
  - Flabelligeridae
    - *Pherusa affinis* (Leidy, 1855) [3]
  - Glyceridae
    - *Glycera americana* Leidy, 1855 [2,3]
    - *Glycera* sp. 1 [2,3]
  - Goniadidae
    - *Glycinde solitaria* (Webster, 1879) [1,2,3]
  - Hesionidae
    - *Gyptis vittata* Webster & Benedict, 1887 [1,2,3]
    - *Microphthalmus aberrans* (Webster & Benedict, 1887) 1,2
    - *Microphthalmus sczelkowii* Mecanikow, 1865 [2,3]
    - *Pokarke obscura* Verrill, 1873 [1,2,3]
  - Lumbrineridae
    - *Ninoe nigripes* Verrill, 1873 [3]
    - *Paraninoe brevipes* (McIntosh, 1903) [3]
    - *Scoletoma acicularum* (Webster & Benedict, 1887) [3]
    - *Scoletoma hebes* (Verrill, 1880) [3]
    - *Scoletoma tenuis* (Verrill, 1873) [2,3]
  - Maldanidae
    - *Asychis elongata* (Verrill, 1873) [3]
    - *Axiothella* sp. A [3]
    - *Clymenella torquata* (Leidy, 1855) [3]
    - *Euclymene collaris* (Claparède, 1870) [2,3]
    - *Maldane sarsi* Malmgren, 1865 [3]
  - Nephtyidae
    - *Nephtys cornuta* Berkeley & Berkeley, 1945 [3]
    - *Nephtys incisa* Malmgren, 1865 [3]
    - *Nephtys picta* Ehlers, 1868 [3]
  - Nereididae
    - *Nereis arenaceodonta* Moore, 1903 [3]
    - *Nereis grayi* Pettibone, 1956 [3]
    - *Neanthes succinea* (Frey & Leuckart, 1847) [1,2,3]
    - *Platynereis dumerilii* (Audouin & Milne-Edwards, 1833) [2,3]
  - Oenonidae
    - *Arabella iricolor* (Montagu, 1804) [3]
    - *Drilonereis longa* Webster, 1879 [2,3]
    - *Notocirrus spiniferus* (Moore, 1906) [3]
  - Onuphidae
    - *Diopatra cuprea* (Bosc, 1802) [3]
  - Orbiniidae
    - *Leitoscoloplos acutus* (Verrill, 1873) [1,3]
    - *Leitoscoloplos robustus* (Verrill, 1873) [1,2,3]
    - *Scoloplos (Leodamas) rubra* (Webster, 1879) [3]
  - Oweniidae
    - *Owenia fusiformis* Delle Chiaje, 1844 [3]
  - Paraonidae
    - *Aricidea catherinae* Laubier, 1967 [3]
    - *Cirrophorus furcatus* (Hartman, 1957) [3]
    - *Levinsenia gracilis* (Tauber, 1879) [3]
    - *Paradoneis lyra* Southern, 1914 [3]
    - *Paraonis fulgens* (Levinsen, 1883) [3]
  - Pectinariidae
    - *Pectinaria gouldii* (Verrill, 1873) [1,2,3]
  - Phyllodocidae
    - *Eteone heteropoda* Hartman, 1951 [1,2,3]
    - *Eteone trilineata* Webster & Benedict, 1887 [2]
    - *Eulalia bilineata* (Johnston, 1840) [2]
    - *Eumida sanguinea* (Oersted, 1843) [1,2,3]
    - *Paranaitis speciosa* (Webster, 1880) [2]
    - *Phyllodoce arenae* Webster, 1879 [1,2,3]
  - Pilargiidae
    - *Ancistrosyllis hartmanae* Pettibone, 1966 [2,3]
    - *Cabira incerta* Webster, 1879 [3]
  - Pisionidae
    - *Pisione remota* (Southern, 1914) [3]
  - Polygordiidae
    - *Polygordius* sp. A [2,3]
  - Polynoidae
    - *Lagisca extenuata* (Grube, 1840) [3]
    - *Lepidonotus sublevis* Verrill, 1873 [3]
    - *Harmothoe ? nodosa* (Sars, 1860) [3]
  - Sabellariidae
    - *Sabellaria vulgaris* Verrill, 1873 [2]
  - Serpulidae
    - *Hydroides dianthus* (Verrill, 1873) [1,2,3]*
  - Sigalionidae
    - *Sthenelais boa* (Johnston, 1833) [2,3]
  - Sphaerodoridae
    - *Sphaerodoropsis minuta* (Webster & Benedict, 1887) [3]

Spionidae
Boccardiella hamata (Webster, 1879) [2,3]
Carazziella hobsonae Blake, 1979 [3]
Dipolydora commensalis Andrews, 1891 [3]*
Dipolydora concharum (Verrill, 1880) [3]*
Dipolydora giardi (Mesnil, 1896) [2]
Dipolydora socialis (Schmarda, 1861) [2,3]
Polydora cornuta Bosc, 1802 [1,2,3]
Polydora neocaeca Williams, 1999 [2]*
Polydora websteri Hartman, 1943 [3]
Prionospio heterobranchia Moore, 1907 [1,2,3]
Prionospio (Minuspio) perkinsi Maciolek, 1985 [1,2,3]
Scolelepis bousfieldi Pettibone, 1963 [2,3]
Scolelepis texana Foster, 1971 [2,3]
Spio setosa Verrill, 1873 [2,3]
Spiophanes bombyx (Claparède, 1870) [3]
Streblospio benedicti Webster, 1879 [1,2,3]
Syllidae
Autolytus prolifer (O.F. Müller, 1788) [2]
Brania clavata (Claparède, 1863) [2,3]
Brania wellfleetensis Pettibone, 1956 [3]
Eusyllis lamelligera Marion & Bobretzky, 1875 [3]
Exogone dispar (Webster, 1879) [2,3]
Odontosyllis fulgurans Claparède, 1864 [3]
Parapionosyllis longicirrata (Webster & Benedict, 1884) [3]
Sphaerosyllis longicauda Webster & Benedict, 1887 [3]
Sphaerosyllis taylori Perkins, 1981 [3]
Streptosyllis ? varians Webster & Benedict, 1887 [3]
Syllides cf. *verrilli* Moore, 1908 [3]
Typosyllis alternata (Moore, 1908) [3]
Typosyllis regulata Imajima, 1966 [3]
Terebellidae
Amphitrite johnstoni Malmgren, 1866 [2]
Pista cristata (O.F. Müller, 1776) [3]
Pista maculata Marenzeller, 1884 [3]
Pista palmata (Verrill, 1873) [3]
Polycirrus eximius (Leidy, 1855) [2,3]

Oligochaeta
Oligochaeta spp. [1,2,3]

CRUSTACEA
Amphipoda
Ampeliscidae
Ampelisca abdita Mills, 1864 [2,3]
Ampelisca macrocephala Lilljeborg, 1852 [3]
Ampelisca vadorum Milla, 1963 [2,3]
Ampelisca verrilli Mills, 1967 [3]
Ampithoidae
Ampithoe valida Smith, 1873 [3]
Cymadusa compta (Smith, 1873) [1,2]
Aoridae
Lembos smithi Holmes, 1905 [3]
Microdeutopus gryllotalpa Costa, 1853 [1,2]
Microdeutopus anomalus (Rathke, 1843) [3]
Rudilemboides naglei Bousfield, 1973 [3]
Bateidae
Batea catherinensis Muller, 1865 [3]
Caprellidae
Luconacia incerta Mayer, 1903 [3]*
Paracaprella tenuis Mayer, 1903 [1,2,3]*
Corophiidae
Apocorophium acutum (Chevreux, 1908) [1,3]
Erichthonius brasiliensis (Dana, 1853) [3]
Monocorophium acherusicum (Costa, 1857) [2]
Unciola dissimilis Shoemaker, 1945 [3]
Unciola irrorata Say, 1818 [3]
Crangonycidae
Crangonyx pseudogracilis Bousfield, 1958 [3]
Gammaridae
Gammarus mucronatus (Say, 1818) [1,3]
Gammarus oceanicus Segerstrale, 1947 [3]
Isaeidae
Microprotopus raneyi Wigley, 1966 [2,3]
Ischyroceridae
Jassa marmorata Holmes, 1903 [3]
Liljeborgiidae
Listriella barnardi Wigley, 1966 [3]
Lysianassidae
Lysianopsis alba Holmes, 1905 [3]
Melitidae
Elasmopus laevis Smith, 1873 [3]
Melita nitida Smith, 1873 [1,2]
Oedicerotidae
Ameroculodes sp. 1 [3]
Phoxocephalidae
Eobrolgus spinosus (Holmes, 1905) [3]
Phoxocephalus holbolli (Krøyer, 1842) [3]
Rhepoxynius hudsoni Barnard & Barnard, 1982 [3]
Stenothoidae
Stenothoe minuta Holmes, 1905 [1]

Cephalocarida
Hutchinsoniella macracantha Sanders, 1955 [2,3]

Cirripedia
Balanidae
Balanus venustus Darwin, 1854 [2,3]*

Cumacea
Diastylidae
Oxyurostylis smithi Calman, 1912 [2,3]
Leuconidae
Leucon americanus Zimmer, 1943 [2,3]

Decapoda
Cancridae
Cancer irroratus Say, 1817 [3]
Crangonidae
Crangon septemspinosa (Say, 1818) [1,2,3]
Hippolytidae
Hippolyte zostericola (Smith, 1873) [2]
Majidae
Hyas araneus (Linnaeus, 1758) [3]
Hyas coarctatus Leach, 1815 [3]
Libinia dubia H. Milne Edwards, 1834 [2,3]
Paguridae
Pagurus annulipes Stimpson, 1860 [2,3]
Pagurus lonigicarpus Say, 1817 [1]
Palaemonidae
Palaemonidetes vulgaris Say, 1818 [1,2]*
Parthenoopidae
Heterocrypta granulata (Gibbes, 1850) [3]
Pinnotheridae
Pinnixa chaetopterana Stimpson, 1860 [3]
Pinnixa sayana Stimpson, 1860 [2,3]
Zaops ostreum (Say, 1817) [3]
Porcellanidae
Polyonyx gibbesi Haig, 1956 [2,3]

Portunidae
Callinectes sapidus Rathbun, 1896 [1,2,3]
Upogebiidae
Upogebia affinis Say, 1818 [2]

Xanthidae
Dyspanopeus sayi (Smith, 1869) [1,2,3]
Eurypanopeus depressus (Smith, 1869) [2]
Hexapanopeus angustifrons (Benedict & Rathbun, 1891) [3]
Panopeus herbstii H. Milne Edwards, 1834 [3]

Isopoda
Anthuriidae
Ptilanthura tenuis Harger, 1879 [3]
Idoteidae
Edotia triloba (Say, 1818) [1,2,3]
Janiridae
Ianiropsis sp. 1 [2]

- Mysidacea
  - Mysidae
    - *Heteromysis formosa* S.I. Smith, 1873 [3]
    - *Neomysis americana* (S.I. Smith, 1873) [1]
- Tanaidacea
  - Leptocheliidae
    - *Leptochelia dubia* (Krøyer, 1842) [3]

MOLLUSCA
- Bivalvia
  - Anomiidae
    - *Anomia simplex* Orbigny, 1842 [2,3]*
  - Arcidae
    - *Anadara transversa* (Say, 1822) [2,3]
  - Astartidae
    - *Astarte castanea* (Say, 1822) [3]
  - Cardiidae
    - *Cerastoderma pinnulatum* (Conrad, 1831) [3]
    - *Laevicardium mortoni* (Conrad, 1830) [2,3]
  - Carditidae
    - *Crassinella lunulata* (Conrad, 1834) [3]
  - Corbulidae
    - *Corbula contracta* Say, 1822 [3]
  - Leptonidae
    - *Montacutidae percompressa* Dall, 1899 [3]
    - *Mysella planulata* (Stimpson, 1857) [1,2,3]
  - Liidae
    - *Lyonsia hyalina* Conrad,1831 [2,3]
  - Mactridae
    - *Mulinia lateralis* (Say, 1822) [1,2,3]
  - Ostreidae
    - *Crassostrea virginica* (Gmelin, 1791) [1,3]*
  - Montacutidae
    - *Pythinella cuneata* Dall, 1899 [3]
  - Myidae
    - *Mya arenaria* Linnaeus, 1758 [1,2]
  - Mytilidae
    - *Mytilus edulis* Linnaeus, 1758 [3]*
  - Nuculidae
    - *Nucula annulata* Hampson, 1971 [2,3]
    - *Nucula delphinodonta* Mighels & Adams, 1842 [3]
    - *Nucula proxima* Say, 1822 [3]
    - *Yoldia limatula* (Say, 1831) [3]
    - *Yoldia sapotilla* (Gould, 1841) [3]
  - Petricolidae
    - *Petricola pholadiformis* [1,2,3]
  - Semelidae
    - *Cumingia tellinoides* (Conrad, 1831) [3]
  - Solemyidae
    - *Solemya velum* Say, 1822 [2,3]
  - Solenidae
    - *Ensis directus* Conrad, 1843 [2]
  - Tellinidae
    - *Macoma tenta* (Say, 1834) [1,2,3]
    - *Tellina agilis* Stimpson, 1857 [1,2,3]
  - Thyasiridae
    - *Thyasira gouldii* Philippi, 1845 [2,3]
  - Veneridae
    - *Gemma gemma* (Totten, 1834) [1,2]
    - *Mercenaria mercenaria* (Linnaeus, 1758) [1,2,3]
    - *Pitar morrhuana* Linsley, 1848 [2,3]
- Gastropoda
  - Nudibranchia
    - Corambidae
      - *Coryphella pellucida* (Alder & Hancock, 1843) [2]
      - *Coryphella rufibranchialis* (Johnston, 1832) [3]
  - Opisthobranchia
    - Acteonidae
      - *Rictaxis punctostriatus* (C.B. Adams, 1840) [1,2,3]
    - Acteocinidae
      - *Acteocina canaliculata* (Say, 1822) [2,3]
    - Cylichnidae
      - *Cylichna oryza* (Totten, 1835) [3]
    - Diaphanidae
      - *Diaphana minuta* (Brown, 1827) [3]
    - Haminoeidae
      - *Haminoea solitaria* (Say, 1822) [1,2,3]
  - Prosobranchia
    - Calyptraeidae
      - *Crepidula convexa* Say, 1822 [1,2]*
      - *Crepidula fornicata* (Linnaeus, 1758) [2,3]*
      - *Crepidula plana* Say, 1822 [2,3]*
    - Cerithiidae
      - *Bittium alternatum* Say, 1822 [2,3]
      - *Seila adamsi* (H.C. Lea, 1845) [2,3]
    - Columbellidae
      - *Anachis lafresnayi* (Fischer & Bernardi, 1856) [3]
      - *Mitrella lunata* (Say, 1826) [1,2,3]
    - Lacunidae
      - *Lacuna vincta* (Montagu, 1803) [3]
    - Hydrobiidae
      - *Hydrobia truncata* (Vanatta, 1924) [1,2]
      - *Spurwinkia salsa* (Pilsbry, 1905) [1]
    - Melanellidae
      - *Melanella conoidea* Kurtz & Stimpson, 1851 [3]
    - Melongenidae
      - *Busycon carica* (Gmelin, 1791) [3]
    - Nassariidae
      - *Ilyanassa obsoleta* (Say, 1822) [1]
      - *Ilyanassa trivittata* (Say, 1822) [3]
    - Naticidae
      - *Neverita duplicata* (Say, 1822) [3]
      - *Tectonatica pusilla* (Say, 1822) [3]
    - Pyramidellidae
      - *Boonea seminuda* (C.B. Adams, 1837) [2,3]
      - *Fargoa bartschi* (Winkley, 1909) [2,3]
      - *Odostomia eburnea* (Stimpson, 1851) [2]
      - *Turbonilla aequalis* (Say, 1827) [2,3]
      - *Turbonilla areolata* (Verrill, 1873) [3]
      - *Turbonilla elegantula* Verrill, 1882 [3]
      - *Turbonilla sumneri* Bartsch, 1909 [3]
    - Turridae
      - *Kurtziella cerina* (Kurtz & Stimpson, 1851) [3]
      - *Propebela turricula* (Montagu, 1803) [3]
    - Turritellidae
      - *Turritellopsis acicula* (Stimpson, 1851) [3]
  - Polyplacophora
    - *Chaetopleura apiculata* (Say, 1830) [3]*

