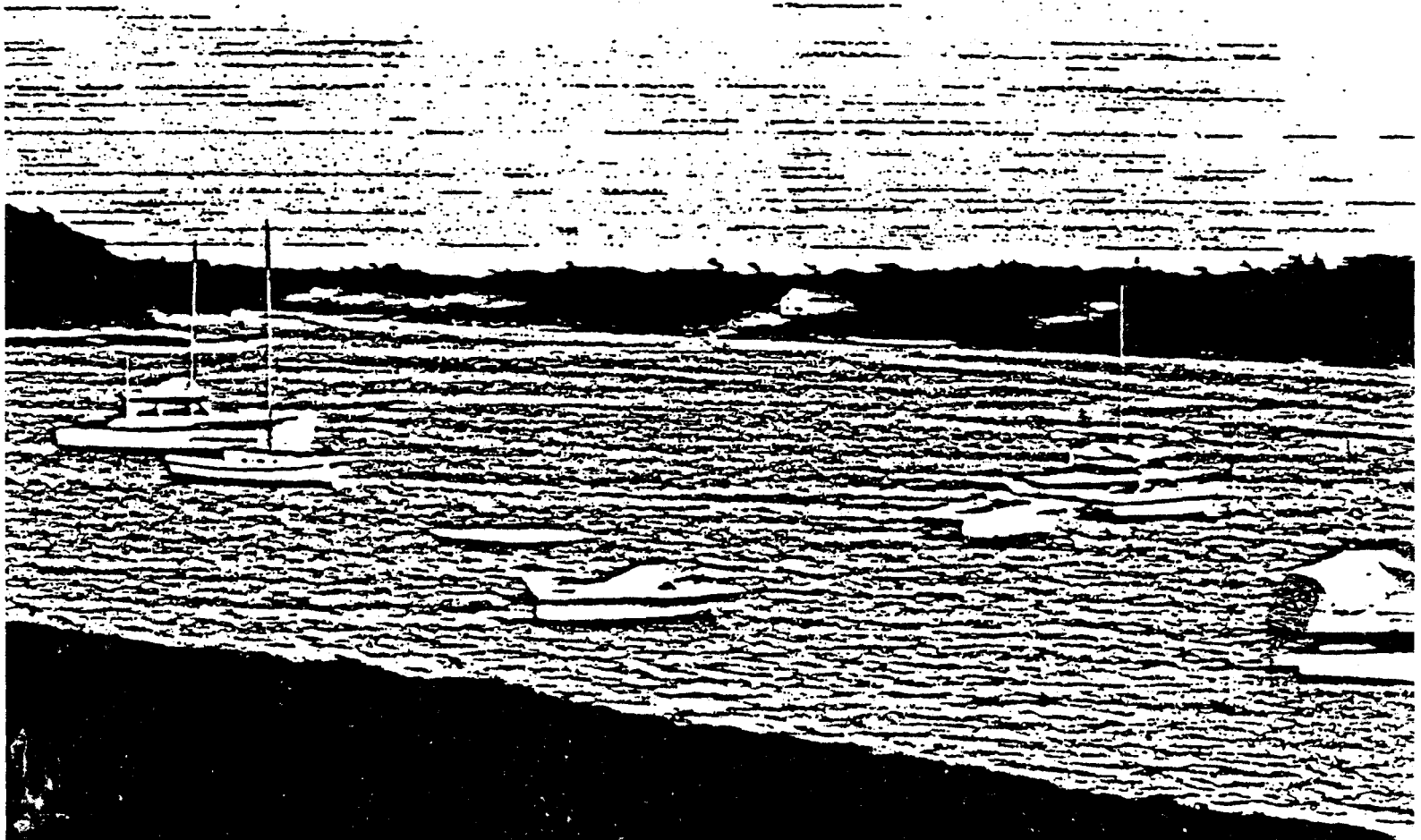


BUZZARDS BAY 1985

WATER QUALITY SURVEY DATA

PART A



Massachusetts Department of Environmental Quality Engineering

DIVISION of WATER POLLUTION CONTROL

Thomas C. McMahon, Director

BUZZARDS BAY

1986

WATER QUALITY SURVEY DATA

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MASSACHUSETTS DIVISION OF WATER POLLUTION CONTROL

DEPARTMENT OF ENVIRONMENTAL QUALITY ENGINEERING

WESTBOROUGH, MASSACHUSETTS

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FOREWORD

The Massachusetts Division of Water Pollution Control was established by the Massachusetts Clean Water Act, Chapter 21 of the General Laws as amended by Chapter 685 of the Acts of 1966. Included in the duties and responsibilities of the Division is the periodic examination of the water quality of various coastal waters, rivers, streams and ponds of the Commonwealth, as stated in section 27, paragraph 5 of the Acts. This section further directs the Division to publish the results of such examination together with the standards of water quality established for the various waters. The Technical Services Branch of the Division of Water Pollution Control has, among its responsibilities, the execution of this directive. This report is published under the Authority of the Acts and is among a continuing series of reports issued by the Division presenting water quality data and analyses, water quality management plans, baseline and intensive limnological studies and various special studies.

ACKNOWLEDGMENTS

The successful completion of an undertaking such as this one requires the coordinated efforts of a great many talented professionals. The Division of Water Pollution Control would like to extend its appreciation to:

The staff of the Technical Services Branch (TSB) at Westborough for their assistance in sample collection;

Donald Grant of the Environmental Protection Agency's Region I office who captained one of the survey boats;

Leigh Bridges and Captain Shirley Mitchell of the Massachusetts Division of Marine Fisheries who provided and captained the research vessel "F.W. Wilbour" used in collecting the outer bay samples;

James Shaw, Wareham Sewage Treatment plant operator, and Dr. David Kan of the Massachusetts Maritime Academy who kindly provided laboratory space during the surveys;

Burt Limeburner, George Souza and Bob Sheehy, Shellfish Officers for the respective towns of Bourne, Falmouth, and Wareham, for their input and advice concerning station locations;

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The laboratory staff at the Lawrence Experiment Station for their analytical skills;

Ken Dominick, Senior Civil Engineering Draftman who prepared the graphics contained in this report; and last but not least to the secretarial staff at TSB, notably Aline L. Charest for her typing skills and patience in preparing this report.