ECHINODERMATA
- Holothuroidea
  - *Epitomapta roseola* (Verrill, 1873) [2,3]
- Ophiuroidea
  - *Axiognathus squamatus* (Delle Chiaje, 1828) [3]
  - *Ophiura* spp. [3]

HEMICHORDATA
- *Saccoglossus kowalevskii* Agassiz, 1873 [3]

APPENDIX 10

BENTHIC INFAUNAL DATA NEW BEDFORD HARBOR LONG-TERM MONITORING III

New Bedford Harbor - 1999	Barcode	5001015	5001017	5002015	5002017	5003015	5003017	5004015	5004017	5005015	5005017	5006015	5006017	5007015	5007017	5008015
Area 1 - All Taxa	Station	105	105	108	108	109	109	111	111	114	114	115	115	117	117	120
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1
Taxon	NODC Code															
Apocorophium acutum	6169150213															
Callinectes sapidus	6189010301									1						
Capitella capitata complex	5001600101	2	1							45	15	1		10		
Capitella jonesi	50016001JONE															
Crangon septemspinosa	6179220103															
Crassostrea virginica	5510020102															
Crepidula convexa	5103640205															
Cymadusa compta	6169040201															
Dyspanopeus sayi	6189020703		1													
Edotia triloba	6162020703	1							4	1			2			
Eteone heteropoda	5001130207	69	31	59	135	47	54	38	20	29	15	21	27	15	111	115
Eumida sanguinea	5001131101															
Gammarus mucronatus	6169210709				1									1		
Gemma gemma	5515471301	604	140	3	4	65	177	363	795	339	427	7	8	1640	8162	7738
Glycinde solitaria	5001280104														1	1
Gyptis vittata	5001210103															1
Haminoea solitaria	5110120102	38	14			1	5	8	6	3			1			
Heteromastus filiformis	5001600201															
Hydrobia truncata	5103130101	188		4		1094	2029	580	2049	10	6	360	296			
Hydrobiidae spp.	510313SPP							1								
Hydroides dianthus	5001730901															
Ilyanassa obsoleta	5105080201	9	5			6		15		4	5	10	1	17	15	15
Leitoscoloplos acutus	5001400305															
Leitoscoloplos robustus	5001400304	1			3			1			1	1	2			5
Leitoscoloplos spp.	50014003SPP		1	2								2			1	
Macoma tenta	5515310120															
Mediomastus ambiseta	5001600401															
Melita nitida	6169211006															
Mercenaria mercenaria	5515471101															
Microdeutopus gryllotalpa	6169060401															
Microphthalmus aberrans	5001210202				1											
Mitrella lunata	5105030207															
Mulinia lateralis	5515250301	25	13			6	5	14	20	12	9			52	11	25

New Bedford Harbor - 1999	Barcode	5001015	5001017	5002015	5002017	5003015	5003017	5004015	5004017	5005015	5005017	5006015	5006017	5007015	5007017	5008015
Area 1 - All Taxa	Station	105	105	108	108	109	109	111	111	114	114	115	115	117	117	120
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1
Taxon	NODC Code															
Mya arenaria	5517010201	2	1				12	5	12			1		2	1	
Mysella planulata	5515100110															
Neanthes succinea	5001240309	1														
Neomysis americana	6153011508															1
Notomastus latericeus	5001600306				1											
Oligochaeta spp.	5003SPP	31	9	17	19	1	10	30	54	4	15	3		14	50	36
Pagurus longicarpus	6183060230															
Palaemonetes vulgaris	6179110304															
Paracaprella tenuis	6189020801															
Pectinaria gouldii	5001660302															
Petricola pholadiformis	5515480102								1							
Phyllodoce arenae	5001131410															
Podarke obscura	5001211502															
Polydora cornuta	5001430448															
Prionospio (Minuspio) perkinsi	5001430517															
Prionospio heterobranchia	5001430503															
Rictaxis punctostriatus	5110010403								3						1	3
Spurwinkia salsa	5103133601	31			2	3	10	23	20	4	1	49	65			
Stenothoe minuta	6169481002															
Streblospio benedicti	5001431801	556	329	108	164	130	143	267	143	147	55	48	109	70	28	118
Tellina agilis	5515310205															
Tharyx acutus	5001500305	3						1	3					45	50	29
Grand Total		1561	545	193	330	1353	2445	1346	3130	599	549	503	511	1866	8431	8087

New Bedford Harbor - 1999	Barcode	5008017	5009015	5009017	5010015	5010017	5011015	5011017	5012015	5012017	5013015	5013017	5014015	5014017	5015015	5015017
Area 1 - All Taxa	Station	120	121	121	123	123	125	125	126	126	128	128	130	130	131	131
	Replicate	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code															
Apocorophium acutum	6169150213															
Callinectes sapidus	6189010301										1					
Capitella capitata complex	5001600101		1		4	1	31	11	1	5	2		1	5		1
Capitella jonesi	50016001JONE	1														
Crangon septemspinosa	6179220103							1					1			
Crassostrea virginica	5510020102															
Crepidula convexa	5103640205		1							2						
Cymadusa compta	6169040201															
Dyspanopeus sayi	6189020703															
Edotia triloba	6162020703				3				1	1						2
Eteone heteropoda	5001130207	70		83	38	44	26	17	95	96	16	7	38	13	55	31
Eumida sanguinea	5001131101															
Gammarus mucronatus	6169210709															
Gemma gemma	5515471301	4900	4821	3439	2	2	11		258	612	4	2		1		
Glycinde solitaria	5001280104	2												1		
Gyptis vittata	5001210103															
Haminoea solitaria	5110120102													1	3	2
Heteromastus filiformis	5001600201															
Hydrobia truncata	5103130101								2	6						
Hydrobiidae spp.	510313SPP															
Hydroides dianthus	5001730901															
Ilyanassa obsoleta	5105080201	9	36	10			6	7	4	8	1	1	15	26	3	5
Leitoscoloplos acutus	5001400305															
Leitoscoloplos robustus	5001400304	1	1	5	2			3	4	6	10			10		
Leitoscoloplos spp.	50014003SPP		4			8	11		13	4		4	23		41	28
Macoma tenta	5515310120				2										1	2
Mediomastus ambiseta	5001600401								1						2	
Melita nitida	6169211006															
Mercenaria mercenaria	5515471101				3	1			4		5	3	1		15	24
Microdeutopus gryllotalpa	6169060401										3					
Microphthalmus aberrans	5001210202															
Mitrella lunata	5105030207															
Mulinia lateralis	5515250301	7	4	4	281	496	11	9	7	6	589	411	74	74	635	816

New Bedford Harbor - 1999	Barcode	5008017	5009015	5009017	5010015	5010017	5011015	5011017	5012015	5012017	5013015	5013017	5014015	5014017	5015015	5015017
Area 1 - All Taxa	Station	120	121	121	123	123	125	125	126	126	128	128	130	130	131	131
	Replicate	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code															
Mya arenaria	5517010201		2						37	67			1		7	12
Mysella planulata	5515100110															
Neanthes succinea	5001240309				1						2			1		
Neomysis americana	6153011508				1						1			2		
Notomastus latericeus	5001600306															
Oligochaeta spp.	5003SPP	49	66	65	71	84	18	25	38	4	239	30	143	151	177	113
Pagurus longicarpus	6183060230															
Palaemonetes vulgaris	6179110304															
Paracaprella tenuis	6189020801															
Pectinaria gouldii	5001660302						1		1		2					
Petricola pholadiformis	5515480102															
Phyllodoce arenae	5001131410								4							
Podarke obscura	5001211502															
Polydora cornuta	5001430448								22		3					
Prionospio (Minuspio) perkinsi	5001430517															
Prionospio heterobranchia	5001430503													1		
Rictaxis punctostriatus	5110010403				1							1			5	1
Spurwinkia salsa	5103133601															
Stenothoe minuta	6169481002															
Streblospio benedicti	5001431801	135	77	46	331	511	943	694	721	150	250	96	1496	985	675	660
Tellina agilis	5515310205								1		1					1
Tharyx acutus	5001500305	13	7	28	3	4			140	11		1		1	12	
Grand Total		5187	5020	3680	743	1151	1058	767	1354	978	1129	556	1793	1272	1631	1698

New Bedford Harbor - 1999	Barcode	5016015	5016017	5017015	5017017	5018015	5018017	5019015	5019017	5020015	5020017	5021015	5021017	5022015	5022017	5023015
Area 1 - All Taxa	Station	134	134	135	135	138	138	139	139	140	140	146	146	147	147	150
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1
Taxon	NODC Code															
Apocorophium acutum	6169150213															
Callinectes sapidus	6189010301	1	2													
Capitella capitata complex	5001600101	2		22	25			1	1		1	1		14	58	3
Capitella jonesi	50016001JONE			2	3						1			1	5	
Crangon septemspinosa	6179220103					1				1						
Crassostrea virginica	5510020102															
Crepidula convexa	5103640205			8	4								3	7		
Cymadusa compta	6169040201															
Dyspanopeus sayi	6189020703													1		
Edotia triloba	6162020703															
Eteone heteropoda	5001130207	40	26	23	28	37	32	56	22	33	27	12	15	2	21	20
Eumida sanguinea	5001131101															
Gammarus mucronatus	6169210709															
Gemma gemma	5515471301		3	4	3			4	5					1	2	
Glycinde solitaria	5001280104							2								
Gyptis vittata	5001210103															
Haminoea solitaria	5110120102	2	10			2		12		2						
Heteromastus filiformis	5001600201			3												
Hydrobia truncata	5103130101															
Hydrobiidae spp.	510313SPP															
Hydroides dianthus	5001730901															
Ilyanassa obsoleta	5105080201	6	7		11	25		31	5	2				22	5	5
Leitoscoloplos acutus	5001400305									1						
Leitoscoloplos robustus	5001400304	46		3	36	3		77			29	2	3	2	5	1
Leitoscoloplos spp.	50014003SPP		1	15		9	22		46	4		9	16		14	18
Macoma tenta	5515310120									1						
Mediomastus ambiseta	5001600401	3	10		1			14	5	4	3	4				1
Melita nitida	6169211006															
Mercenaria mercenaria	5515471101	2	3		8			17	5	32	15	157	19	1	7	16
Microdeutopus gryllotalpa	6169060401															
Microphthalmus aberrans	5001210202															
Mitrella lunata	5105030207											1				
Mulinia lateralis	5515250301	353	751	1	3	117	118	151	134	863	858	74	32		4	264

New Bedford Harbor - 1999	Barcode	5016015	5016017	5017015	5017017	5018015	5018017	5019015	5019017	5020015	5020017	5021015	5021017	5022015	5022017	5023015
Area 1 - All Taxa	Station	134	134	135	135	138	138	139	139	140	140	146	146	147	147	150
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1
Taxon	NODC Code															
Mya arenaria	5517010201	1		9	11	1	1		1	7		2		1		
Mysella planulata	5515100110															
Neanthes succinea	5001240309				1			2		2						
Neomysis americana	6153011508	5									1					
Notomastus latericeus	5001600306				2									1		
Oligochaeta spp.	5003SPP	155	141	79	54	5	11	99	114	98	80	87	32	49	60	44
Pagurus longicarpus	6183060230										1					
Palaemonetes vulgaris	6179110304															
Paracaprella tenuis	6189020801															
Pectinaria gouldii	5001660302				1											
Petricola pholadiformis	5515480102															
Phyllodoce arenae	5001131410															
Podarke obscura	5001211502															
Polydora cornuta	5001430448	2		4	21							2	1	13	12	14
Prionospio (Minuspio) perkinsi	5001430517														1	
Prionospio heterobranchia	5001430503							2						1		
Rictaxis punctostriatus	5110010403	1	2					1		5	5					
Spurwinkia salsa	5103133601															
Stenothoe minuta	6169481002															
Streblospio benedicti	5001431801	543	407	471	490	365	192	713	583	494	377	264	181	144	538	274
Tellina agilis	5515310205	1			1				1	2						
Tharyx acutus	5001500305	4	2		101		1	5		5	1	90	8	18	14	1
Grand Total		1167	1365	644	804	565	377	1187	922	1556	1399	705	310	278	746	661

New Bedford Harbor - 1999	Barcode	5023017	5024015	5024017	5025015	5025017	5026015	5026016	5027015	5027017	
Area 1 - All Taxa	Station	150	151	151	152	152	154	154	155	155	
	Replicate	3	1	3	1	3	1	2	1	3	
Taxon	NODC Code										Total
Apocorophium acutum	6169150213								2		2
Callinectes sapidus	6189010301										5
Capitella capitata complex	5001600101	1									266
Capitella jonesi	50016001JONE						7		1		21
Crangon septemspinosa	6179220103										4
Crassostrea virginica	5510020102								1		1
Crepidula convexa	5103640205							1			26
Cymadusa compta	6169040201								6		6
Dyspanopeus sayi	6189020703						1				3
Edotia triloba	6162020703										15
Eteone heteropoda	5001130207	13	16	5		16	23	14	55	23	1974
Eumida sanguinea	5001131101						2				2
Gammarus mucronatus	6169210709										2
Gemma gemma	5515471301		1				1	18	148	11	34725
Glycinde solitaria	5001280104		2								9
Gyptis vittata	5001210103						2				3
Haminoea solitaria	5110120102										110
Heteromastus filiformis	5001600201						5	1			9
Hydrobia truncata	5103130101										6624
Hydrobiidae spp.	510313SPP										1
Hydroides dianthus	5001730901						33				33
Ilyanassa obsoleta	5105080201	10			12	6				2	382
Leitoscoloplos acutus	5001400305										1
Leitoscoloplos robustus	5001400304	14						2	5		284
Leitoscoloplos spp.	50014003SPP		20	6		20	12		2	5	361
Macoma tenta	5515310120										6
Mediomastus ambiseta	5001600401		1				3	12			64
Melita nitida	6169211006								8		8
Mercenaria mercenaria	5515471101	25	14	5			26	34	1	1	444
Microdeutopus gryllotalpa	6169060401	2					1		3		9
Microphthalmus aberrans	5001210202										1
Mitrella lunata	5105030207						1				2
Mulinia lateralis	5515250301	106	3	3	6	21		1			7479