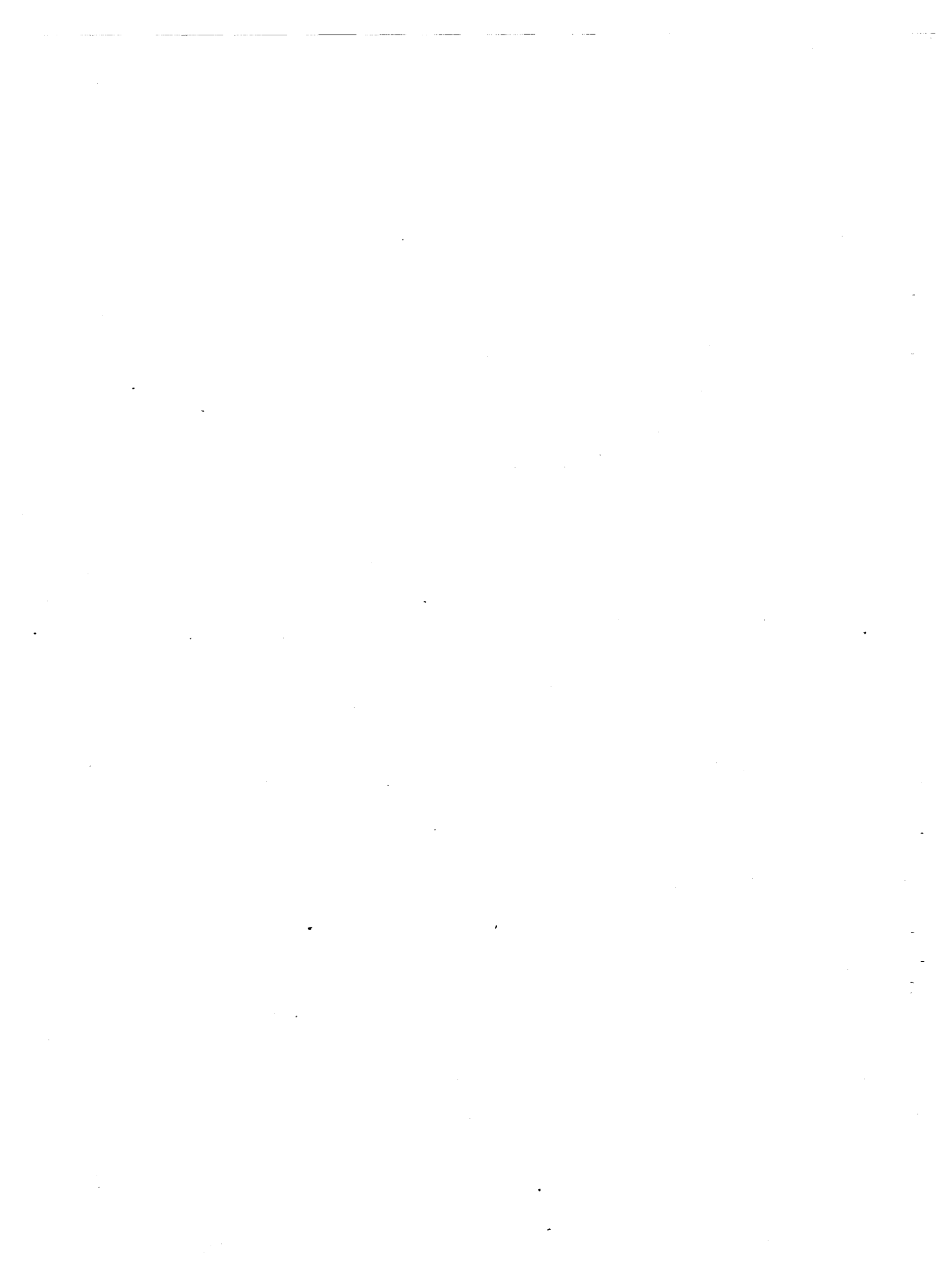


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ABSTRACT

Massachusetts Division of Water Pollution Control

1985 Buzzards Bay Water Quality Survey Data

148 pages, 66 tables, 15 figures

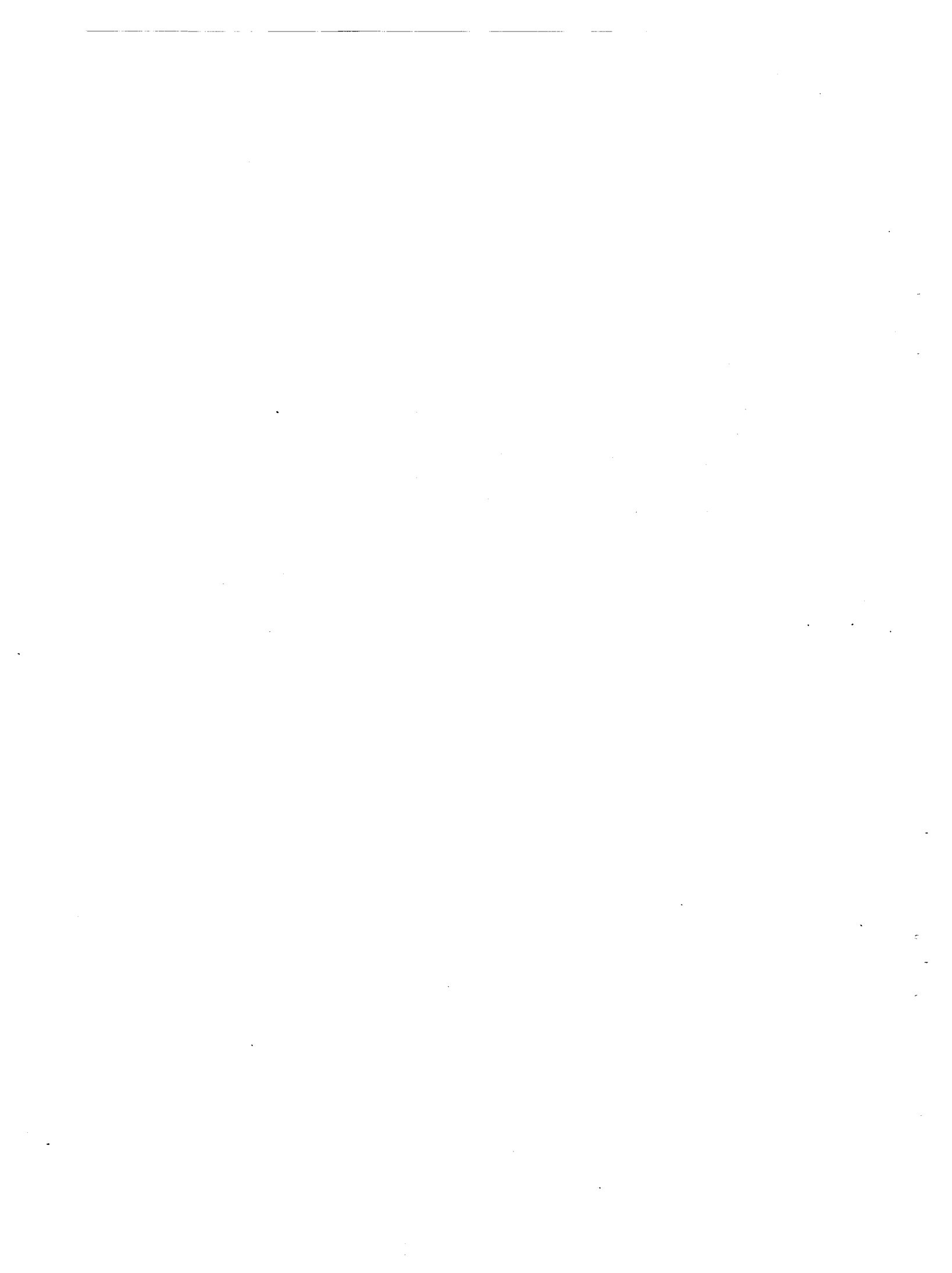
Water quality data is reported from 85 stations located within the principal rivers, estuaries, inner embayments and outer bay. Stations located along the western side of the Bay were sampled on May 22, 1985 and during the period of August 13-14, 1985. Stations along the eastern side of the Bay were sampled during the period August 27-28, 1985.

Sample parameters included temperature, dissolved oxygen, pH, BOD₅, total Kjeldahl-nitrogen, ammonia-nitrogen, nitrate-nitrogen, total phosphorus, orthophosphate, total alkalinity, total solids, suspended solids, dissolved solids, turbidity, chlorides, salinity, specific conductance, total and fecal coliform bacteria and chlorophyll. Water samples at selected stations were also analyzed for total metals (cadmium, chromium, copper, lead, mercury and nickel). Flow data for the major freshwater sources is reported. Meteorological conditions and the time of high and low tides during the sampling period is also reported.



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INTRODUCTION

The Buzzards Bay 1985 surveys represent the Division of Water Pollution Control's (DWPC) first extensive water quality surveys into this basin since the mid-70's. Previous efforts included 1971 surveys of water quality conditions within the Acushnet River and New Bedford Harbor complex; a 1975 water quality survey of the western shore of Buzzards Bay from the Rhode Island/ Massachusetts state line to Buttermilk Bay; and a 1976 water quality survey of Cape Cod which included stations on the eastern shore of the Bay in the towns of Bourne and Falmouth.

Due to the size of the Basin and limitations in equipment and personnel a decision was made to survey the Basin in more manageable units (Figure 1). They are as follows:

- Area I - The subdrainage basins and inner embayments of the western shore from the Rhode Island/Massachusetts state line to the Fairhaven/Mattapoisett town line.
- Area II - The subdrainage basins and inner embayments from the Fairhaven/Mattapoisett town line to Buttermilk Bay.
- Area III - The subdrainage basins and inner embayments of the eastern shore from the Cape Cod Canal to Woods Hole, Falmouth.
- Area IV - The Elizabeth Islands.
- Area V - The Outer Bay, the waters seaward of the headlands out to the mouth of the Bay.

The segments surveyed in 1985 included Area II and Area III with selected stations in the Outer Bay (Area V) north of an imaginary line drawn between the towns of Mattapoisett and Woods Hole, Falmouth. The station locations are shown in their respective subdrainage basins in Figures 5, 6, 7, 8, 10, 11, and 12.

Sample station locations were selected on the basis of the following criteria:

- a) Historical data, i.e., stations sampled during previous DWPC surveys or by the United States Geological Survey.
- b) Stations are upstream or downstream of a known pollution source.
- c) At the confluence of a major tributary or within the main channel.
- d) Within the transitional zone between fresh and saline waters when salinity measurements range between 0 ‰ and 15 ‰. These stations were most easily accessed from the land and were included under the generic term of intertidal stations.

The sampling techniques varied with the date of sampling and the location of the station. On May 22, 1985 the Division collected individual grab samples from 22 stations within Area II. Samples from the respective intertidal and inner embayment stations were collected on the outgoing tide.

During the time periods of August 13-14 and August 27-28, the Division collected samples from different locations within Areas II, III and V. All freshwater stations (22) were sampled four times over two-day periods, twice during early morning hours and twice under late afternoon conditions. Composite samples of each days' water chemistry, nutrients and heavy metals were obtained by combining equal volumes of sample from the morning and afternoon runs. All intertidal stations (26) were sampled four times over a two-day period, twice on the outgoing morning tides and twice on the incoming afternoon tides. All inner embayment stations (29) were sampled once on the outgoing tides one meter below the surface, using a 2.2 liter alpha style Van Dorn sampler manufactured by the Wildlife Supply Company, Saginaw, Michigan. Samples for dissolved oxygen content and total and fecal coliform were collected at each station during each sampling run. Temperature measurements were made "in situ" at each station during each run. pH measurements were made "in situ" at each station during each run with an Orion Model 211 field pH meter, manufactured by Orion Research Incorporated, Cambridge, MA. pH measurements were also made on the composite samples at the laboratory and are reported as such. Grab samples for chlorophyll levels were made at selected stations within the freshwater and intertidal zones. Selected stations within the freshwater zone were monitored for flow using the wading rod method. All outer bay stations (6) were sampled once with grab samples for water chemistry being obtained from one meter below the surface and one meter above the bottom, using a 2.2 liter, Beta style Van Dorn sampler manufactured by the Wildlife Supply Company, Saginaw, Michigan. The Division also obtained dissolved oxygen, salinity, temperature and specific conductivity profiles at these outer bay stations using a Hydrolab Surveyor II model SVR2 manufactured by the Hydrolab Corporation of Austin, Texas.

The dissolved oxygen content was measured by the modified Winkler method. Saturation values for dissolved oxygen were calculated from Table A-6 found in Elements of Wastewater Supply and Wastewater Disposal by Fair, Geyer 1965 fifth edition. John Wiley & Sons, Inc. 615 p.

The times for the tides referenced in the subsequent data tables are those reported for Wings Neck which is located along the eastern side of the Bay in the town of Bourne. These reported times were obtained from monthly tide tables, prepared by the U.S. Army Corps of Engineers.

Field sampling was conducted according to the Division's Standard Operating Procedures (SOP) document which was developed from standardized and approved sampling methodologies. Copies of this document are on file at the Technical Services Branch office in Westborough, MA. Sampling schedules, parameters, collection methods, and analytical procedures used in the Buzzards Bay surveys are included in Tables 62-66.

DESCRIPTION OF BASIN

Buzzards Bay Drainage Basin (95)

Buzzards Bay is a prominent coastal embayment on the New England coast nestled between Cape Cod and southern Massachusetts. The mouth of the Bay opens south into Rhode Island Sound. Along its western shore the drainage basin is formed by seven coastal river basins, with a total drainage area of approximately 350 square miles. From east to west the major river basins are: Agawam, Wankinco, Weweantic, Mattapoisett, Acushnet, Paskamanset/Slocums, and Westport.

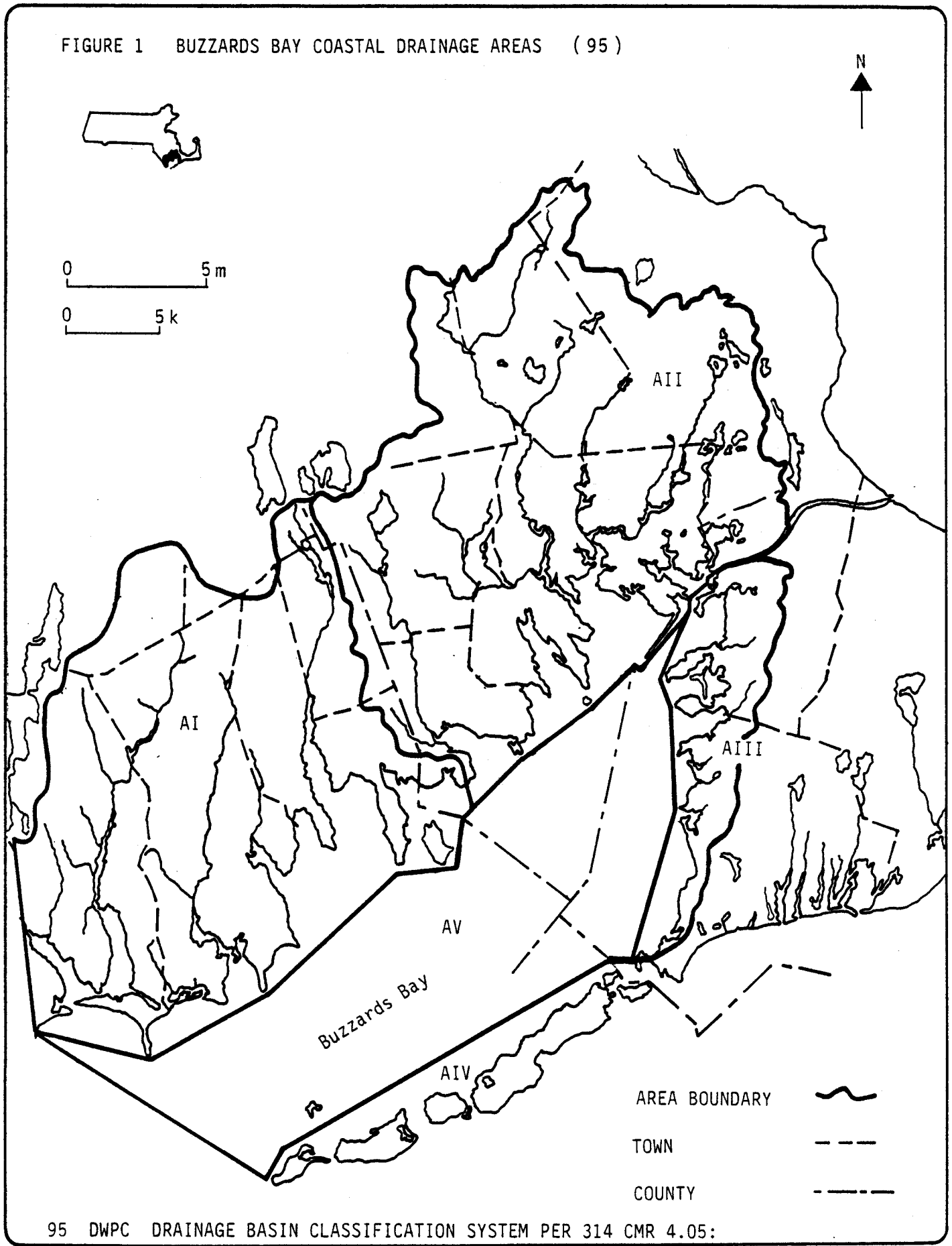
Along the easterly shore from the Cape Cod Canal to Woods Hole, Falmouth, small river basins provide an additional 35 square miles of drainage area. The prominent freshwater streams along the eastern shore from north to south are: the Back River, Pocasset River, Wild Harbor River, and Herring Brook. A chain of islands (the Elizabeth Islands), separated by tidal channels (holes), forms the southeastern side of the Bay.

Geologically, the Buzzards Bay Basin is characterized as a low granitic upland with glacial till and outwash deposits forming the soils. The terrain can be described as low and gently rolling with numerous lakes and marshes. Maximum elevations range between 200 to 300 feet in the northernmost reaches of the basin.

The Bay itself is 28 miles long, averages eight miles in width and has an average depth of 50 feet in the central basin. The surface area of the Bay is estimated to be 235 square miles.

The numerous harbors and coves located along its jagged coastline are used extensively for recreational and commercial purposes, with over 4,300 slips and moorings along the Bay. Over 20,000 vessels pass through the Cape Cod Canal and Buzzards Bay annually, transporting over 19 million tons of commercial cargo including most of the number 2 fuel used in New England. New Bedford Harbor is the industrial and commercial center of the basin, carrying over from its earlier days as a principal whaling port. It is now one of the most important fishing ports in the United States. This harbor also suffers the most severe water quality problems - these problems can be attributed to combined sewer overflows, industrial discharges, municipal sewage treatment plant discharges and poor water circulation within the Inner Harbor. The problems attributed to other harbors within the basin include street runoff from urban development, discharges from failing septic systems and water craft, leachate from landfills and agricultural runoff. This last source includes potential impacts from widespread use of fertilizers, pesticides and herbicides within the extensive cranberry growing areas.

FIGURE 1 BUZZARDS BAY COASTAL DRAINAGE AREAS (95)



95 DWPC DRAINAGE BASIN CLASSIFICATION SYSTEM PER 314 CMR 4.05:

TABLE I

BUZZARDS BAY BASIN AREA II - CLASSIFICATION

BOUNDARY	PRESENT USE	ANTICIPATED FUTURE USE	PRESENT CONDITION*	CLASSIFICATION
Little Buttermilk Bay, Buttermilk Bay, Wareham, Bourne	Bathing, recreational boating, fish & wild- life propagation, fishing, shellfishing	Same	SB ¹ /SA	SA
Onset Bay, Wareham	Bathing, recreational boating, fish & wild- life propagation, fishing, shellfishing	Same	SA	SA
Agawam River, Plymouth, Wareham	Bathing, recreational boating, fish & wild- life propagation, fishing, irrigation, waste assimilation	Same	B/SB ²	B/SA
Wankinco River, Carver, Plymouth, Wareham	Bathing, recreational boating, fish & wild- life propagation, fishing, irrigation	Same	B/SB ²	B/SA
Sippican River from the headwaters, Rochester, Wareham, to County Road, Marion, Wareham	Bathing, recreational boating, fish & wild- life propagation, fishing, irrigation	Same	B	B
Sippican River from County Road, Marion, Wareham, to the mouth, Marion, Wareham	Bathing, recreational boating, fish & wild- life propagation, fishing, shellfishing	Same	B/SB	B/SA

TABLE 1 (CONTINUED)