New Bedford Harbor - 1999	Barcode	5023017	5024015	5024017	5025015	5025017	5026015	5026016	5027015	5027017	
Area 1 - All Taxa	Station	150	151	151	152	152	154	154	155	155	
	Replicate	3	1	3	1	3	1	2	1	3	
Taxon	NODC Code										Total
Mya arenaria	5517010201	12	1				1	4	2		216
Mysella planulata	5515100110							1			1
Neanthes succinea	5001240309						7	3			20
Neomysis americana	6153011508										11
Notomastus latericeus	5001600306										4
Oligochaeta spp.	5003SPP	22	23	3			133	38	58	52	3003
Pagurus longicarpus	6183060230										1
Palaemonetes vulgaris	6179110304								4	1	5
Paracaprella tenuis	6189020801						1				1
Pectinaria gouldii	5001660302	2					1				8
Petricola pholadiformis	5515480102						1				2
Phyllodoce arenae	5001131410						6				10
Podarke obscura	5001211502						1				1
Polydora cornuta	5001430448	12					189	17	20	2	334
Prionospio (Minuspio) perkinsi	5001430517								1		2
Prionospio heterobranchia	5001430503							1			5
Rictaxis punctostriatus	5110010403										29
Spurwinkia salsa	5103133601										208
Stenothoe minuta	6169481002						5				5
Streblospio benedicti	5001431801	211	258	89	39	285	191	121	187	68	17670
Tellina agilis	5515310205	1	2				3	2			16
Tharyx acutus	5001500305	29	65	40		3	65	20	10		833
Grand Total		460	406	151	57	351	721	290	514	165	75267

New Bedford Harbor - 1999	Barcode	5028015	5028017	5029015	5029016	5030015	5030017	5031016	5031017	5032015	5032017	5033015	5033017	5034015	5034016	5035015
Area 2 - All Taxa	Station	202	202	204	204	207	207	208	208	211	211	212	212	216	216	217
	Replicate	1	3	1	2	1	3	2	3	1	3	1	3	1	2	1
Taxon	NODC Code															
Acteocina canaliculata	5110040103						2			1	2					
Ampelisca abdita	6169020108															
Ampelisca vadorum	6169020109															
Amphiporus angulatus	4306050101										3					
Amphitrite johnstoni	5001680104				4											
Anadara transversa	5506010201															
Ancistrosyllis hartmanae	5001220102			1												
Anomia simplex	5509090202				2									1		
Autolytus prolifer	5001230104															
Balanus venustus	6134020121															
Bittium alternatum	5103460105															
Bivalvia spp.	55SPP															
Boccardiella hamata	5001432801															
Boonea seminuda	5108011403													3	4	
Brania clavata	5001230902															
Callinectes sapidus	6189010301	1		1												
Capitella capitata complex	5001600101							49	86			1				
Capitella jonesi	50016001JONE	19	1		4	2		18	37							
Capitellidae spp.	500160SPP							2								
Carinomella lactea	4302010201															
Cerebratulus lacteus	4303020209															
Cerebratulus spp.	43030202SPP				1											
Cirratulidae spp.	500150SPP		1	29	5				3				1	6		
Cirratulus sp. 1	50015001SP01	1	1													
Coryphella pellucida	5141040108															
Crangon septemspinosa	6179220103														1	
Crepidula convexa	5103640205	1			7				6					4	1	
Crepidula fornicata	5103640204	2	4	5	3				16					6		
Crepidula plana	5103640207				1				2					1		
Crepidula spp.	51036402SPP			3				4	1					1		
Cymadusa compta	6169040201															
Decapoda spp.	6175SPP															
Dipolydora giardi	5001430401															
Dipolydora socialis	5001430402															
Dodecaceria spp.	50015005SPP															
Dorvillea (Schistomeringos) rudolphii	5001360504															
Drilonereis longa	5001330103															
Dyspanopeus sayi	6189020703	1			3	1	2	2	5							

New Bedford Harbor - 1999	Barcode	5028015	5028017	5029015	5029016	5030015	5030017	5031016	5031017	5032015	5032017	5033015	5033017	5034015	5034016	5035015
Area 2 - All Taxa	Station	202	202	204	204	207	207	208	208	211	211	212	212	216	216	217
	Replicate	1	3	1	2	1	3	2	3	1	3	1	3	1	2	1
Taxon	NODC Code															
Edotia triloba	6162020703			1												
Edwardsia elegans	3759010101															
Ensis directus	5515290301															
Epitomapta roseola	8178010206															
Eteone heteropoda	5001130207	32	26	18	14	26	37	32	27	4	33	30	16		15	29
Eteone spp.	50011302SPP				10		1							1		
Eteone trilineata	5001130209															
Euclymene collaris	5001631102															
Eulalia bilineata	5001130304															
Eumida sanguinea	5001131101	1	3		1				2							
Eurypanopeus depressus	6189020501		1													
Exogone dispar	5001230701															
Fargoa bartschi	5108011501															
Gastropoda spp.	51SPP											1				
Gemma gemma	5515471301		1					26	26							
Glycera americana	5001270104						1									
Glycera sp. 1	50012701SP01							1								
Glycinde solitaria	5001280104			1	1		4	1		3	4			1	3	1
Gyptis vittata	5001210103		1	3	2	1	2			2	5	1		7	6	
Haminoea solitaria	5110120102					1	82			1	3					
Heteromastus filiformis	5001600201		1					4	19	1				1	3	
Hippolyte spp.	61791601SPP															
Hippolyte zostericola	6179160104															
Hippolytidae spp.	617916SPP															
Hutchinsoniella macracantha	6102010101															
Hydrobia truncata	5103130101															
Hydroides dianthus	5001730901			1					3							
Ianiropsis sp. 1	61630607SP01			1												
Laevicardium mortoni	5515220401							2								
Leitoscoloplos robustus	5001400304	35	8	3	4	164	4	34	4	1	1	143	19	5	15	12
Leitoscoloplos spp.	50014003SPP		15	50	61		106		32	13	17		149	26		146
Leucon americanus	6154040110															
Libinia dubia	6187010901	1														
Lyonsia hyalina	5520050206															
Macoma tenta	5515310120			21		4				8	33	3	7		2	2
Mediomastus ambiseta	5001600401		1	19	26	5	41	54	24	24	39	1	1	3	3	28
Melinna cristata	5001670501															
Melita nitida	6169211006								4							

New Bedford Harbor - 1999	Barcode	5028015	5028017	5029015	5029016	5030015	5030017	5031016	5031017	5032015	5032017	5033015	5033017	5034015	5034016	5035015
Area 2 - All Taxa	Station	202	202	204	204	207	207	208	208	211	211	212	212	216	216	217
	Replicate	1	3	1	2	1	3	2	3	1	3	1	3	1	2	1
Taxon	NODC Code															
Mercenaria mercenaria	5515471101	5	8	7	24	2	12	25	25	18	2704	30	14	62	18	12
Microdeutopus gryllotalpa	6169060401		1						1							
Microphthalmus aberrans	5001210202										1					
Microphthalmus sczelkowii	5001210201								1							
Microprotopus raneyi	6169260901															
Mitrella lunata	5105030207															
Monocorophium ascheriusicum	6169150201															
Mulinia lateralis	5515250301			1463	23	257	24	6	74	369		1568	1180	320	123	1251
Mya arenaria	5517010201		1			1		23	6		1	2		1	1	
Mysella planulata	5515100110											1			3	
Mysidacea spp.	6151SPP															
Neanthes succinea	5001240309	1	6	8	10			2	9			1	2	2	2	5
Nereidae spp.	500124SPP				2						1					
Notomastus latericeus	5001600306	2						24				1				
Nucula annulata	5502020205						1									
Nucula spp.	55020202SPP															
Odostomia eburnea	5108010134															
Oligochaeta spp.	5003SPP	33	112	87	35	24	50	279	227	60	54	32	53	17	16	22
Oxyurostylis smithi	6154050801							1								
Pagurus annulipes	6183060227															
Pagurus spp.	61830602SPP															
Palaemonetes vulgaris	6179110304								1							
Paracaprella tenuis	6189020801			2	3											
Paranaitis speciosa	5001130801															
Pectinaria gouldii	5001660302	1		9	11	3			2	4	11	6	6	17	27	1
Petricola pholadiformis	5515480102				2		1							2		
Phyllodoce arenae	5001131410						1		1							
Phyllodocidae spp.	500113SPP															
Pinnixa sayana	6189060409															
Pinnixa spp.	61800604SPP															1
Pista spp.	50016807SPP															
Pitar morrhuana	5515471201															
Platynereis dumerilii	5001240503															
Podarke obscura	5001211502			4	4	1				2	2			3		
Polycirrus eximius	5001680804															
Polycirrus spp.	50016808SPP															
Polydora cornuta	5001430448	13	18	29	34	12		35	99			15	1	2	3	1
Polydora neocaeca	50014304NEOC								1							

New Bedford Harbor - 1999	Barcode	5028015	5028017	5029015	5029016	5030015	5030017	5031016	5031017	5032015	5032017	5033015	5033017	5034015	5034016	5035015
Area 2 - All Taxa	Station	202	202	204	204	207	207	208	208	211	211	212	212	216	216	217
	Replicate	1	3	1	2	1	3	2	3	1	3	1	3	1	2	1
Taxon	NODC Code															
Polydora spp.	50014304SPP															
Polygordius sp. A	50020501SP01			1	1									1		
Polyonyx gibbesi	6183120401															
Porcellanidae spp.	618312SPP															
Prionospio (Minuspio) perkinsi	5001430517			1										1		
Prionospio heterobranchia	5001430503		1		1			5	7		1					
Rictaxis punctostriatus	5110010403						1			1	12	1				
Sabellaria vulgaris	5001650202				1											
Scolelepis bousfieldi	5001432002															
Scolelepis texana	5001432006							1								
Scoletoma tenuis	50013101TENU						1									
Seila adamsi	5103460401															
Solemya velum	5504010101															
Spio setosa	5001430704							7	5							
Stenothoidae spp.	616948SPP				3											
Sthenelais boa	5001060302															
Streblospio benedicti	5001431801	154	103	125	203	382	259	1077	880	126	155	358	234	35	105	245
Tellina agilis	5515310205	2	1		6	1	3	2	3		3	3		8	9	1
Tharyx acutus	5001500305	120	23	555	147	22	41	144	60	25	29	23	47	84	736	14
Thyasira gouldii	5515020301								2							
Turbonilla aequalis	5108010224															
Turbonilla spp.	51080102SPP															
Upogebia affinis	6183170102															
Xanthidae spp.	618902SPP															
Grand Total		425	338	2448	659	909	676	1860	1701	663	3114	2221	1730	621	1096	1771

New Bedford Harbor - 1999	Barcode	5035017	5036015	5036017	5037015	5037016	5038015	5038017	5039015	5039017	5040015	5040017	5041015	5041017	5042015	5042017
Area 2 - All Taxa	Station	217	218	218	220	220	221	221	222	222	224	224	225	225	226	226
	Replicate	3	1	3	1	2	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code															
Acteocina canaliculata	5110040103				1											
Ampelisca abdita	6169020108															
Ampelisca vadorum	6169020109															
Amphiporus angulatus	4306050101													2		
Amphitrite johnstoni	5001680104															
Anadara transversa	5506010201															
Ancistrosyllis hartmanae	5001220102															
Anomia simplex	5509090202														1	
Autolytus prolifer	5001230104															
Balanus venustus	6134020121															
Bittium alternatum	5103460105															
Bivalvia spp.	55SPP					1						1		1		
Boccardiella hamata	5001432801															
Boonea seminuda	5108011403															
Brania clavata	5001230902															
Callinectes sapidus	6189010301								1							
Capitella capitata complex	5001600101		3						1							
Capitella jonesi	50016001JONE					1									2	
Capitellidae spp.	500160SPP														1	
Carinomella lactea	4302010201															
Cerebratulus lacteus	4303020209															
Cerebratulus spp.	43030202SPP															
Cirratulidae spp.	500150SPP			2	3	1				3	1			2		
Cirratulus sp. 1	50015001SP01				1											
Coryphella pellucida	5141040108															
Crangon septemspinosa	6179220103															
Crepidula convexa	5103640205															
Crepidula fornicata	5103640204			1	1											
Crepidula plana	5103640207				2											
Crepidula spp.	51036402SPP														2	
Cymadusa compta	6169040201															
Decapoda spp.	6175SPP					1										
Dipolydora giardi	5001430401															
Dipolydora socialis	5001430402															
Dodecaceria spp.	50015005SPP															
Dorvillea (Schistomeringos) rudolphii	5001360504															
Drilonereis longa	5001330103															
Dyspanopeus sayi	6189020703															

New Bedford Harbor - 1999	Barcode	5035017	5036015	5036017	5037015	5037016	5038015	5038017	5039015	5039017	5040015	5040017	5041015	5041017	5042015	5042017
Area 2 - All Taxa	Station	217	218	218	220	220	221	221	222	222	224	224	225	225	226	226
	Replicate	3	1	3	1	2	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code															
Edotia triloba	6162020703															
Edwardsia elegans	3759010101												2			
Ensis directus	5515290301															
Epitomapta roseola	8178010206															
Eteone heteropoda	5001130207	9	30	10	10			1	16	18	5	7	8	11	4	1
Eteone spp.	50011302SPP	3		1												
Eteone trilineata	5001130209		1													
Euclymene collaris	5001631102															
Eulalia bilineata	5001130304															
Eumida sanguinea	5001131101					5										
Eurypanopeus depressus	6189020501															
Exogone dispar	5001230701															
Fargoa bartschi	5108011501															
Gastropoda spp.	51SPP					1										
Gemma gemma	5515471301		11	11												
Glycera americana	5001270104			1	2	1										
Glycera sp. 1	50012701SP01															
Glycinde solitaria	5001280104				1	1					1		3	3	1	
Gyptis vittata	5001210103				15	6			3		2	11	11	1	7	
Haminoea solitaria	5110120102														4	
Heteromastus filiformis	5001600201		1	37					3	1						
Hippolyte spp.	61791601SPP						2	6					1			
Hippolyte zostericola	6179160104						2	2								
Hippolytidae spp.	617916SPP															
Hutchinsoniella macracantha	6102010101															
Hydrobia truncata	5103130101															
Hydroides dianthus	5001730901															
Ianiropsis sp. 1	61630607SP01															
Laevicardium mortoni	5515220401															
Leitoscoloplos robustus	5001400304	6	29	3	5	39			75	3	11	36	1	3	42	3
Leitoscoloplos spp.	50014003SPP	100		4	13		1			68	16		11	17		22
Leucon americanus	6154040110															
Libinia dubia	6187010901															
Lyonsia hyalina	5520050206															
Macoma tenta	5515310120	3	1		47	27					21	4	30	17	10	
Mediomastus ambiseta	5001600401	18	9	3	14	32			4	1	12	9	27	24	10	
Melinna cristata	5001670501															
Melita nitida	6169211006															