BOUNDARY	PRESENT USE	ANTICIPATED FUTURE USE	PRESENT CONDITION	CLASSIFICATION
Weweantic River from the headwaters, Carver, to the outlet of Horseshoe Pond, Wareham	Bathing, recreational boating, fish & wild-life propagation, fishing	Same	B	B
Weweantic River from the outlet of Horseshoe Pond Wareham, to the mouth, Wareham, Marion	Bathing, recreational boating, fish & wild-life propagation, fishing, shellfishing	Same	SA	SA
Wareham River, Wareham	Bathing, recreational boating, fish & wild-life propagation, fishing, shellfishing, assimilation	Same	SB ³ /SA	SB
Sippican Harbor, Marion	Bathing, recreational boating, fish & wild-life propagation, fishing	Bathing, recreational boating, fish & wild-life propagation, fishing, shellfishing	SB ⁴	SA
Mattapoissett River, Mattapoissett, Rochester	Bathing, recreational boating, fish & wild-life propagation, fishing, irrigation	Same	B/SB ⁵	B
Mattapoissett Harbor, Mattapoissett	Bathing, recreational boating, fish & wild-life propagation, fishing, shellfishing	Bathing, recreational boating, fish & wild-life propagation, fishing, shellfishing	SA ⁶	SA

TABLE 1 (CONTINUED)

BOUNDARY	PRESENT USE	ANTICIPATED FUTURE USE	PRESENT CONDITION	CLASSIFICATION
Hiller Cove, Mattapoisett, Marion	Bathing, recreational boating, fish & wild- life propagation, fishing	Bathing, recreational boating, fish & wild- life propagation, fishing, shellfishing	SB	SA
All other freshwater streams within Buzzards Bay Basin Area II	---	---	---	B
All other coastal waters within Buzzards Bay Basin Area II and V	---	---	---	SA

* SOURCE: Massachusetts Department of Environmental Quality Engineering, Southeast Regional Office, shellfish sanitation records.

Massachusetts Department of Fisheries, Wildlife & Environmental Law Enforcement, Division of Marine Fisheries Report, entitled, "Massachusetts Marine Fisheries Assessment at Mid-Decade," 1985.

- 1 Portions of Buttermilk Bay in Wareham, Little Buttermilk Bay in Bourne are closed to shellfishing in accordance with provisions of Massachusetts General Laws, Chapter 130 Section 74A (MGL Ch. 130 S74A).
- 2 Tidal portions of Agawam and Wankinco rivers in Wareham are closed to shellfishing in accordance with provisions of MGL Ch. 130 S74A.
- 3 Portions of Wareham River, Wareham are closed to shellfishing in accordance with provisions of MGL Ch. 130 S74A.
- 4 Portions of Sippican Harbor including Briggs Cove, Marion are closed to shellfishing in accordance with provisions of MGL Ch. 130 S74 (seasonal closure), Ch. 130 S74A.
- 5 Tidal portions of Mattapoisett River are closed to shellfishing in accordance with provisions of MGL Ch. 130 S74A.
- 6 Portions of Mattapoisett Harbor including all of Eel Pond are closed to shellfishing in accordance with provisions of MGL Ch. 130 S74A.

TABLE 2

BUZZARDS BAY BASIN AREA III - CLASSIFICATION

BOUNDARY	PRESENT USE	ANTICIPATED FUTURE USE	PRESENT CONDITION*	CLASSIFICATION
Cape Cod Canal, Bourne and Sandwich	Recreational boating, fish & wildlife propagation, fishing, industrial processing & cooling, assimilation	Same	SB	SB
Phinneys Harbor, Bourne	Recreational boating, fish & wildlife propagation, fishing, bathing, restricted shellfishing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SB ¹ /SA	SA
Pocasset Harbor, Bourne	Recreational boating, fish & wildlife propagation, fishing, bathing, shellfishing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SA	SA
Red Brook Harbor, Bourne	Recreational boating, fish & wildlife propagation, fishing, bathing, restricted shellfishing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SB ² /SA	SA
Megansett Harbor, Bourne and Falmouth	Recreational boating, fish & wildlife propagation, fishing, bathing, shellfishing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SA	SA
Wild Harbor, Falmouth	Recreational boating, fish & wildlife propagation, fishing, bathing, restricted shellfishing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SA	SA
Herring Brook, Falmouth	Recreational boating, fish & wildlife propagation, fishing, bathing, restricted shellfishing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SA	SA

TABLE 2 (CONTINUED)

BOUNDARY	PRESENT USE	ANTICIPATED FUTURE USE	PRESENT CONDITION	CLASSIFICATION
West Falmouth Harbor, Falmouth	Recreational boating, fish & wildlife propaga- tion, fishing, bathing, shellfishing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SA	SA
Great Sippewissett Creek, Falmouth	Recreational boating, fish & wildlife propaga- tion, fishing, bathing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SA	SA
Little Sippewissett Creek, Falmouth	Recreational boating, fish & wildlife propaga- tion, fishing, bathing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SA	SA
6 Quissett Harbor, Falmouth	Shellfishing, recrea- tional boating, fish & wildlife propagation, fishing, bathing	Recreational boating, bathing, fish & wildlife propagation, fishing, shellfishing	SB ³ /SA	SA
All other freshwater streams within Buzzards Bay Basin Area III	---	---	---	B
All other coastal waters within Buzzards Bay Basin Area III	---	---	---	SA

* SOURCE: Massachusetts Department of Environmental Quality Engineering, Southeast Regional Office, shellfish sanitation records.

Massachusetts Department of Fisheries, Wildlife & Environmental Law Enforcement, Division of Marine Fisheries Report, entitled, "Massachusetts Marine Fisheries Assessment at Mid-Decade," 1985.



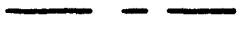
¹ Portions of Back River, Pocasset River and Eel Pond located within Phinneys Harbor, Bourne are closed to shellfishing in accordance with provisions of Massachusetts General Laws Chapter 130, Section 74A (MGL Ch. 130 S74A).

² Portions of Red Brook Harbor, Bourne are seasonally closed to shellfishing in accordance with provisions of MGL Ch. 130 S74

³ Portions of Quissett Harbor, Falmouth are closed to shellfishing in accordance with provisions of MGL Ch. 130 S74.

FIGURE 2 BUZZARDS BAY STUDY AREA II BASIN CLASSIFICATION MAP

WEWEANTIC R./SIPPICAN HARBOR DRAINAGE BASIN (FIGURE 5)

BASIN BOUNDARY 
 TOWN BOUNDARY 
 COUNTY BOUNDARY 

AGAWAM - WANKINCO - WAREHAM RIVER DRAINAGE BASIN (FIGURE 4)

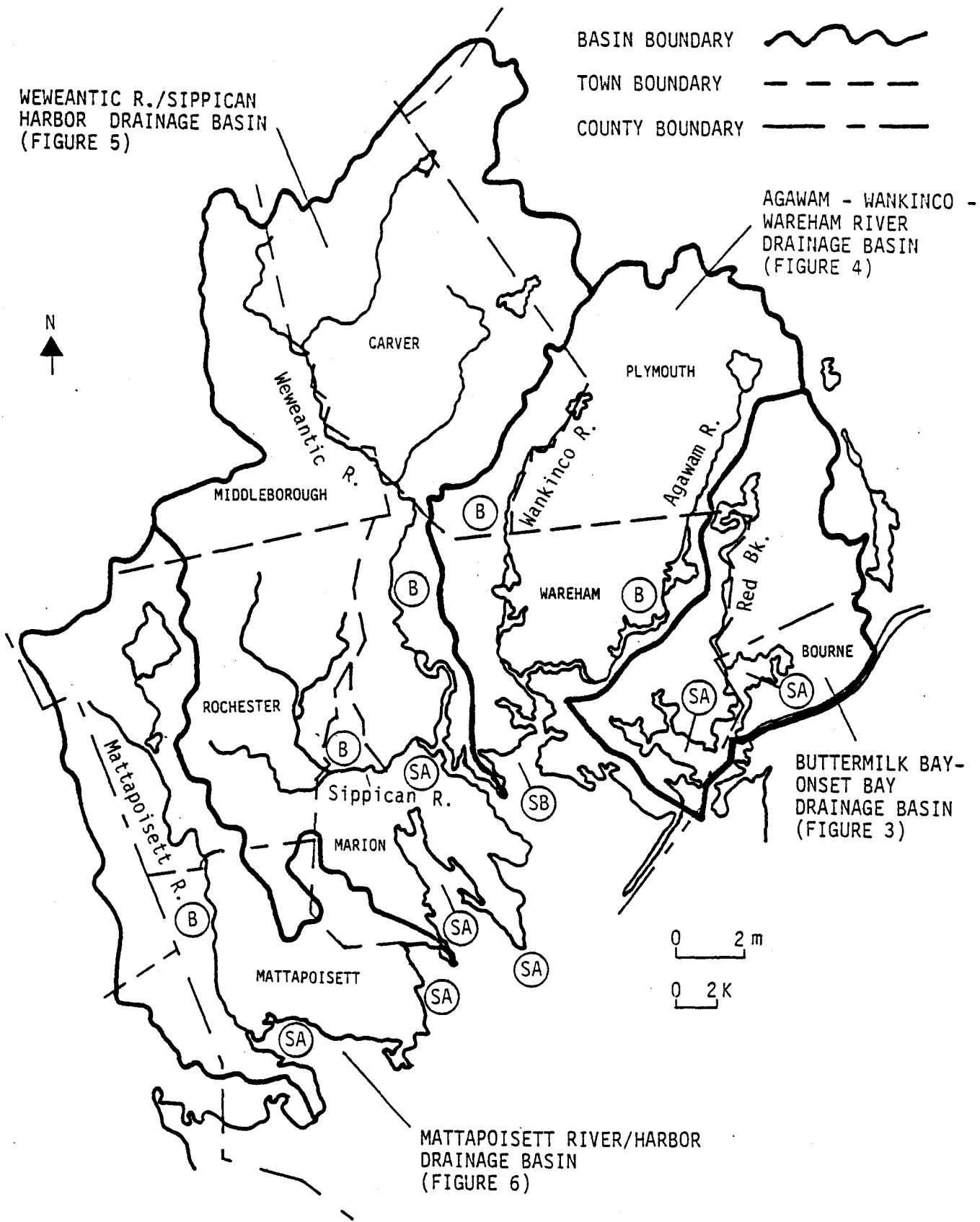


FIGURE 3 BUZZARDS BAY AREA III
BASIN CLASSIFICATION MAP

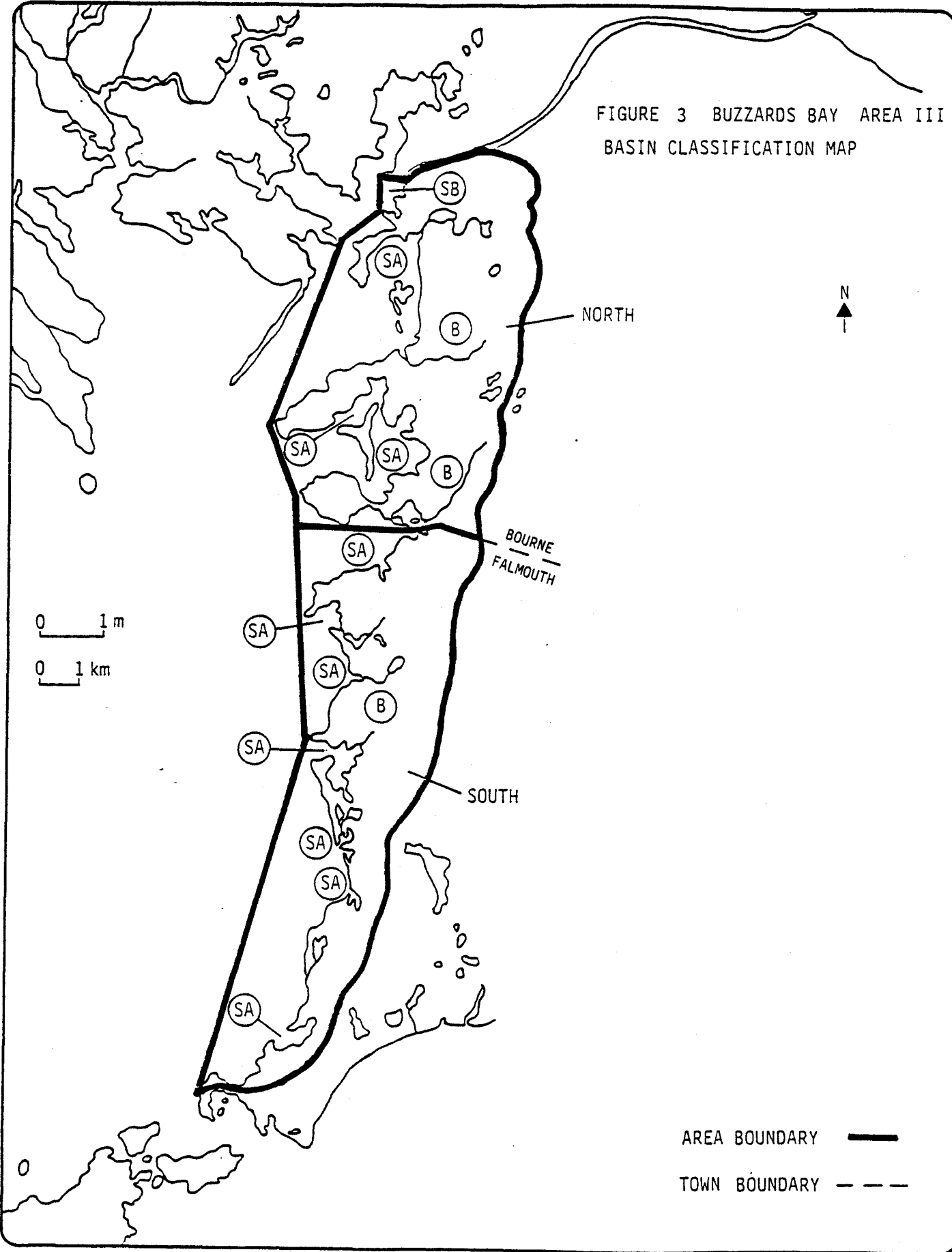


TABLE 3

1985 BUZZARDS BAY WATER QUALITY SURVEY

STATION LOCATIONS - AREA II

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>Buttermilk Bay Drainage Basin (11)</u>					
1RB010	Red Brook at culvert on Red Brook Road Bourne/Wareham to town line.	41°45'48"	70°37'59"	5/22/85 8/13-14/85	Intertidal
2BB020	Unnamed brook at culvert on Head of Bay Road, Bourne	41°44'55"	70°37'15"	5/22/85 8/13-14/85	Freshwater
BB030	Unnamed brook off Old Head of Bay Road, Bourne	41°45'59"	70°36'43"	5/22/85	Freshwater
3BB040	Little Buttermilk Bay at Gibbs Narrows, Bourne	41°45'47"	70°36'46"	5/22/85 8/13-14/85	Intertidal
4BB050	Cohasset Narrows at Route 6 bridge, Bourne/Wareham town line.	41°44'47"	70°37'18"	5/22/85 8/13-14/85	Intertidal
5BB060	Mouth of Buttermilk Bay at Channel marker #7, Bourne/Wareham town line.	41°44'19"	70°37'54"	5/22/85 8/14/85	Inner Embayment
<u>Onset Bay Drainage Basin (12)</u>					
6GB040	Gibbs Brook at Routes 6 & 28 culvert, Wareham	41°45'26"	70°39'15"	8/13-14/85	Freshwater
7UP010	Unnamed Brook outlet from Union Pond at Route 28, Wareham	41°45'39"	70°34'20"	8/13-14/85	Freshwater
8MC020	Muddy Cove at Whittemore Avenue bridge, Wareham	41°44'32"	70°39'14"	8/13-14/85	Intertidal

TABLE 3 (CONTINUED)

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>Onset Bay Drainage Basin (12) Continued</u>					
9ER030	East River at Onset Avenue bridge, Wareham	41°44'33"	70°39'15"	8/13-14/85	Intertidal
10OB0300	Onset Bay, main channel at Nun #16, Wareham	41°44'20'	70°39'26"	8/14/85	Inner Embayment
11OB0200	Basin between Wickets Island and Onset Island, Wareham	41°44'10"	70°38'55"	8/14/85	Inner Embayment
12OB0400	Mouth of Onset Bay at Nun #6, Wareham	41°43'46"	70°38'34"	8/14/85	Inner Embayment
<u>Agawam River Drainage Basin (10)</u>					
13AR070	Agawam River at Maple Park culvert off Glen Charlie Road, Wareham	41°46'57"	70°39'20"	5/22/85 8/13-14/85	Freshwater
14AR080	Agawam River outlet of Mill Pond at Route 28, Wareham	41°45'40"	70°40'30"	5/22/85 8/13-14/85	Freshwater
15AR090	Agawam River at Route 6 bridge, Wareham	41°45'48"	70°41'22"	5/22/85 8/13-14/85	Intertidal
<u>Wankinco River Basin (10)</u>					
16WR0060	Wankinco River upstream of the Regional Landfill, Carver	41°49'31"	70°42'30"	8/13-14/85	Freshwater
17WR0070	Wankinco River downstream of the Regional Landfill, Carver	41°48'30"	70°43'02"	8/13-14/85	Freshwater
18WR0100	Wankinco River below Parker Mills Pond and the Tremont Nail Co., Wareham	41°45'58"	70°43'20"	5/22/85 8/13-14/85	Intertidal

TABLE 3 (CONTINUED)

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>Sippican River Basin (10)</u>					
28SR0150	Sippican River at Bates Road, Rochester	41°44'49"	70°48'14"	8/13-14/85	Freshwater
29SR0160	Sippican River at bridge on County Road, Marion	41°44'05"	70°46'30"	5/22/85 8/13-14/85	Freshwater
<u>Weweantic River Basin (10)</u>					
19WE0110	Weweantic River at upstream side of Route 28, Wareham	41°47'54"	70°45'50"	5/22/85 8/13-14/85	Freshwater
20WE0120	Weweantic River at culvert on Fearing Hill Road, Wareham	41°46'13"	70°45'17"	5/22/85 8/13-14/85	Freshwater
21WE0130	Weweantic River at Route 6 bridge, Wareham	41°44'15"	70°44'52"	5/22/85 8/13-14/85	Intertidal
22WE0140	Weweantic River at mouth Nun #8, Wareham	41°43'10"	70°43'14"	5/22/85 8/14/85	Inner Embayment
<u>Wareham River Basin (10)</u>					
23WA0170	Wareham River at Route 6 bridge, Wareham	41°45'24"	70°42'48"	5/22/85 8/13-14/85	Intertidal
24WA0180	Wareham River at Crab Cove boat ramp, Wareham	41°44'59"	70°42'11"	5/22/85 8/14/85	Inner Embayment
25WA0190	Wareham River at confluence of Broad Marsh River and Wareham River at Can #23, Wareham	41°44'49"	70°42'27"	5/22/85 8/14/85	Inner Embayment