New Bedford Harbor - 1999	Barcode	5035017	5036015	5036017	5037015	5037016	5038015	5038017	5039015	5039017	5040015	5040017	5041015	5041017	5042015	5042017
Area 2 - All Taxa	Station	217	218	218	220	220	221	221	222	222	224	224	225	225	226	226
	Replicate	3	1	3	1	2	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code															
Mercenaria mercenaria	5515471101	4	3		44	7			6	7	1	4	74	153		
Microdeutopus gryllotalpa	6169060401															
Microphthalmus aberrans	5001210202															
Microphthalmus sczelkowii	5001210201															
Microprotopus raneyi	6169260901															
Mitrella lunata	5105030207					1										
Monocorophium ascheriusicum	6169150201															
Mulinia lateralis	5515250301	598	3	1	854	168			11	15	406	762	339	382	29	
Mya arenaria	5517010201		6													
Mysella planulata	5515100110															
Mysidacea spp.	6151SPP		1													
Neanthes succinea	5001240309	7	5	7	1				1	6	4	2		1	3	2
Nereidae spp.	500124SPP															
Notomastus latericeus	5001600306		19						1						1	
Nucula annulata	5502020205															
Nucula spp.	55020202SPP															
Odostomia eburnea	5108010134															
Oligochaeta spp.	5003SPP	14	251	288	13	3	4	7	36	40	12	1	13		11	
Oxyurostylis smithi	6154050801															
Pagurus annulipes	6183060227															
Pagurus spp.	61830602SPP												1			
Palaemonetes vulgaris	6179110304															
Paracaprella tenuis	6189020801															
Paranaitis speciosa	5001130801															
Pectinaria gouldii	5001660302		1		172	60			4	4	51	67	100	63	70	2
Petricola pholadiformis	5515480102	1				1							4	2		
Phyllodoce arenae	5001131410		2		2							1				
Phyllodocidae spp.	500113SPP															
Pinnixa sayana	6189060409											2				
Pinnixa spp.	61800604SPP												1	1		
Pista spp.	50016807SPP															
Pitar morrhuana	5515471201				1								1			
Platynereis dumerilii	5001240503															
Podarke obscura	5001211502				3	1				2	6	15	2			
Polycirrus eximius	5001680804															
Polycirrus spp.	50016808SPP															
Polydora cornuta	5001430448		47	4		1	1	1	9	18	1			3	4	1
Polydora neocaeca	50014304NEOC															

New Bedford Harbor - 1999	Barcode	5035017	5036015	5036017	5037015	5037016	5038015	5038017	5039015	5039017	5040015	5040017	5041015	5041017	5042015	5042017
Area 2 - All Taxa	Station	217	218	218	220	220	221	221	222	222	224	224	225	225	226	226
	Replicate	3	1	3	1	2	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code															
Polydora spp.	50014304SPP															
Polygordius sp. A	50020501SP01	1														
Polyonyx gibbesi	6183120401															
Porcellanidae spp.	618312SPP									1						
Prionospio (Minuspio) perkinsi	5001430517			10	3	8			2		1	1	19	6	4	
Prionospio heterobranchia	5001430503		9							4						
Rictaxis punctostriatus	5110010403				4	1					2	3	4		14	
Sabellaria vulgaris	5001650202															
Scolelepis bousfieldi	5001432002															
Scolelepis texana	5001432006		7													
Scoletoma tenuis	50013101TENU															
Seila adamsi	5103460401															
Solemya velum	5504010101															
Spio setosa	5001430704		13													
Stenothoidae spp.	616948SPP															
Sthenelais boa	5001060302															
Streblospio benedicti	5001431801	169	928	223	79	50	5	7	69	53	52	100	137	141	31	11
Tellina agilis	5515310205	1			23	4	1		1		3	2	7	15	1	
Tharyx acutus	5001500305	7	36	15	68	15		2	69	54		7	6	83	5	
Thyasira gouldii	5515020301													1		
Turbonilla aequalis	5108010224															
Turbonilla spp.	51080102SPP															
Upogebia affinis	6183170102															
Xanthidae spp.	618902SPP															
Grand Total		941	1416	621	1382	436	16	26	312	298	608	1035	802	932	257	42

New Bedford Harbor - 1999	Barcode	5043015	5043017	5044015	5044017	5045015	5045017	5046015	5046017	5047015	5047017	5048015	5048016	5049015	5049017	5050015
Area 2 - All Taxa	Station	227	227	230	230	231	231	235	235	236	236	237	237	240	240	241
	Replicate	1	3	1	3	1	3	1	3	1	3	1	2	1	3	1
Taxon	NODC Code															
Acteocina canaliculata	5110040103			4		6	15	4	1	2	10			11	6	
Ampelisca abdita	6169020108															
Ampelisca vadorum	6169020109										1					
Amphiporus angulatus	4306050101	1		12	1			1	1		1					
Amphitrite johnstoni	5001680104															
Anadara transversa	5506010201															
Ancistrosyllis hartmanae	5001220102															
Anomia simplex	5509090202					1					3					
Autolytus prolifer	5001230104															
Balanus venustus	6134020121												2			
Bittium alternatum	5103460105															
Bivalvia spp.	55SPP					1										
Boccardiella hamata	5001432801												2			
Boonea seminuda	5108011403					1					17		8			
Brania clavata	5001230902												1			
Callinectes sapidus	6189010301			1	1											
Capitella capitata complex	5001600101	10														
Capitella jonesi	50016001JONE															
Capitellidae spp.	500160SPP														1	
Carinomella lactea	4302010201									2	2					
Cerebratulus lacteus	4303020209											1				
Cerebratulus spp.	43030202SPP															
Cirratulidae spp.	500150SPP			4	2								84			
Cirratulus sp. 1	50015001SP01												1			
Coryphella pellucida	5141040108			1												
Crangon septemspinosa	6179220103				2				1			1				
Crepidula convexa	5103640205					3										
Crepidula fornicata	5103640204	3									8		18			1
Crepidula plana	5103640207					1					4					1
Crepidula spp.	51036402SPP					5					1		10			
Cymadusa compta	6169040201												1			
Decapoda spp.	6175SPP															
Dipolydora giardi	5001430401															
Dipolydora socialis	5001430402												8			
Dodecaceria spp.	50015005SPP												7			
Dorvillea (Schistomeringos) *rudolphii*	5001360504				1											
Drilonereis longa	5001330103											2				
Dyspanopeus sayi	6189020703					1					3		3			1

New Bedford Harbor - 1999	Barcode	5043015	5043017	5044015	5044017	5045015	5045017	5046015	5046017	5047015	5047017	5048015	5048016	5049015	5049017	5050015
Area 2 - All Taxa	Station	227	227	230	230	231	231	235	235	236	236	237	237	240	240	241
	Replicate	1	3	1	3	1	3	1	3	1	3	1	2	1	3	1
Taxon	NODC Code															
Edotia triloba	6162020703															
Edwardsia elegans	3759010101					1										
Ensis directus	5515290301															
Epitomapta roseola	8178010206					1										
Eteone heteropoda	5001130207		4	38	2	12		2	1	5	6	2	8	1	3	3
Eteone spp.	50011302SPP															1
Eteone trilineata	5001130209															
Euclymene collaris	5001631102															
Eulalia bilineata	5001130304															
Eumida sanguinea	5001131101				3	1							2			
Eurypanopeus depressus	6189020501															
Exogone dispar	5001230701															
Fargoa bartschi	5108011501															
Gastropoda spp.	51SPP						1									
Gemma gemma	5515471301															
Glycera americana	5001270104			1	1	1				3	4	1	3	2		1
Glycera sp. 1	50012701SP01			4		3			1		3	1	1			
Glycinde solitaria	5001280104			17	3	10	7		3	4	3		3	1	7	
Gyptis vittata	5001210103			8	7	8	9	3	6	6	4		1	3	1	8
Haminoea solitaria	5110120102	2				1								1		
Heteromastus filiformis	5001600201	1										2	8	2		
Hippolyte spp.	61791601SPP												1			
Hippolyte zostericola	6179160104															
Hippolytidae spp.	617916SPP															
Hutchinsoniella macracantha	6102010101											4				
Hydrobia truncata	5103130101															
Hydroides dianthus	5001730901												18			
Ianiropsis sp. 1	61630607SP01															
Laevicardium mortoni	5515220401		2			1										
Leitoscoloplos robustus	5001400304	2	79	3	4	24	1	7	17		4	2			35	4
Leitoscoloplos spp.	50014003SPP	114		2	7		8	8		19	2		1	16		8
Leucon americanus	6154040110	1														
Libinia dubia	6187010901										2					
Lyonsia hyalina	5520050206			2												
Macoma tenta	5515310120	7	5	151	11	61	34	19	100	63	50		2	27	39	8
Mediomastus ambiseta	5001600401	18	7	115	89	134	13	8	14	50	284	109	107	20	71	154
Melinna cristata	5001670501									1						
Melita nitida	6169211006															

New Bedford Harbor - 1999	Barcode	5043015	5043017	5044015	5044017	5045015	5045017	5046015	5046017	5047015	5047017	5048015	5048016	5049015	5049017	5050015
Area 2 - All Taxa	Station	227	227	230	230	231	231	235	235	236	236	237	237	240	240	241
	Replicate	1	3	1	3	1	3	1	3	1	3	1	2	1	3	1
Taxon	NODC Code															
Mercenaria mercenaria	5515471101	3	6	227	19	106	8	1		5	71		7		1	3
Microdeutopus gryllotalpa	6169060401															
Microphthalmus aberrans	5001210202															
Microphthalmus sczelkowii	5001210201															
Microprotopus raneyi	6169260901				1											1
Mitrella lunata	5105030207				1									1		
Monocorophium acherlusicum	6169150201															
Mulinia lateralis	5515250301	261	190	3018	204	742	832	196	137	262	730		4	761	2265	59
Mya arenaria	5517010201															
Mysella planulata	5515100110															
Mysidacea spp.	6151SPP															
Neanthes succinea	5001240309	1	8		1	1	3	8	5	5	1				2	
Nereidae spp.	500124SPP															
Notomastus latericeus	5001600306											3				
Nucula annulata	5502020205									1	11					
Nucula spp.	55020202SPP	1					4									
Odostomia eburnea	5108010134			1												
Oligochaeta spp.	5003SPP		8	7	6	28	3	4	6	6	12	28	71	3		
Oxyurostylis smithi	6154050801				1							1				
Pagurus annulipes	6183060227															
Pagurus spp.	61830602SPP	1									8					
Palaemonetes vulgaris	6179110304															
Paracaprella tenuis	6189020801															
Paranaitis speciosa	5001130801															
Pectinaria gouldii	5001660302	11	3	161	74	60	60	24	82	48	92	6	6	27	24	55
Petricola pholadiformis	5515480102	1								1	2			3		
Phyllodoce arenae	5001131410				1						1	1				1
Phyllodocidae spp.	500113SPP															
Pinnixa sayana	6189060409			3	4				2		2					
Pinnixa spp.	61800604SPP			5	5			1		1	5		1			
Pista spp.	50016807SPP															
Pitar morrhuana	5515471201									1	1					
Platynereis dumerilii	5001240503															
Podarke obscura	5001211502			2	9	2				1	1					
Polycirrus eximius	5001680804											1	1			
Polycirrus spp.	50016808SPP															
Polydora cornuta	5001430448	21	55	1		2				1	4	2	56			4
Polydora neocaeca	50014304NEOC												9			

New Bedford Harbor - 1999	Barcode	5043015	5043017	5044015	5044017	5045015	5045017	5046015	5046017	5047015	5047017	5048015	5048016	5049015	5049017	5050015
Area 2 - All Taxa	Station	227	227	230	230	231	231	235	235	236	236	237	237	240	240	241
	Replicate	1	3	1	3	1	3	1	3	1	3	1	2	1	3	1
Taxon	NODC Code															
Polydora spp.	50014304SPP															
Polygordius sp. A	50020501SP01															
Polyonyx gibbesi	6183120401										1					
Porcellanidae spp.	618312SPP															
Prionospio (Minuspio) perkinsi	5001430517	4		7	6	15	3		4	25	28	8	31	4	5	23
Prionospio heterobranchia	5001430503		8			10				1		21				
Rictaxis punctostriatus	5110010403	1		47	5	29	14	16	5	17	24			6	11	2
Sabellaria vulgaris	5001650202															
Scolelepis bousfieldi	5001432002									1						
Scolelepis texana	5001432006															
Scoletoma tenuis	50013101TENU															
Seila adamsi	5103460401															
Solemya velum	5504010101												1			
Spio setosa	5001430704															
Stenothoidae spp.	616948SPP															
Sthenelais boa	5001060302															
Streblospio benedicti	5001431801	80	221	34	166	155	4	6	2		55	90	105	4	20	30
Tellina agilis	5515310205	2	3	26	10	35	5	8	4	9	27		6	9	9	6
Tharyx acutus	5001500305	1	1	81	71	18		3		3	6	498	928	8	2	14
Thyasira gouldii	5515020301	1			1						1		1			
Turbonilla aequalis	5108010224															
Turbonilla spp.	51080102SPP			1												
Upogebia affinis	6183170102											1	1			
Xanthidae spp.	618902SPP															
Grand Total		548	600	3984	719	1480	1024	319	392	543	1495	785	1528	910	2502	388