TABLE 3 (CONTINUED)

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>Wareham River Basin (10) Continued</u>					
26WA0200	Wareham River main channel off Swift Beach at Can #17, Wareham	41°44'09"	70°42'42"	5/22/85 8/14/85	Inner Embayment
27WA0210	Wareham River at mouth off Nobska Point Nun #14, Wareham	41°43'46"	70°43'10"	5/22/85 8/13/85	Inner Embayment
<u>Sippican Harbor Drainage Basin (9)</u>					
30SH0100	Sippican Harbor off Black Point, Marion	41°45'54"	70°42'42"	8/13/85	Inner Embayment
31SH0200	Sippican Harbor at mouth of Hammett Cove, Marion	41°45'26"	70°42'47"	8/13/85	Inner Embayment
32SH0300	Sippican Harbor at main channel north of Ram Island at Can #9, Marion	41°45'12"	70°41'52"	8/13/85	Inner Embayment
33SH0400	Sippican Harbor at mouth flashing red marker #3 (Fl R), Marion	41°40'39"	70°44'23"	8/13/85	Inner Embayment
<u>Mattapoissett River Basin (8)</u>					
34MR010	Mattapoissett River at Rounseville Road bridge, Rochester	41°44'10"	70°51'45"	8/13-14/85	Freshwater
35MR050	Mattapoissett River at Tinkham Lane bridge, Rochester	41°41'05"	70°50'20"	8/13-14/85	Freshwater
36MR080	Mattapoissett River at Route 6 bridge, Mattapoissett	41°39'45"	70°50'20"	8/13-14/85	Freshwater

TABLE 3 (CONTINUED)

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>Mattapoissett Harbor Drainage Basin (8)</u>					
37PI010	Unnamed brook discharging into Pine Island Pond at Agelica Avenue culvert, Massapoissett	41°38'56"	70°46'42"	8/13-14/85	Intertidal
38MH0300	Mattapoissett Harbor outlet of Eel Pond, Mattapoissett	41°39'24"	70°49'04"	8/13-14/85	Intertidal
39MH010	Unnamed Brook discharging into Mattapoissett Harbor, Mattapoissett	41°39'28"	70°47'05"	8/13-14/85	Freshwater
40MH0700	Head of Mattapoissett Harbor at Nun #8, Mattapoissett	41°39'28"	70°48'52"	8/13/85	Inner Embayment
41MH0800	Mouth of Mattapoissett Harbor at Nun #4, Mattapoissett	41°38'15"	70°47'25"	8/14/85	Inner Embayment