New Bedford Harbor - 1999	Barcode	5050017	5051015	5051017	5052016	5052017	5054015	5054017	5055015	5055017	5056015	5056017	5057015	5057017	
Area 2 - All Taxa	Station	241	242	242	245	245	247	247	249	249	250	250	253	253	
	Replicate	3	1	3	2	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code														Total
Acteocina canaliculata	5110040103	1		2											68
Ampelisca abdita	6169020108						3								3
Ampelisca vadorum	6169020109		1												2
Amphiporus angulatus	4306050101			8											30
Amphitrite johnstoni	5001680104														4
Anadara transversa	5506010201		1												1
Ancistrosyllis hartmanae	5001220102														1
Anomia simplex	5509090202	2	2			2					2				16
Autolytus prolifer	5001230104										2				2
Balanus venustus	6134020121		3								4	12			21
Bittium alternatum	5103460105		1												1
Bivalvia spp.	55SPP		1												5
Boccardiella hamata	5001432801		2	4							10				18
Boonea seminuda	5108011403	6	26	40		7					1	156			269
Brania clavata	5001230902										1				2
Callinectes sapidus	6189010301														5
Capitella capitata complex	5001600101					2	226	106	28	1		5			518
Capitella jonesi	50016001JONE			1			5	11	5	2	1				109
Capitellidae spp.	500160SPP														4
Carinomella lactea	4302010201				1										5
Cerebratulus lacteus	4303020209														1
Cerebratulus spp.	43030202SPP														1
Cirratulidae spp.	500150SPP								1		1				149
Cirratulus sp. 1	50015001SP01														4
Coryphella pellucida	5141040108														1
Crangon septemspinosa	6179220103														5
Crepidula convexa	5103640205														22
Crepidula fornicata	5103640204	2	36	7		72			12		117	126			440
Crepidula plana	5103640207	3	2	1		10			2		10	6			46
Crepidula spp.	51036402SPP	2		10	13							4			56
Cymadusa compta	6169040201					1		1							3
Decapoda spp.	6175SPP														1
Dipolydora giardi	5001430401										4				4
Dipolydora socialis	5001430402		2												10
Dodecaceria spp.	50015005SPP										52				59
Dorvillea (Schistomeringos) rudolphii	5001360504														1
Drilonereis longa	5001330103														2
Dyspanopeus sayi	6189020703	2	1		1	7		1			4	4		1	43

New Bedford Harbor - 1999	Barcode	5050017	5051015	5051017	5052016	5052017	5054015	5054017	5055015	5055017	5056015	5056017	5057015	5057017	
Area 2 - All Taxa	Station	241	242	242	245	245	247	247	249	249	250	250	253	253	
	Replicate	3	1	3	2	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code														Total
Edotia triloba	6162020703														1
Edwardsia elegans	3759010101	1	2												6
Ensis directus	5515290301		1												1
Epitomapta roseola	8178010206														1
Eteone heteropoda	5001130207	4	5	2	10		7	1	5	1		4			595
Eteone spp.	50011302SPP										1				18
Eteone trilineata	5001130209														1
Euclymene collaris	5001631102		1												1
Eulalia bilineata	5001130304										1				1
Eumida sanguinea	5001131101		4	1	1	3			3		3	7			40
Eurypanopeus depressus	6189020501														1
Exogone dispar	5001230701								1						1
Fargoa bartschi	5108011501				2										2
Gastropoda spp.	51SPP		1												4
Gemma gemma	5515471301		1		30	17	1								124
Glycera americana	5001270104	2	1	4	2						1				32
Glycera sp. 1	50012701SP01	1	4									1			20
Glycinde solitaria	5001280104	3	11	5			1	1							108
Gyptis vittata	5001210103	4	2	4								1			161
Haminoea solitaria	5110120102		2	5	2										104
Heteromastus filiformis	5001600201		6	1	14	2	67	68	2					1	245
Hippolyte spp.	61791601SPP												1	1	12
Hippolyte zostericola	6179160104							10					4	9	27
Hippolytidae spp.	617916SPP			1											1
Hutchinsoniella macracantha	6102010101														4
Hydrobia truncata	5103130101			2											2
Hydroides dianthus	5001730901		1	3							32				58
Ianiropsis sp. 1	61630607SP01														1
Laevicardium mortoni	5515220401		1			1									7
Leitoscoloplos robustus	5001400304		16		1	47			20			9			983
Leitoscoloplos spp.	50014003SPP	12		6	8					12	2		2	5	1099
Leucon americanus	6154040110														1
Libinia dubia	6187010901														3
Lyonsia hyalina	5520050206														2
Macoma tenta	5515310120	9	14	12	2										854
Mediomastus ambiseta	5001600401	123	574	345	390	4			17	10	2	7			3097
Melinna cristata	5001670501		1												2
Melita nitida	6169211006														4

New Bedford Harbor - 1999	Barcode	5050017	5051015	5051017	5052016	5052017	5054015	5054017	5055015	5055017	5056015	5056017	5057015	5057017	
Area 2 - All Taxa	Station	241	242	242	245	245	247	247	249	249	250	250	253	253	
	Replicate	3	1	3	2	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code														Total
Mercenaria mercenaria	5515471101	7	15	29	21		1		12	8	1	1		2	3823
Microdeutopus gryllotalpa	6169060401							6							8
Microphthalmus aberrans	5001210202														1
Microphthalmus sczelkowii	5001210201														1
Microprotopus raneyi	6169260901						1								3
Mitrella lunata	5105030207	6				1									10
Monocorophium ascheriusicum	6169150201								6			1			7
Mulinia lateralis	5515250301	13	109	1330	6		19	8	2						21374
Mya arenaria	5517010201								1						43
Mysella planulata	5515100110														4
Mysidacea spp.	6151SPP														1
Neanthes succinea	5001240309	1			2	21	2	7	6			5			166
Nereidae spp.	500124SPP														3
Notomastus latericeus	5001600306		5									2			58
Nucula annulata	5502020205	1									1				15
Nucula spp.	55020202SPP														5
Odostomia eburnea	5108010134														1
Oligochaeta spp.	5003SPP	12	53	18	65	8	20	49	3	5	57	10	2		2278
Oxyurostylis smithi	6154050801														3
Pagurus annulipes	6183060227		2												2
Pagurus spp.	61830602SPP			1											11
Palaemonetes vulgaris	6179110304												1		2
Paracaprella tenuis	6189020801														5
Paranaitis speciosa	5001130801	1													1
Pectinaria gouldii	5001660302	61	31	23	1	2						1			1544
Petricola pholadiformis	5515480102	1													21
Phyllodoce arenae	5001131410		1		3				1						16
Phyllodocidae spp.	500113SPP	2													2
Pinnixa sayana	6189060409														13
Pinnixa spp.	61800604SPP						1								22
Pista spp.	50016807SPP											1			1
Pitar morrhuana	5515471201	2													6
Platynereis dumerilii	5001240503							4						1	5
Podarke obscura	5001211502	2	1	3					1		2	7			76
Polycirrus eximius	5001680804		1												3
Polycirrus spp.	50016808SPP										2				2
Polydora cornuta	5001430448	2	7	1	9	11	20	7	28	4	15	27		1	630
Polydora neocaeca	50014304NEOC			3							1				14

New Bedford Harbor - 1999	Barcode	5050017	5051015	5051017	5052016	5052017	5054015	5054017	5055015	5055017	5056015	5056017	5057015	5057017	
Area 2 - All Taxa	Station	241	242	242	245	245	247	247	249	249	250	250	253	253	
	Replicate	3	1	3	2	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code														Total
Polydora spp.	50014304SPP										2				2
Polygordius sp. A	50020501SP01														4
Polyonyx gibbesi	6183120401				1										2
Porcellanidae spp.	618312SPP														1
Prionospio (Minuspio) perkinsi	5001430517	25	35	4	13										296
Prionospio heterobranchia	5001430503		16	30	24	12	1		79	1	5	2			238
Rictaxis punctostriatus	5110010403	8	1	7	4										240
Sabellaria vulgaris	5001650202														1
Scolelepis bousfieldi	5001432002														1
Scolelepis texana	5001432006														8
Scoletoma tenuis	50013101TENU														1
Seila adamsi	5103460401			1								1			2
Solemya velum	5504010101														1
Spio setosa	5001430704														25
Stenothoidae spp.	616948SPP														3
Sthenelais boa	5001060302					1									1
Streblospio benedicti	5001431801	53	100	155	45	17	2	4	78	7		3			7932
Tellina agilis	5515310205	6	35	23	2				5		1	3			334
Tharyx acutus	5001500305	58	74	92	654	42		1	2		4		1		4999
Thyasira gouldii	5515020301			2	9										18
Turbonilla aequalis	5108010224			2											2
Turbonilla spp.	51080102SPP														1
Upogebia affinis	6183170102														2
Xanthidae spp.	618902SPP	1		1											2
Grand Total		439	1212	2189	1336	290	377	285	320	51	342	406	11	21	53852

New Bedford Harbor - 1999	Barcode	5058015	5058017	5060015	5060017	5061015	5061017	5062015	5062017	5063015	5063016	5064015	5064017	5065015	5065017	5066015	5066017
Area 3 - All Taxa	Station	304	304	306	306	309	309	310	310	311	311	317	317	318	318	323	323
	Replicate	1	3	1	3	1	3	1	3	1	2	1	3	1	3	1	3
Taxon	NODC Code																
Acteocina canaliculata	5110040103					15	10					7	14			29	10
Actiniaria spp.	3758SPP																
Actinothoe sp. 1	37600502SP01																
Ameroculodes sp. 1	61693708SP01											1					
Ampelisca abdita	6169020108				1	1		3				1	1			2	
Ampelisca macrocephala	6169020101				1												
Ampelisca spp.	61690201SPP	1			1	1											
Ampelisca vadorum	6169020109													2		1	1
Ampelisca verrilli	6169020110			3													
Ampharete finmarchica	5001670214																
Ampharetidae spp.	500167SPP									1							
Amphipoda spp.	6168SPP								2								
Amphiporus angulatus	4306050101		1	1		4	4			2		3					
Amphiporus bioculatus	4306050110																
Amphiporus cruentatus	4306050115													1		1	
Amphiporus groenlandicus	4306050124																
Ampithoe spp.	61690311SPP																
Ampithoe valida	6169040116										2						
Anachis lafresnayi	5105030306									2	3						
Anadara transversa	5506010201							1						1	2	6	3
Ancistrosyllis hartmanae	5001220102															1	
Anomia simplex	5509090202																
Aphelochaeta marioni	5001500307																
Aphelochaeta nr. monilaris	5001500301	1												5			
Apocorophium acutum	6169150213			1						2	1						
Arabella iricolor	5001330201																
Aricidea catherinae	5001410208									1		1		53	8		
Aricidea spp.	50014102SPP																
Astarte castanea	5515190110																
Asychis elongata	5001630103											2	3			1	
Axiognathus squamatus	8129030202																
Balanus venustus	6134020121			3		1			2								
Batea catherinensis	6169100101													1		2	
Bittium alternatum	5103460105		126		1				42	8	15			8		4	
Bivalvia spp.	55SPP			1					1				1				
Boccardiella hamata	5001432801	1	1							2	1			2			
Boonea seminuda	5108011403	2		5				7		2	15					1	

New Bedford Harbor - 1999	Barcode	5058015	5058017	5060015	5060017	5061015	5061017	5062015	5062017	5063015	5063016	5064015	5064017	5065015	5065017	5066015	5066017
Area 3 - All Taxa	Station	304	304	306	306	309	309	310	310	311	311	317	317	318	318	323	323
	Replicate	1	3	1	3	1	3	1	3	1	2	1	3	1	3	1	3
Taxon	NODC Code																
Brania clavata	5001230902									2	2						
Brania wellfleetensis	5001230903	2		9						67	8			23			
Busycon carica	5105070101																
Cabira incerta	5001220401																
Callinectes sapidus	6189010301											1					
Cancer irroratus	6188030108												1	2		4	5
Cancer spp.	61880301SPP																
Capitella capitata complex	5001600101		3						3								
Capitella jonesi	50016001JONE	2	2		4			1	1	2						1	
Carazziella hobsonae	5001432706											1	2				
Carinoma tremaphoros	4302020101																
Carinomella lactea	4302010201					2				1		3				3	
Caulleriella sp. A	50015002SP01																
Caulleriella sp. B	50015002SP02			2						151	42			12	1		
Cerastoderma pinnulatum	5515220601																
Cerebratulus lacteus	4303020209				3												
Cerebratulus spp.	43030202SPP																
Ceriantheopsis americanus	3743010201																
Chaetopleura apiculata	5303060103																
Chaetozone spp.	50015004SPP													1			
Cirratulidae spp.	500150SPP									1	1						
Cirratulus sp. 1	50015001SP01									2	2						
Cirriformia grandis	5001500104																
Cirrophorus furcatus	5001410606																
Clymenella torquata	5001630202			1								1				1	
Corbula contracta	5517020201	2															
Corophiidae spp.	616915SPP			2													
Coryphella rufibranchialis	514104011001																
Crangon septemspinosa	6179220103																
Crangonyx pseudogracilis	6169570101									32					2	1	
Crassinella lunulata	5515200102	2												1			
Crassostrea virginica	5510020102		1														
Crepidula fornicata	5103640204	4	108	20	1	1		8	36	7	102			2		2	
Crepidula plana	5103640207		8	4	6			4	6	2	7				1	6	1
Crepidula spp.	51036402SPP															10	
Cumingia tellinoides	5515350302																
Cylichna oryza	5110040208											16	101		1	7	3

New Bedford Harbor - 1999	Barcode	5058015	5058017	5060015	5060017	5061015	5061017	5062015	5062017	5063015	5063016	5064015	5064017	5065015	5065017	5066015	5066017
Area 3 - All Taxa	Station	304	304	306	306	309	309	310	310	311	311	317	317	318	318	323	323
	Replicate	1	3	1	3	1	3	1	3	1	2	1	3	1	3	1	3
Taxon	NODC Code																
Decapoda spp.	6175SPP													2			
Diaphana minuta	5110090101					1											
Diopatra cuprea	5001290201															3	
Dipolydora commensalis	5001430410																
Dipolydora concharum	5001430414									1							
Dipolydora socialis	5001430402		3							2				3		2	
Dorvillea (Schistomeringos) rudolphii	5001360504																
Drilonereis longa	5001330103															1	
Dyspanopeus sayi	6189020703	2	14						2	6	3			2	1		1
Edotia triloba	6162020703																
Edwardsia elegans	3759010101									1		1					1
Elasmopus laevis	6169210301										4						
Eobrolgus spinosus	6169421901									42	11			2			
Epitomapta roseola	8178010206										1						
Erichthonius brasiliensis	6169150302															15	
Eteone heteropoda	5001130207			1	1	9	4										
Eteone spp.	50011302SPP		1														
Euclymene collaris	5001631102														1		6
Eumida sanguinea	5001131101	1	22					1	1	20	3			7	2	6	1
Eusyllis lamelligera	5001230606																
Exogone dispar	5001230701									24					4	3	
Exogone spp.	50012307SPP																
Fargoa bartschi	5108011501																
Gammarus mucronatus	6169210709																
Gammarus oceanicus	6169210711											1					
Gammarus spp.	61692107SPP											1					
Gastropoda spp.	51SPP					2											3
Glycera americana	5001270104			2		2			1	3						4	3
Glycera sp. 1	50012701SP01	6		3	3	2	2	2	5	10	1	1		2		2	2
Glyceridae spp.	500127SPP																
Glycinde solitaria	5001280104	5					1					10	19			17	11
Goniadidae spp.	500128SPP						1										
Gyptis vittata	5001210103											5				1	
Haminoea solitaria	5110120102					264	132					1					
Harmothoe extenuata	5001020803																
Harmothoe ? nodosa	5001020828																
Heterocrypta granulata	6187020801																

New Bedford Harbor - 1999	Barcode	5058015	5058017	5060015	5060017	5061015	5061017	5062015	5062017	5063015	5063016	5064015	5064017	5065015	5065017	5066015	5066017
Area 3 - All Taxa	Station	304	304	306	306	309	309	310	310	311	311	317	317	318	318	323	323
	Replicate	1	3	1	3	1	3	1	3	1	2	1	3	1	3	1	3
Taxon	NODC Code																
Heteromastus filiformis	5001600201	2	10	1				3	9	1	1					2	
Heteromysis formosa	6153010802																
Hexapanopeus angustifrons	6189020601																
Hippolyte spp.	61791601SPP															1	
Hippolytidae spp.	617916SPP															1	
Hutchinsoniella macracantha	6102010101													1			
Hyas araneus	6187010203									1							
Hyas coarctatus	6187010202															1	
Hydroides dianthus	5001730901			1													
Ilyanassa trivittata	5105080202						1	1	1			6				3	
Jassa marmorata	6169270303								1								
Kurtziella cerina	5106021102			2												1	
Lacuna vincta	5103090305		2								1						
Laevicardium mortoni	5515220401	3															3
Leitoscoloplos acutus	5001400305				16					3				2	1		
Leitoscoloplos robustus	5001400304				1	16	5	1	1	1							
Leitoscoloplos spp.	50014003SPP																
Lembos smithi	6169060303	3	6							57	4			6	8		
Lepidonotus sublevis	5001021104				1												
Leptochelia dubia	6157150202									2							
Leucon americanus	6154040110					1											
Levinsenia gracilis	5001410801																
Libinia dubia	6187010901																
Listriella barnardi	6169330301									1				2			
Luconacia incerta	6171011101															2	
Lumbrineridae spp.	500131SPP		1														
Lyonsia hyalina	5520050206																
Lysianopsis alba	6169345304									2							
Macoma tenta	5515310120	1										10	45			2	8
Macrochaeta sp. 1	50015102SP01																
Maldanidae spp.	500163SPP												1			5	
Mediomastus ambiseta	5001600401	256	46		16	1		16	84	100	48	456	789	7		629	20
Melanella conoidea	5103530107																
Melinna cristata	5001670501										1	2	2			1	2
Mercenaria mercenaria	5515471101					9	4										
Microdeutopus anomalus	6169060402															2	
Microphthalmus sczelkowii	5001210201									1							

New Bedford Harbor - 1999	Barcode	5058015	5058017	5060015	5060017	5061015	5061017	5062015	5062017	5063015	5063016	5064015	5064017	5065015	5065017	5066015	5066017
Area 3 - All Taxa	Station	304	304	306	306	309	309	310	310	311	311	317	317	318	318	323	323
	Replicate	1	3	1	3	1	3	1	3	1	2	1	3	1	3	1	3
Taxon	NODC Code																
Microprotopus raneyi	6169260901															7	
Micrura spp.	43030205SPP																
Mitrella lunata	5105030207		2			3				3	9	1		3		52	2
Montacuta percompressa	5515100407										1						
Monticellina baptisteae	50015003BAPT																
Monticellina dorsobranchialis	5001500310																
Mulinia lateralis	5515250301					85	38		1			2	38				
Mysella planulata	5515100110																
Mytilidae spp.	550701SPP		1	1						1							
Mytilus edulis	5507010101										31						
Neanthes succinea	5001240309	1	1		1	11	25	2	5							4	
Nemertea spp.	43SPP		1	3						3						1	
Nephtys cornuta	5001250104																
Nephtys incisa	5001250115	1										3	5				3
Nephtys picta	5001250117			2	2					1				3	1		
Nereis arenaceodonta	5001240408		2														
Nereis grayi	5001240409																
Nereis spp.	50012404SPP										1						
Neverita duplicata	5103760407															1	
Ninoe nigripes	5001310204											3	7			1	
Notocirrus spiniferus	5001330301																
Notomastus latericeus	5001600306															1	1
Nucula annulata	5502020205						2		1			18	41				2
Nucula delphinodonta	5502020206																
Nucula proxima	5502020204	1	3													46	
Nudibranchia spp.	5127SPP																
Odontosyllis fulgurans	5001231304									1				1			
Oligochaeta spp.	5003SPP	10	7					2		78	28	20	41	70	12	82	
Onuphidae spp.	500129SPP					2											
Ophiura spp.	81270106SPP																
Ophiuroidea spp.	8120SPP																
Owenia fusiformis	5001640102																
Oxyurostylis smithi	6154050801				1									3			
Pagurus annulipes	6183060227			2	1					4			1	2		8	2
Pagurus spp.	61830602SPP																
Panopeus herbstii	6189020801																
Paracaprella tenuis	6171010901													3		3	

New Bedford Harbor - 1999	Barcode	5058015	5058017	5060015	5060017	5061015	5061017	5062015	5062017	5063015	5063016	5064015	5064017	5065015	5065017	5066015	5066017
Area 3 - All Taxa	Station	304	304	306	306	309	309	310	310	311	311	317	317	318	318	323	323
	Replicate	1	3	1	3	1	3	1	3	1	2	1	3	1	3	1	3
Taxon	NODC Code																
Paradoneis lyra	5001411201																
Paraninoe brevipes	5001310203																
Paraonis fulgens	5001410302																
Parapionosyllis longicirrata	5001231701		1	5						1					1		
Parougia caeca	5001360505			2													
Pectinaria gouldii	5001660302	6	7		1	5	1	1	2	5	1	10	10		1	5	1
Petricola pholadiformis	5515480102																
Phascolion strombi	7200020401													1			
Phascolopsis gouldii	7200010501																
Pherusa affinis	5001540304																
Phoxocephalus holbolli	6169420702																
Phyllodoce arenae	5001131410	1							1							1	
Pinnixa chaetopterana	6189060405													1			
Pinnixa sayana	6189060409									2				1	1	3	
Pinnixa spp.	61890604SPP												1		1		
Pinnotheridae spp.	618906SPP																
Pisione remota	5001070101																
Pista cristata	5001680701													1			
Pista maculata	5001680705																
Pista palmata	5001680707																
Pista spp.	50016807SPP								1								
Pitar morrhuana	5515471201																
Platynereis dumerilii	5001240503									2	6			4		9	
Podarke obscura	5001211502	1	10	1		1				10	1	1		9		3	1
Polycirrus eximius	5001680804									124	15			63	12		
Polycirrus spp.	50016808SPP									8							
Polydora cornuta	5001430448	14	2			1	2	5	6								
Polydora websteri	5001430412		3														
Polygordius sp. A	50020501SP01	4		5	18			11		87	62	10		175	127	32	6
Polyonyx gibbesi	6183120401																
Priapulus caudatus	7400010101																
Prionospio (Minuspio) perkinsi	5001430517	6				2						67	111		1	30	1
Prionospio heterobranchia	5001430503	117	45		16	6		2	1	97	14	4		17	1	7	
Propebela turricula	5106020601																
Protodorvillea gaspeensis	5001360202			1						6	2			12		2	
Ptilanthura tenuis	6160010301																
Pythinella cuneata	5515090301																

New Bedford Harbor - 1999	Barcode	5058015	5058017	5060015	5060017	5061015	5061017	5062015	5062017	5063015	5063016	5064015	5064017	5065015	5065017	5066015	5066017
Area 3 - All Taxa	Station	304	304	306	306	309	309	310	310	311	311	317	317	318	318	323	323
	Replicate	1	3	1	3	1	3	1	3	1	2	1	3	1	3	1	3
Taxon	NODC Code																
Rhepoxynius hudsoni	6169421502			1	2						1						
Rictaxis punctostriatus	5110010403					4	1					7	24			10	
Rudilemboides naglei	6169061201			1	1					11	4			5		5	
Saccoglossus kowalevskii	8201010302	1														1	
Scolelepis bousfieldi	5001432002	3										2	7			42	5
Scolelepis spp.	50014320SPP																
Scolelepis texana	5001432006			28	24												
Scoletoma acicularum	5001310149																
Scoletoma hebes	5001310140																
Scoletoma tenuis	50013101TENU	6												1	2		
Scoloplos (Leodamus) rubra	5001400307																
Seila adamsi	5103460401									4							
Solemya velum	5504010101									1							1
Sphaerodoropsis minuta	5001260201																
Sphaerosyllis longicauda	5001230817													1			
Sphaerosyllis taylori	5001230811	1											3			3	
Spio setosa	5001430704																
Spiochaetopterus oculatus	5001490303					1						1	1	1		1	
Spionidae spp.	500143SPP																
Spiophanes bombyx	5001431001			3	4					1							
Sthenelais boa	5001060302	2								2				1			
Streblospio benedicti	5001431801	1				10		4	13								
Streptosyllis ? varians	5001231602										2			3			
Syllidae spp.	500123SPP									7							
Syllides cf. verrilli	5001231508CF			1						9							
Tectonatica pusilla	5103760601				2					3	1	1	1	3	1		
Tellina agilis	5515310205	11	3	1	3	35	14	1	2			3	4			15	8
Tellinidae spp.	551531SPP		1														
Terebellidae spp.	500168SPP																
Thalassinidea spp.	6178SPP																
Tharyx acutus	5001500305	1								2	6		1			10	1
Thyasira gouldii	5515020301																
Turbellaria spp.	3901SPP																
Turbonilla aequalis	5108010224																
Turbonilla areolata	5108010209AR																
Turbonilla elegantula	5108010275																
Turbonilla interrupta	5108010209		1	1	6								2				

New Bedford Harbor - 1999	Barcode	5058015	5058017	5060015	5060017	5061015	5061017	5062015	5062017	5063015	5063016	5064015	5064017	5065015	5065017	5066015	5066017
Area 3 - All Taxa	Station	304	304	306	306	309	309	310	310	311	311	317	317	318	318	323	323
	Replicate	1	3	1	3	1	3	1	3	1	2	1	3	1	3	1	3
Taxon	NODC Code																
Turbonilla spp.	51080102SPP															22	
Turbonilla sumneri	5108011102																
Turritellopsis acicula	5103330201		7														
Typosyllis alternata	5001230501																
Typosyllis regulata	5001230513																
Unciola dissimilis	6169150706																
Unciola irrorata	6169150703																
Unciola spp.	61691507SPP																
Xanthidae spp.	618902SPP	1								1	2					2	
Yoldia limatula	5502040511												1				
Yoldia sapotilla	5502040513																
Yoldia spp.	55020405SPP															1	
Zaops ostreum	6189060202																1
Grand Total		485	452	120	138	498	247	76	231	1039	466	684	1278	534	193	1197	119

New Bedford Harbor - 1999	Barcode	5067015	5067017	5068015	5068017	5071015	5071017	5072015	5072017	5073015	5073017	5074015	5074017	5075015	5075017	5076015	5076017
Area 3 - All Taxa	Station	324	324	325	325	331	331	332	332	333	333	334	334	335	335	338	338
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code																
Acteocina canaliculata	5110040103	14	13	37	44	66	78	10	14			24	46		1	21	31
Actiniaria spp.	3758SPP			2													
Actinothoe sp. 1	37600502SP01					1											
Ameroculodes sp. 1	61693708SP01											1					
Ampelisca abdita	6169020108		1				1	1	7				1			1	
Ampelisca macrocephala	6169020101																
Ampelisca spp.	61690201SPP																
Ampelisca vadorum	6169020109			1					2					1			
Ampelisca verrilli	6169020110							2	2					30	1		
Ampharete finmarchica	5001670214														1		
Ampharetidae spp.	500167SPP																
Amphipoda spp.	6168SPP																
Amphiporus angulatus	4306050101		2		1	7	4		5				4	10			
Amphiporus bioculatus	4306050110																
Amphiporus cruentatus	4306050115										1						
Amphiporus groenlandicus	4306050124															1	
Ampithoe spp.	61690311SPP													1			
Ampithoe valida	6169040116																
Anachis lafresnayi	5105030306	3													2		
Anadara transversa	5506010201								1		3				1		
Ancistrosyllis hartmanae	5001220102																
Anomia simplex	5509090202																
Aphelochaeta marioni	5001500307										2						
Aphelochaeta nr. monilaris	5001500301																
Apocorophium acutum	6169150213																
Arabella iricolor	5001330201												1		1		
Aricidea catherinae	5001410208			8	18	9	6		3	2	10		17	133	6	87	9
Aricidea spp.	50014102SPP										3						
Astarte castanea	5515190110														1		
Asychis elongata	5001630103	2	7			5	2		5				5	2		1	
Axiognathus squamatus	8129030202										1						
Balanus venustus	6134020121										3				12		
Batea catherinensis	6169100101																
Bittium alternatum	5103460105														1		
Bivalvia spp.	55SPP																
Boccardiella hamata	5001432801																
Boonea seminuda	5108011403																

New Bedford Harbor - 1999	Barcode	5067015	5067017	5068015	5068017	5071015	5071017	5072015	5072017	5073015	5073017	5074015	5074017	5075015	5075017	5076015	5076017
Area 3 - All Taxa	Station	324	324	325	325	331	331	332	332	333	333	334	334	335	335	338	338
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code																
Brania clavata	5001230902																
Brania wellfleetensis	5001230903							1		6	8			17	2		
Busycon carica	5105070101																
Cabira incerta	5001220401										1						
Callinectes sapidus	6189010301										1						
Cancer irroratus	6188030108	1						4	2	2	4	2	1	3		1	
Cancer spp.	61880301SPP										2						
Capitella capitata complex	5001600101																
Capitella jonesi	50016001JONE					1											
Carazziella hobsonae	5001432706													1			1
Carinoma tremaphoros	4302020101																
Carinomella lactea	4302010201	4	2		2	6	5		1				4	4	1	1	
Caulleriella sp. A	50015002SP01																
Caulleriella sp. B	50015002SP02													3			1
Cerastoderma pinnulatum	5515220601												1				
Cerebratulus lacteus	4303020209																
Cerebratulus spp.	43030202SPP																
Ceriantheopsis americanus	3743010201											1	1			1	
Chaetopleura apiculata	5303060103										2						
Chaetozone spp.	50015004SPP										3						
Cirratulidae spp.	500150SPP				1						32			2	13		
Cirratulus sp. 1	50015001SP01																
Cirriformia grandis	5001500104																
Cirrophorus furcatus	5001410606			1		3		1	5	1	1			2	3		
Clymenella torquata	5001630202																
Corbula contracta	5517020201																
Corophiidae spp.	616915SPP																
Coryphella rufibranchialis	514104011001												1				
Crangon septemspinosa	6179220103							1	1								
Crangonyx pseudogracilis	6169570101										2						
Crassinella lunulata	5515200102									2	5						
Crassostrea virginica	5510020102														1		
Crepidula fornicata	5103640204										63				81		
Crepidula plana	5103640207										16		1		11		
Crepidula spp.	51036402SPP																
Cumingia tellinoides	5515350302									1	1						
Cylichna oryza	5110040208	103	96	19	121	18	35	11	124			29	109			13	81