FIGURE 4 BUZZARDS BAY STUDY AREA II COASTAL DRAINAGE BASINS

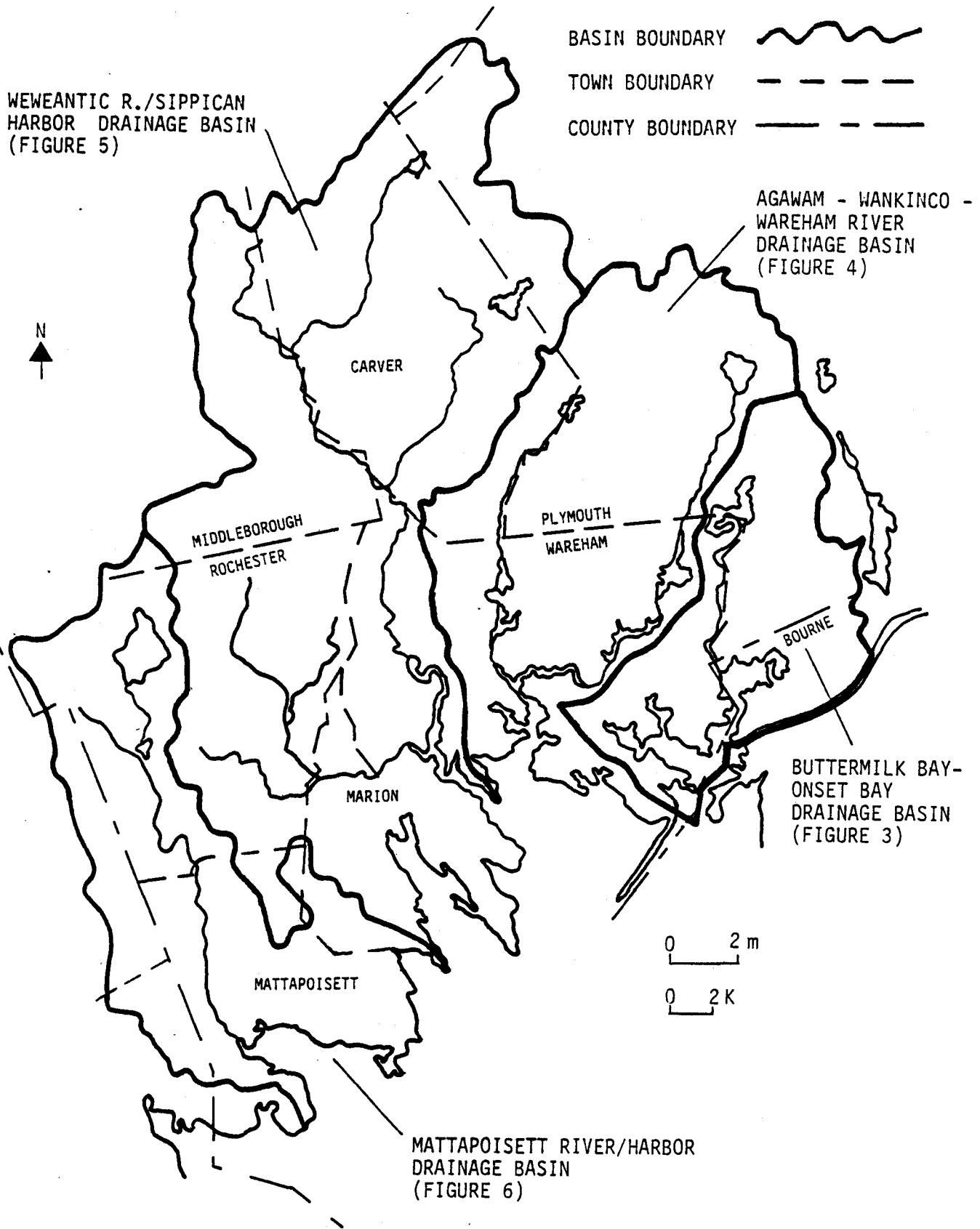


FIGURE 5

BUTTERMILK BAY - ONSET BAY
DRAINAGE BASIN

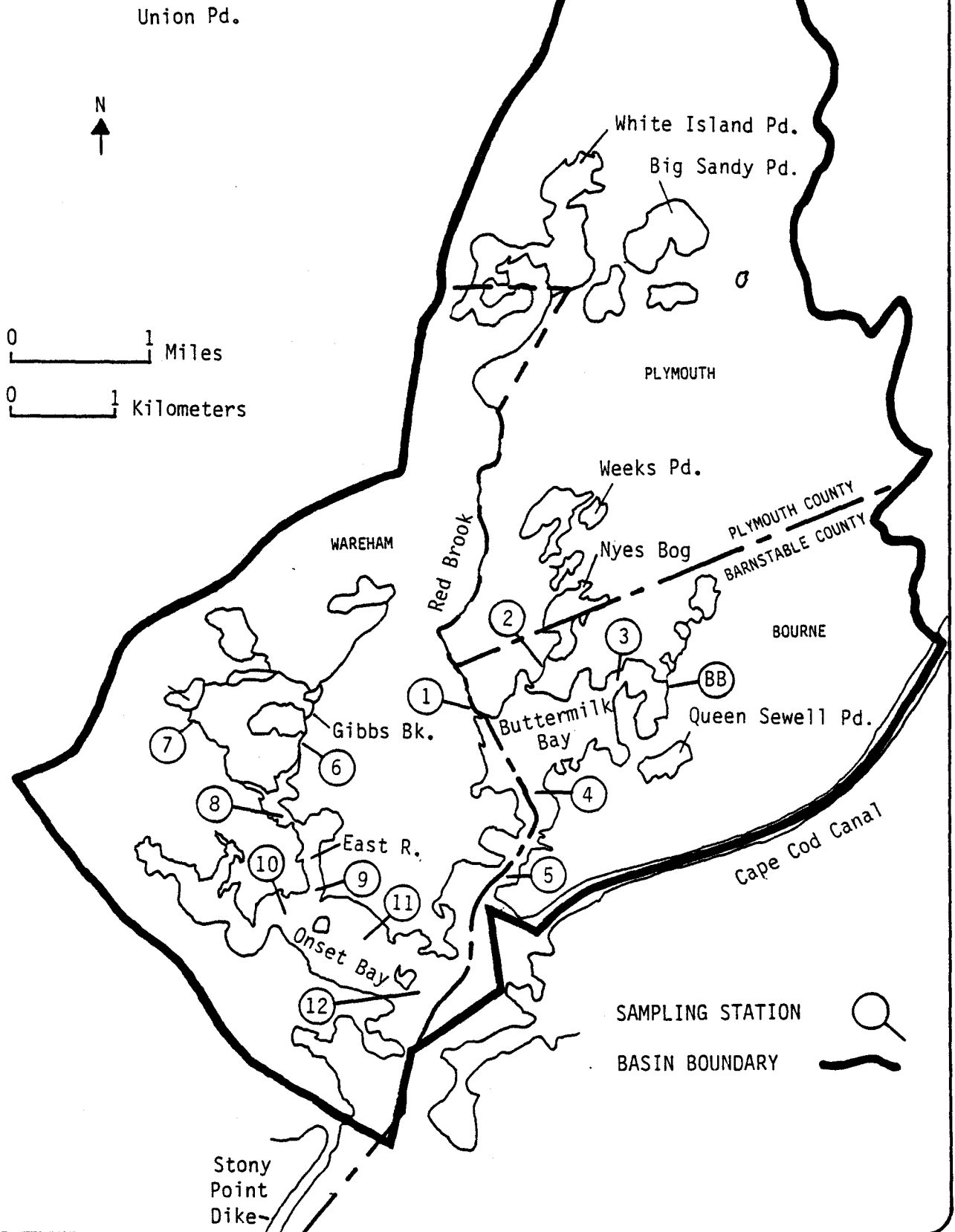


FIGURE 6

AGAWAM- WANKINCO- WAREHAM
RIVER DRAINAGE BASIN

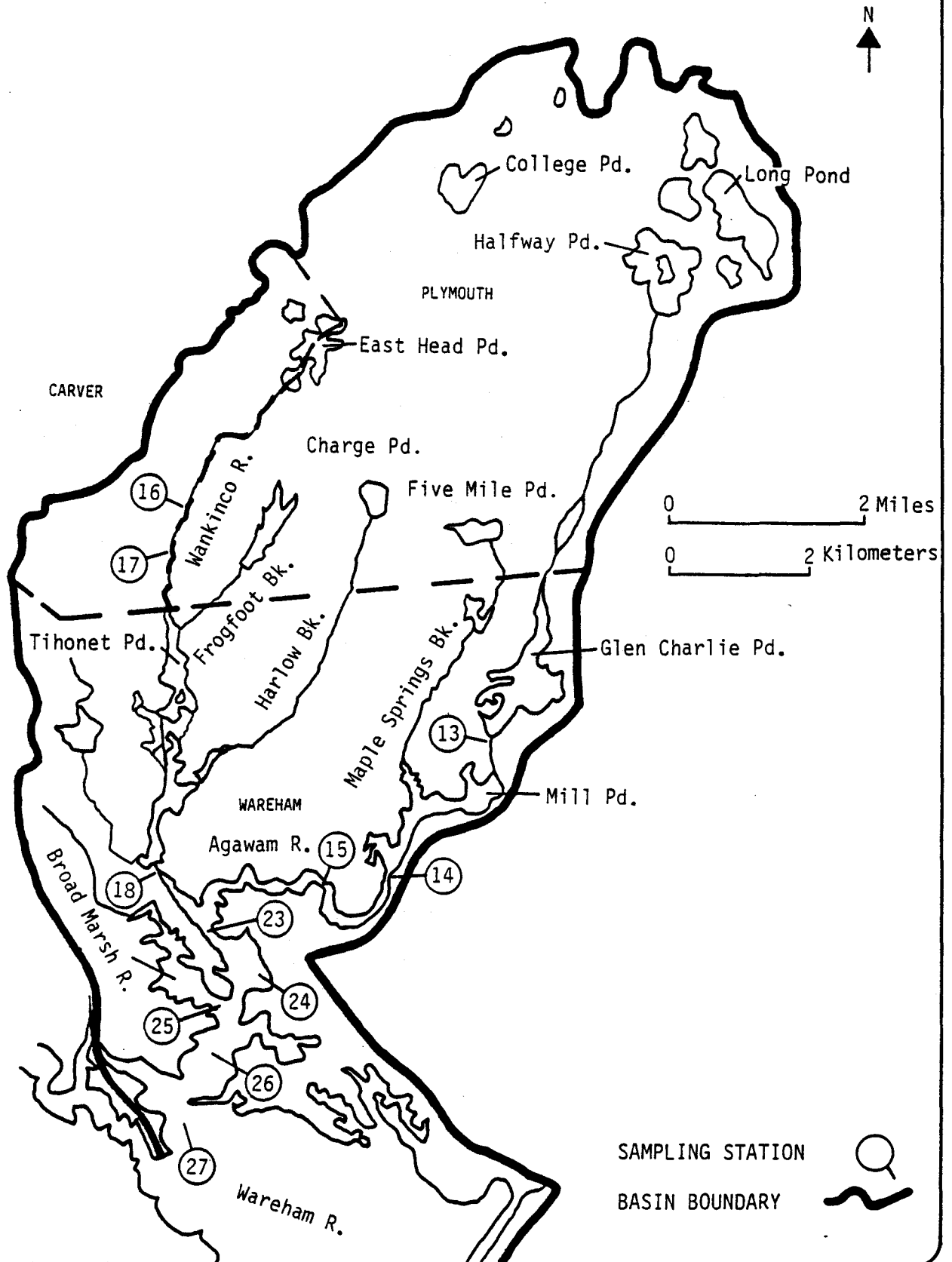


FIGURE 7

WEWEANTIC-SIPPICAN R./SIPPICAN HARBOR
DRAINAGE BASIN

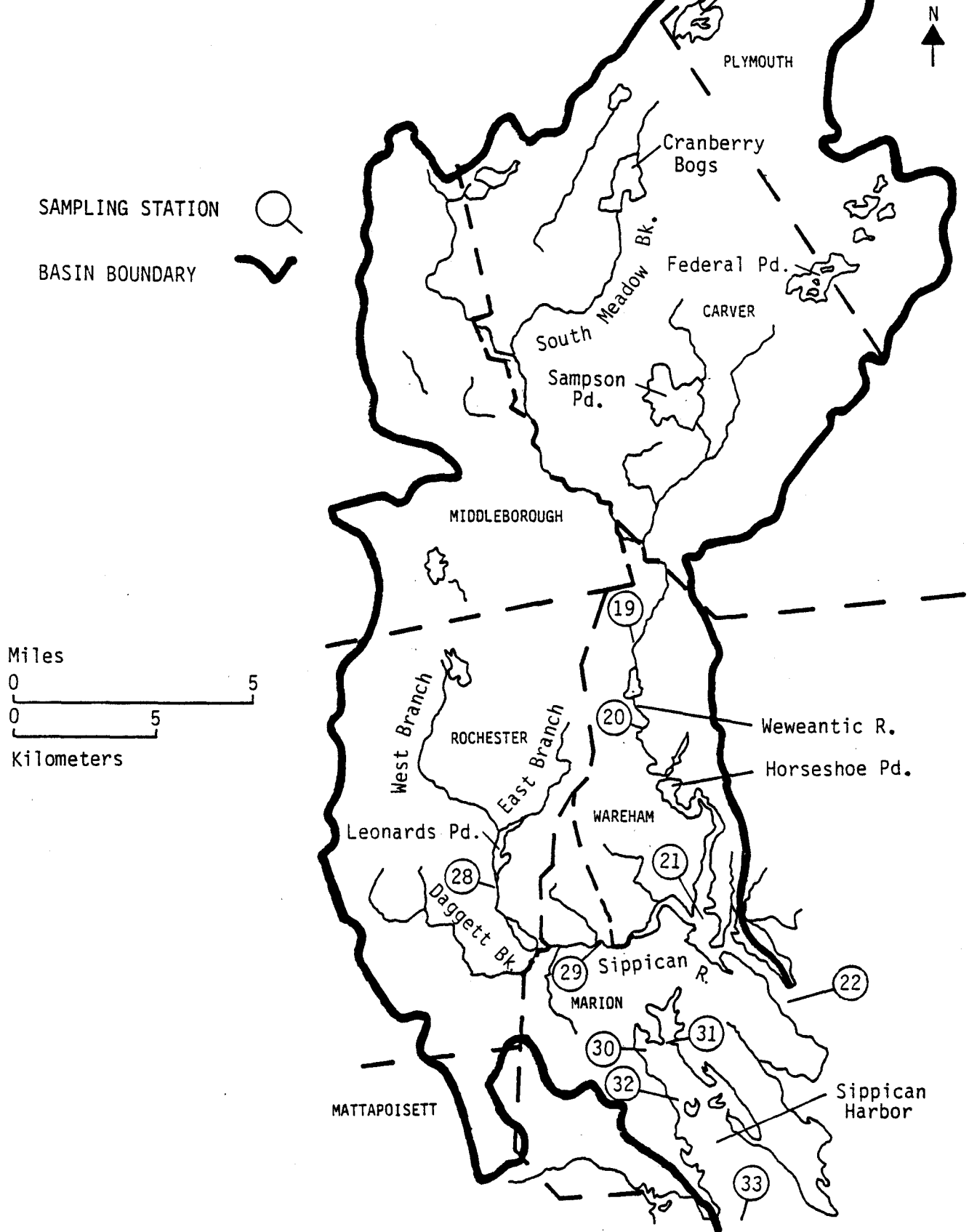


FIGURE 8

MATTAPOISETT RIVER/HARBOR
DRAINAGE BASIN

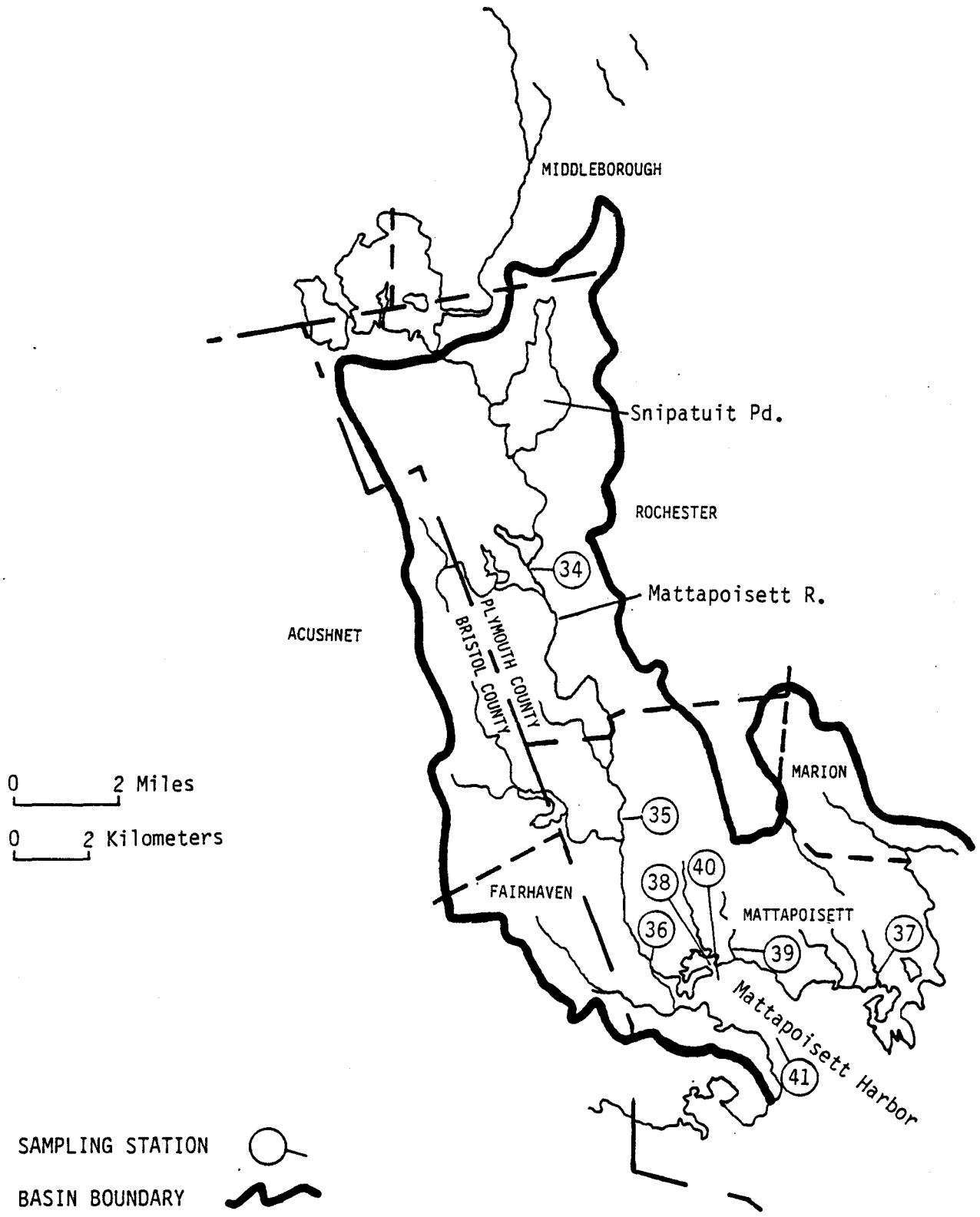


TABLE 4

1985 BUZZARDS BAY WATER QUALITY SURVEY

STATION LOCATIONS - AREA III

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>Cape Cod Canal (13)</u>					
1CC020	Cape Cod Canal by Massachusetts Maritime Academy, Bourne	41°44'17"	70°37'27"	8/27/85	Inner Embayment
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010	Outlet from Mill Pond at County Road, Bourne	41°43'36"	70°36'05"	8/27-28/85	Freshwater
3BR030	Back River, Shore Road bridge, Bourne	41°43'43"	70°36'50"	8/27-28/85	Intertidal
4BR050	Mouth of Back River at Nun #14, Bourne	41°43'19"	70°37'27"	8/27/85	Inner Embayment
5PH030	Phinneys Harbor mid-channel at Can #11, Bourne	41°43'03"	70°37'27"	8/27/85	Inner Embayment
6PH060	Mouth of Phinneys Harbor at blinking red can (BRC), Bourne	41°42'41"	70°38'02"	8/27/85	Inner Embayment
7TI020	Pier on Toby's Island, Bourne	41°42'50"	70°37'05"	8/27-28/85	Intertidal
<u>Pocasset River Drainage Basin (14)</u>					
8PR010	Shoe Pond outlet, County Road, Bourne	41°41'49"	70°35'20"	8/27-28/85	Freshwater
<u>Pocasset Harbor Drainage Basin (15)</u>					
9PR040	Pocasset River at Shore Road bridge, Bourne	41°41'45"	70°37'09"	8/27-28/85	Intertidal
10PH010	Barlow's Landing, Bourne	41°41'27:	70°37'32"	8/27-28/85	Intertidal

TABLE 4 (CONTINUED)

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>Pocasset Harbor Drainage Basin (15) Continued</u>					
11POH030	Pocasset Harbor at Can #1, Bourne	41°41'04"	70°38'17"	8/27/85	Inner Embayment
12POH080	Mouth of Pocasset Harbor at Nun #2, Bourne	41°40'47"	70°38'44"	8/27/85	Inner Embayment
13PP050	Patuisset Pier off Circuit Avenue, Bourne	41°41'08"	70°37'49"	8/27-28/85	Intertidal