New Bedford Harbor - 1999	Barcode	5067015	5067017	5068015	5068017	5071015	5071017	5072015	5072017	5073015	5073017	5074015	5074017	5075015	5075017	5076015	5076017
Area 3 - All Taxa	Station	324	324	325	325	331	331	332	332	333	333	334	334	335	335	338	338
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code																
Decapoda spp.	6175SPP									1							
Diaphana minuta	5110090101																
Diopatra cuprea	5001290201									2		1			1		
Dipolydora commensalis	5001430410																
Dipolydora concharum	5001430414																
Dipolydora socialis	5001430402											1		1			
Dorvillea (Schistomeringos) rudolphii	5001360504										7						
Drilonereis longa	5001330103										1						
Dyspanopeus sayi	6189020703										1				1		
Edotia triloba	6162020703								2								
Edwardsia elegans	3759010101		1		3			2	3	1			1	1		2	
Elasmopus laevis	6169210301									1							
Eobrolgus spinosus	6169421901														1		
Epitomapta roseola	8178010206																
Erichthonius brasiliensis	6169150302														2		
Eteone heteropoda	5001130207																
Eteone spp.	50011302SPP																
Euclymene collaris	5001631102						3	3	3			1	2		2		1
Eumida sanguinea	5001131101									2	2			1	1		
Eusyllis lamelligera	5001230606																
Exogone dispar	5001230701								7		1				1		
Exogone spp.	50012307SPP									2							
Fargoa bartschi	5108011501																
Gammarus mucronatus	6169210709																
Gammarus oceanicus	6169210711																
Gammarus spp.	61692107SPP																
Gastropoda spp.	51SPP	1			2											1	
Glycera americana	5001270104							8	14	1	4			1	3		
Glycera sp. 1	50012701SP01					1	2			2				2			
Glyceridae spp.	500127SPP	1															
Glycinde solitaria	5001280104	3	5	1		11	10		2			1					
Goniadidae spp.	500128SPP																
Gyptis vittata	5001210103										5			3			
Haminoea solitaria	5110120102		2			11	19										
Harmothoe extenuata	5001020803																
Harmothoe ? nodosa	5001020828																
Heterocrypta granulata	6187020801																

New Bedford Harbor - 1999	Barcode	5067015	5067017	5068015	5068017	5071015	5071017	5072015	5072017	5073015	5073017	5074015	5074017	5075015	5075017	5076015	5076017
Area 3 - All Taxa	Station	324	324	325	325	331	331	332	332	333	333	334	334	335	335	338	338
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code																
Heteromastus filiformis	5001600201					1				1	5			1	2		
Heteromysis formosa	6153010802																
Hexapanopeus angustifrons	6189020601										4						
Hippolyte spp.	61791601SPP																
Hippolytidae spp.	617916SPP																
Hutchinsoniella macracantha	6102010101																
Hyas araneus	6187010203																
Hyas coarctatus	6187010202																
Hydroides dianthus	5001730901																
Ilyanassa trivittata	5105080202				1										1		1
Jassa marmorata	6169270303																
Kurtziella cerina	5106021102												1				2
Lacuna vincta	5103090305																
Laevicardium mortoni	5515220401																
Leitoscoloplos acutus	5001400305	1								1	1			3			1
Leitoscoloplos robustus	5001400304						2										
Leitoscoloplos spp.	50014003SPP		1			2			1								
Lembos smithi	6169060303									4	12				5		
Lepidonotus sublevis	5001021104																
Leptochelia dubia	6157150202										1						
Leucon americanus	6154040110																
Levinsenia gracilis	5001410801											1	1				
Libinia dubia	6187010901																
Listriella barnardi	6169330301														1		
Luconacia incerta	6171011101																
Lumbrineridae spp.	500131SPP																
Lyonsia hyalina	5520050206					1											
Lysianopsis alba	6169345304										39						
Macoma tenta	5515310120	64	31	16	29	59	77	6	2			40	24			109	14
Macrochaeta sp. 1	50015102SP01																
Maldanidae spp.	500163SPP				2				9								1
Mediomastus ambiseta	5001600401	422	764	312	289	734	717	35	592	8	11	30	446	123	100	610	68
Melanella conoidea	5103530107																
Melinna cristata	5001670501	1	5	2	3	4		1	7				3			1	1
Mercenaria mercenaria	5515471101					3											
Microdeutopus anomalus	6169060402																
Microphthalmus sczelkowii	5001210201																

New Bedford Harbor - 1999	Barcode	5067015	5067017	5068015	5068017	5071015	5071017	5072015	5072017	5073015	5073017	5074015	5074017	5075015	5075017	5076015	5076017
Area 3 - All Taxa	Station	324	324	325	325	331	331	332	332	333	333	334	334	335	335	338	338
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code																
Microprotopus raneyi	6169260901																
Micrura spp.	43030205SPP																
Mitrella lunata	5105030207							6			11				11		
Montacuta percompressa	5515100407																
Monticellina baptisteae	50015003BAPT						3							4		1	
Monticellina dorsobranchialis	5001500310										41		2		2		
Mulinia lateralis	5515250301		1	49	225	54	68		2			10	77			29	15
Mysella planulata	5515100110																
Mytilidae spp.	550701SPP															1	
Mytilus edulis	5507010101																
Neanthes succinea	5001240309						2										1
Nemertea spp.	43SPP		1											8			
Nephtys cornuta	5001250104													6			
Nephtys incisa	5001250115	7	5	8	7	5	3					12	4			8	1
Nephtys picta	5001250117													1	1		
Nereis arenaceodonta	5001240408																
Nereis grayi	5001240409				1				2				1				
Nereis spp.	50012404SPP																
Neverita duplicata	5103760407		2									1					
Ninoe nigripes	5001310204	6	1	5	7	9	3	5	14		2	5	31	1		20	2
Notocirrus spiniferus	5001330301																
Notomastus latericeus	5001600306							1	3								
Nucula annulata	5502020205	106	146	14			19					16	41			113	40
Nucula delphinodonta	5502020206																
Nucula proxima	5502020204					10			2	1	6						
Nudibranchia spp.	5127SPP			1													
Odontosyllis fulgurans	5001231304										1				1		
Oligochaeta spp.	5003SPP	15	4	6	3	92	86	7	30	87	113	2	12	50	31	23	13
Onuphidae spp.	500129SPP	1											1				
Ophiura spp.	81270106SPP										2						
Ophiuroidea spp.	8120SPP																
Owenia fusiformis	5001640102															1	
Oxyurostylis smithi	6154050801	2		1			1					1		2	1	1	
Pagurus annulipes	6183060227			1				1		11	3			3	2		
Pagurus spp.	61830602SPP													5	1		
Panopeus herbstii	6189020801														1		
Paracaprella tenuis	6171010901																

New Bedford Harbor - 1999	Barcode	5067015	5067017	5068015	5068017	5071015	5071017	5072015	5072017	5073015	5073017	5074015	5074017	5075015	5075017	5076015	5076017
Area 3 - All Taxa	Station	324	324	325	325	331	331	332	332	333	333	334	334	335	335	338	338
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code																
Paradoneis lyra	5001411201																
Paraninoe brevipes	5001310203						1										
Paraonis fulgens	5001410302																
Parapionosyllis longicirrata	5001231701									2	1			36			
Parougia caeca	5001360505									2			3	1			
Pectinaria gouldii	5001660302	7	4	2	8	9	21	1	7		1	4	4			4	1
Petricola pholadiformis	5515480102																
Phascolion strombi	7200020401								1								
Phascolopsis gouldii	7200010501										1						
Pherusa affinis	5001540304																
Phoxocephalus holbolli	6169420702																
Phyllodoce arenae	5001131410							1	1	1		1		1	1		
Pinnixa chaetopterana	6189060405																
Pinnixa sayana	6189060409							4	2	4		1	1			4	
Pinnixa spp.	61890604SPP										1				1		
Pinnotheridae spp.	618906SPP							1									
Pisione remota	5001070101																
Pista cristata	5001680701									1							
Pista maculata	5001680705														1		
Pista palmata	5001680707										1						
Pista spp.	50016807SPP																
Pitar morrhuana	5515471201			5	4	3	1	1	11				2			15	4
Platynereis dumerilii	5001240503			1													
Podarke obscura	5001211502						1			11	59			1			
Polycirrus eximius	5001680804							1		23	10			3	1		
Polycirrus spp.	50016808SPP										37		1	5	1		
Polydora cornuta	5001430448										1						
Polydora websteri	5001430412																
Polygordius sp. A	50020501SP01	1	5		2	2		6			34			24	13	3	
Polyonyx gibbesi	6183120401						1	1									
Priapulus caudatus	7400010101																
Prionospio (Minuspio) perkinsi	5001430517	14	47	4	5	4	10	1	1	1		9	14	2		62	10
Prionospio heterobranchia	5001430503	1	1			1				7	24			2	1		
Propebela turricula	5106020601																
Protodorvillea gaspeensis	5001360202					10	8			5	8			34	3	2	2
Ptilanthura tenuis	6160010301																
Pythinella cuneata	5515090301											3					

New Bedford Harbor - 1999	Barcode	5067015	5067017	5068015	5068017	5071015	5071017	5072015	5072017	5073015	5073017	5074015	5074017	5075015	5075017	5076015	5076017
Area 3 - All Taxa	Station	324	324	325	325	331	331	332	332	333	333	334	334	335	335	338	338
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code																
Rhepoxynius hudsoni	6169421502																
Rictaxis punctostriatus	5110010403	24	25		15	15	14		3			2	20			2	2
Rudilemboides naglei	6169061201									5	11			2			
Saccoglossus kowalevskii	8201010302	1	1		2	10							4			13	5
Scolelepis bousfieldi	5001432002	42	41	4	7	1	1	4	29			3	12			16	3
Scolelepis spp.	50014320SPP																
Scolelepis texana	5001432006																
Scoletoma acicularum	5001310149																
Scoletoma hebes	5001310140																2
Scoletoma tenuis	50013101TENU						3				2			2	2	1	
Scoloplos (Leodamus) rubra	5001400307														1		
Seila adamsi	5103460401																
Solemya velum	5504010101																
Sphaerodoropsis minuta	5001260201													3			
Sphaerosyllis longicauda	5001230817								1		2	1					
Sphaerosyllis taylori	5001230811					1			2	2			1	1			
Spio setosa	5001430704																
Spiochaetopterus oculatus	5001490303								2								
Spionidae spp.	500143SPP																
Spiophanes bombyx	5001431001													1			
Sthenelais boa	5001060302						1										
Streblospio benedicti	5001431801																
Streptosyllis ? varians	5001231602																
Syllidae spp.	500123SPP																
Syllides cf. verrilli	5001231508CF					1								1			
Tectonatica pusilla	5103760601	1				2											
Tellina agilis	5515310205	4	1		9	1	2	2	10				16		2	2	1
Tellinidae spp.	551531SPP		5					2	1								2
Terebellidae spp.	500168SPP								1								
Thalassinidea spp.	6178SPP																
Tharyx acutus	5001500305	1	2				63		1		83		2	17	138	1	1
Thyasira gouldii	5515020301							1	3								
Turbellaria spp.	3901SPP									1		1					
Turbonilla aequalis	5108010224																
Turbonilla areolata	5108010209AR										5						
Turbonilla elegantula	5108010275				1	6	4					2	3				
Turbonilla interrupta	5108010209							1	5		2						2

New Bedford Harbor - 1999	Barcode	5067015	5067017	5068015	5068017	5071015	5071017	5072015	5072017	5073015	5073017	5074015	5074017	5075015	5075017	5076015	5076017
Area 3 - All Taxa	Station	324	324	325	325	331	331	332	332	333	333	334	334	335	335	338	338
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	1	3
Taxon	NODC Code																
Turbonilla spp.	51080102SPP	5												1			
Turbonilla sumneri	5108011102		12		3	3	48		30				8			7	
Turritellopsis acicula	5103330201										1						
Typosyllis alternata	5001230501					1											
Typosyllis regulata	5001230513												1				
Unciola dissimilis	6169150706																
Unciola irrorata	6169150703													1			
Unciola spp.	61691507SPP																
Xanthidae spp.	618902SPP										5				1		
Yoldia limatula	5502040511		5		1								1				
Yoldia sapotilla	5502040513																
Yoldia spp.	55020405SPP								4								
Zaops ostreum	6189060202		2			2			1		1	1	1				
Grand Total		858	1241	500	816	1185	1325	133	983	204	727	207	933	563	477	1179	319

New Bedford Harbor - 1999	Barcode	5077015	5077017	5078015	5078017	5079015	5079017	5081015	5081017	5082015	5082017	5083015	5083017	5085015	5085017	
Area 3 - All Taxa	Station	339	339	340	340	341	341	345	345	346	346	349	349	352	352	
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code															Total
Acteocina canaliculata	5110040103	20	3	27	27	30	19	13	11			21	6			661
Actiniaria spp.	3758SPP		1													3
Actinothoe sp. 1	37600502SP01															1
Ameroculodes sp. 1	61693708SP01															2
Ampelisca abdita	6169020108		1	1	2	3	1	2	2	1					1	35
Ampelisca macrocephala	6169020101											3				4
Ampelisca spp.	61690201SPP															3
Ampelisca vadorum	6169020109					3						1		7	2	21
Ampelisca verrilli	6169020110					1				1	47	3	2			92
Ampharete finmarchica	5001670214										1			2	1	5
Ampharetidae spp.	500167SPP															1
Amphipoda spp.	6168SPP															2
Amphiporus angulatus	4306050101	1			5			2					1	1		58
Amphiporus bioculatus	4306050110												2			2
Amphiporus cruentatus	4306050115															3
Amphiporus groenlandicus	4306050124		3			1										5
Ampithoe spp.	61690311SPP															1
Ampithoe valida	6169040116															2
Anachis lafresnayi	5105030306										2					12
Anadara transversa	5506010201						1						4		1	24
Ancistrosyllis hartmanae	5001220102													12	1	14
Anomia simplex	5509090202														1	1
Aphelochaeta marioni	5001500307															2
Aphelochaeta nr. monilaris	5001500301					1										7
Apocorophium acutum	6169150213															4
Arabella iricolor	5001330201									2	6		1		4	15
Aricidea catherinae	5001410208	26	24	87	140	99	7	71	12	13	7	2	2	14	11	886
Aricidea spp.	50014102SPP				1			1								5
Astarte castanea	5515190110													4		5
Asychis elongata	5001630103		1		1			3					3			43
Axiognathus squamatus	8129030202													2		3
Balanus venustus	6134020121															21
Batea catherinensis	6169100101					2	7								1	13
Bittium alternatum	5103460105															205
Bivalvia spp.	55SPP															3
Boccardiella hamata	5001432801															7
Boonea seminuda	5108011403															32

New Bedford Harbor - 1999	Barcode	5077015	5077017	5078015	5078017	5079015	5079017	5081015	5081017	5082015	5082017	5083015	5083017	5085015	5085017	
Area 3 - All Taxa	Station	339	339	340	340	341	341	345	345	346	346	349	349	352	352	
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code															Total
Brania clavata	5001230902		1													5
Brania wellfleetensis	5001230903															143
Busycon carica	5105070101								1							1
Cabira incerta	5001220401													4	4	9
Callinectes sapidus	6189010301															2
Cancer irroratus	6188030108		2	2				1		2	2					41
Cancer spp.	61880301SPP			1						1						4
Capitella capitata complex	5001600101															6
Capitella jonesi	50016001JONE														1	15
Carazziella hobsonae	5001432706		2	5	40			1						7	1	61
Carinoma tremaphoros	4302020101													11		11
Carinomella lactea	4302010201	7		1		3		2				1	1	1		55
Caulleriella sp. A	50015002SP01													1		1
Caulleriella sp. B	50015002SP02															212
Cerastoderma pinnulatum	5515220601					1							1	2	1	6
Cerebratulus lacteus	4303020209															3
Cerebratulus spp.	43030202SPP	1												1		2
Ceriantheopsis americanus	3743010201		1													4
Chaetopleura apiculata	5303060103													1	1	4
Chaetozone spp.	50015004SPP															4
Cirratulidae spp.	500150SPP													2		52
Cirratulus sp. 1	50015001SP01															4
Cirriformia grandis	5001500104														3	3
Cirrophorus furcatus	5001410606	1	1	1	3	6	2			6	16					53
Clymenella torquata	5001630202															3
Corbula contracta	5517020201															2
Corophiidae spp.	616915SPP													1		3
Coryphella rufibranchialis	514104011001															1
Crangon septemspinosa	6179220103										1					3
Crangonyx pseudogracilis	6169570101															37
Crassinella lunulata	5515200102														8	18
Crassostrea virginica	5510020102															2
Crepidula fornicata	5103640204													4	2	441
Crepidula plana	5103640207														5	78
Crepidula spp.	51036402SPP															10
Cumingia tellinoides	5515350302															2
Cylichna oryza	5110040208	107	39	65	51	70	3	41	17	2	2	11	14			1309

New Bedford Harbor - 1999	Barcode	5077015	5077017	5078015	5078017	5079015	5079017	5081015	5081017	5082015	5082017	5083015	5083017	5085015	5085017	
Area 3 - All Taxa	Station	339	339	340	340	341	341	345	345	346	346	349	349	352	352	
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code															Total
Decapoda spp.	6175SPP					1										4
Diaphana minuta	5110090101															1
Diopatra cuprea	5001290201												2			9
Dipolydora commensalis	5001430410										1					1
Dipolydora concharum	5001430414															1
Dipolydora socialis	5001430402										1					13
Dorvillea (Schistomeringos) rudolphii	5001360504													2	4	13
Drilonereis longa	5001330103														1	3
Dyspanopeus sayi	6189020703						1						1	4	4	43
Edotia triloba	6162020703	1														3
Edwardsia elegans	3759010101	1	1		1	1		3			1			13	5	43
Elasmopus laevis	6169210301															5
Eobrolgus spinosus	6169421901													4	1	61
Epitomapta roseola	8178010206													2		3
Erichthonius brasiliensis	6169150302					1	3						1			22
Eteone heteropoda	5001130207															15
Eteone spp.	50011302SPP															1
Euclymene collaris	5001631102					1	1			3	1			2		30
Eumida sanguinea	5001131101													1	2	73
Eusyllis lamelligera	5001230606														2	2
Exogone dispar	5001230701					1				1	5			23	9	79
Exogone spp.	50012307SPP															2
Fargoa bartschi	5108011501	2														2
Gammarus mucronatus	6169210709					1										1
Gammarus oceanicus	6169210711															1
Gammarus spp.	61692107SPP															1
Gastropoda spp.	51SPP					2		1								12
Glycera americana	5001270104	1								1				3		51
Glycera sp. 1	50012701SP01									7	9	1		1		66
Glyceridae spp.	500127SPP															1
Glycinde solitaria	5001280104															96
Goniadidae spp.	500128SPP															1
Gyptis vittata	5001210103												1	1		16
Haminoea solitaria	5110120102												4			433
Harmothoe extenuata	5001020803													1		1
Harmothoe ? nodosa	5001020828														1	1
Heterocrypta granulata	6187020801													1		1

New Bedford Harbor - 1999	Barcode	5077015	5077017	5078015	5078017	5079015	5079017	5081015	5081017	5082015	5082017	5083015	5083017	5085015	5085017	
Area 3 - All Taxa	Station	339	339	340	340	341	341	345	345	346	346	349	349	352	352	
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code															Total
Heteromastus filiformis	5001600201													1		40
Heteromysis formosa	6153010802			1				1							1	3
Hexapanopeus angustifrons	6189020601															4
Hippolyte spp.	61791601SPP															1
Hippolytidae spp.	617916SPP															1
Hutchinsoniella macracantha	6102010101															1
Hyas araneus	6187010203															1
Hyas coarctatus	6187010202															1
Hydroides dianthus	5001730901															1
Ilyanassa trivittata	5105080202						1				1	1	1			19
Jassa marmorata	6169270303															1
Kurtziella cerina	5106021102															6
Lacuna vincta	5103090305															3
Laevicardium mortoni	5515220401															6
Leitoscoloplos acutus	5001400305															29
Leitoscoloplos robustus	5001400304															27
Leitoscoloplos spp.	50014003SPP															4
Lembos smithi	6169060303														1	106
Lepidonotus sublevis	5001021104														1	2
Leptochelia dubia	6157150202															3
Leucon americanus	6154040110															1
Levinsenia gracilis	5001410801	4	1	3	6	7	1	8		1	2					35
Libinia dubia	6187010901											1				1
Listriella barnardi	6169330301									1						5
Luconacia incerta	6171011101															2
Lumbrineridae spp.	500131SPP					7										8
Lyonsia hyalina	5520050206	2										2	1	1		7
Lysianopsis alba	6169345304													1	10	52
Macoma tenta	5515310120	22	14		2	8	12	14	14			18				641
Macrochaeta sp. 1	50015102SP01													1		1
Maldanidae spp.	500163SPP												2			20
Mediomastus ambiseta	5001600401	968	559	463	452	420	9	751	41	74	54	51	14	21	19	11625
Melanella conoidea	5103530107												1			1
Melinna cristata	5001670501	2	5	1	1	1		4		1	1	1	1		1	55
Mercenaria mercenaria	5515471101															16
Microdeutopus anomalus	6169060402															2
Microphthalmus sczelkowii	5001210201															1

New Bedford Harbor - 1999	Barcode	5077015	5077017	5078015	5078017	5079015	5079017	5081015	5081017	5082015	5082017	5083015	5083017	5085015	5085017	
Area 3 - All Taxa	Station	339	339	340	340	341	341	345	345	346	346	349	349	352	352	
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code															Total
Microprotopus raneyi	6169260901															7
Micrura spp.	43030205SPP		1			1									7	9
Mitrella lunata	5105030207					8	13				2	1	8	1	13	149
Montacuta percompressa	5515100407															1
Monticellina baptisteae	50015003BAPT				5	14		4		1	1					33
Monticellina dorsobranchialis	5001500310	2		1	1	2								4		55
Mulinia lateralis	5515250301	6	4		2	1	1	7	1			1	2			719
Mysella planulata	5515100110														1	1
Mytilidae spp.	550701SPP															4
Mytilus edulis	5507010101										2					33
Neanthes succinea	5001240309															53
Nemertea spp.	43SPP													2		19
Nephtys cornuta	5001250104															6
Nephtys incisa	5001250115	12	10	9	3	7	4	14	13			3	3			150
Nephtys picta	5001250117															11
Nereis arenaceodonta	5001240408															2
Nereis grayi	5001240409					1	1									6
Nereis spp.	50012404SPP															1
Neverita duplicata	5103760407		1						1							6
Ninoe nigripes	5001310204	22	21	32	37	80	14	32	15	6	4	10	5		6	406
Notocirrus spiniferus	5001330301											1				1
Notomastus latericeus	5001600306					1										7
Nucula annulata	5502020205	25	65	11	14			77	105			1		1		858
Nucula delphinodonta	5502020206					2										2
Nucula proxima	5502020204					4					2		3		4	82
Nudibranchia spp.	5127SPP															1
Odontosyllis fulgurans	5001231304														1	5
Oligochaeta spp.	5003SPP	15	13	3	3	15		4		53	26	2		63	104	1225
Onuphidae spp.	500129SPP															4
Ophiura spp.	81270106SPP															2
Ophiuroidea spp.	8120SPP													1	1	2
Owenia fusiformis	5001640102															1
Oxyurostylis smithi	6154050801					1										14
Pagurus annulipes	6183060227					1					16				7	65
Pagurus spp.	61830602SPP						1			1				4		12
Panopeus herbstii	6189020801														2	3
Paracaprella tenuis	6171010901															6

New Bedford Harbor - 1999	Barcode	5077015	5077017	5078015	5078017	5079015	5079017	5081015	5081017	5082015	5082017	5083015	5083017	5085015	5085017	
Area 3 - All Taxa	Station	339	339	340	340	341	341	345	345	346	346	349	349	352	352	
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code															Total
Paradoneis lyra	5001411201														1	1
Paraninoe brevipes	5001310203															1
Paraonis fulgens	5001410302														1	1
Parapionosyllis longicirrata	5001231701										1			9	9	66
Parougia caeca	5001360505															8
Pectinaria gouldii	5001660302			1		5	1				1	2				139
Petricola pholadiformis	5515480102													1		1
Phascolion strombi	7200020401											2				4
Phascolopsis gouldii	7200010501															1
Pherusa affinis	5001540304										1					1
Phoxocephalus holbolli	6169420702														1	1
Phyllodoce arenae	5001131410	2			2	1	1			1	1		2			19
Pinnixa chaetopterana	6189060405															1
Pinnixa sayana	6189060409	1		3		2					2		1	1	1	34
Pinnixa spp.	61890604SPP													4		8
Pinnotheridae spp.	618906SPP															1
Pisione remota	5001070101														4	4
Pista cristata	5001680701													2	12	16
Pista maculata	5001680705													1		2
Pista palmata	5001680707															1
Pista spp.	50016807SPP															1
Pitar morrhuana	5515471201		2		1	2	1	4		1	2	4	1			64
Platynereis dumerilii	5001240503															22
Podarke obscura	5001211502					1								8	11	130
Polycirrus eximius	5001680804				3							1		25	162	443
Polycirrus spp.	50016808SPP										4					56
Polydora cornuta	5001430448															31
Polydora websteri	5001430412															3
Polygordius sp. A	50020501SP01	38								1				7		673
Polyonyx gibbesi	6183120401													1	4	7
Priapulus caudatus	7400010101														1	1
Prionospio (Minuspio) perkinsi	5001430517	22	89	112	43	15	2	43	4	2	1	17	9	5	1	767
Prionospio heterobranchia	5001430503				1	1								10	3	379
Propebela turricula	5106020601											1				1
Protodorvillea gaspeensis	5001360202									1	1			13	5	115
Ptilanthura tenuis	6160010301										2					2
Pythinella cuneata	5515090301															3

New Bedford Harbor - 1999	Barcode	5077015	5077017	5078015	5078017	5079015	5079017	5081015	5081017	5082015	5082017	5083015	5083017	5085015	5085017	
Area 3 - All Taxa	Station	339	339	340	340	341	341	345	345	346	346	349	349	352	352	
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code															Total
Rhepoxynius hudsoni	6169421502															4
Rictaxis punctostriatus	5110010403	1	2	4	4	5		1				2	1			188
Rudilemboides naglei	6169061201													6	2	53
Saccoglossus kowalevskii	8201010302	23	21			6		19	4			1		2		114
Scolelepis bousfieldi	5001432002	70	46	5	12	46	5	23	40			11	2			482
Scolelepis spp.	50014320SPP							7								7
Scolelepis texana	5001432006															52
Scoletoma acicularum	5001310149													1		1
Scoletoma hebes	5001310140							1								3
Scoletoma tenuis	50013101TENU					1								67	5	92
Scoloplos (Leodamus) rubra	5001400307													1		2
Seila adamsi	5103460401															4
Solemya velum	5504010101															2
Sphaerodoropsis minuta	5001260201															3
Sphaerosyllis longicauda	5001230817													1		6
Sphaerosyllis taylori	5001230811								1	1			1			17
Spio setosa	5001430704														1	1
Spiochaetopterus oculatus	5001490303	2	1		1								1			12
Spionidae spp.	500143SPP													1		1
Spiophanes bombyx	5001431001										2					11
Sthenelais boa	5001060302													1	2	9
Streblospio benedicti	5001431801															28
Streptosyllis ? varians	5001231602															5
Syllidae spp.	500123SPP															7
Syllides cf. verrilli	5001231508CF													1		13
Tectonatica pusilla	5103760601									1	1			1		18
Tellina agilis	5515310205		1	2			6		2	2	2	1	1			167
Tellinidae spp.	551531SPP				1			10					8			30
Terebellidae spp.	500168SPP															1
Thalassinidea spp.	6178SPP													1		1
Tharyx acutus	5001500305		1		4	2	2	2		2	4			8	3	358
Thyasira gouldii	5515020301										6		1	4		15
Turbellaria spp.	3901SPP															2
Turbonilla aequalis	5108010224														1	1
Turbonilla areolata	5108010209AR									1				1	5	12
Turbonilla elegantula	5108010275		3		14	21						1	1			56
Turbonilla interrupta	5108010209	1					2					1	3		1	28

New Bedford Harbor - 1999	Barcode	5077015	5077017	5078015	5078017	5079015	5079017	5081015	5081017	5082015	5082017	5083015	5083017	5085015	5085017	
Area 3 - All Taxa	Station	339	339	340	340	341	341	345	345	346	346	349	349	352	352	
	Replicate	1	3	1	3	1	3	1	3	1	3	1	3	1	3	
Taxon	NODC Code															Total
Turbonilla spp.	51080102SPP	4					2	5								39
Turbonilla sumneri	5108011102		4			13				2		3	10			143
Turritellopsis acicula	5103330201															8
Typosyllis alternata	5001230501				1						1					3
Typosyllis regulata	5001230513															1
Unciola dissimilis	6169150706											3				3
Unciola irrorata	6169150703									3	1	1				6
Unciola spp.	61691507SPP											14				14
Xanthidae spp.	618902SPP															12
Yoldia limatula	5502040511	1										5	2			16
Yoldia sapotilla	5502040513					2										2
Yoldia spp.	55020405SPP	1														6
Zaops ostreum	6189060202	3		1	1	1				1	1					17
Grand Total		1417	944	842	885	933	124	1172	284	197	247	206	131	419	493	27701