<u>Red Brook Harbor Drainage Basin (15)</u>					
14POH040	Mouth of Hen Cove, Bourne	41°40'50"	70°37'27"	8/27/85	Inner Embayment
15RBH030	Red Brook Harbor at Can #13, Bourne	41°40'30"	70°37'24"	8/27/85	Inner Embayment
16RH020	Red Brook Pond outlet at Shore Road bridge, Bourne	41°40'40"	70°36'43"	8/27-28/85	Freshwater
17RH010	Outlet from cranberry bog discharging to Red Brook Pond off County Road, Bourne	41°40'43"	70°36'21"	8/27-28/85	Freshwater
18HC010	Mouth of Hospital Cove at Can #1, Bourne	41°40'18"	70°38'14"	8/27/85	Inner Embayment
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110	Outlet from cranberry bog off Sandwich Road by Ward & Swift streets, Bourne	41°40'31"	70°36'08"	8/27-28/85	Freshwater
20MH140	Outlet from Cuffs Pond at County Road culvert, Bourne	41°39'52"	70°36'30"	8/27-28/85	Freshwater
21MH170	Outlet of Cuffs Pond at Megansett Road by Amrita Island, Bourne	41°39'34"	70°36'58"	8/27-28/85	Intertidal
22MH180	Megansett Harbor at town landing, Falmouth	41°39'27"	70°37'35"	8/27-28/85	Intertidal

TABLE 4 (CONTINUED)

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>Megansett Harbor Drainage Basin (15) (Continued)</u>					
23MRH010	Outlet of Cedar Lake at culvert on Abbies Lane, Falmouth	41°39'00"	70°37'30"	8/27-28/85	Freshwater
24MRH020	Mouth of Rands Harbor, Falmouth	41°39'04"	70°37'51"	8/27-28/85	Intertidal
25MFC030	Mouth of Fiddlers Cove, Falmouth	41°38'53"	70°38'11"	8/27-28/85	Intertidal
26MH0190	Center of Megansett Harbor at Nun #2, Falmouth	41°39'08"	70°38'46"	8/28/85	Inner Embayment
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010	Wild Harbor River at Chester Street culvert, Falmouth	41°38'02"	70°38'00"	8/27-28/85	Freshwater
28WH020	Head of Wild Harbor off pier on Bay Shore Road, Falmouth	41°38'07"	70°38'53"	8/27-28/85	Intertidal
29WH050	Mouth of Wild Harbor at Can #3, Falmouth	41°38'12"	70°39'08"	8/28/85	Inner Embayment
<u>Herring Brook Drainage Basin (16)</u>					
30HB010	Mouth of Herring Brook at bridge on Old Silver Beach Road, Falmouth	41°37'26"	70°38'22"	8/27-28/85	Intertidal
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020	Snug Harbor at Nashwena Road culvert, Falmouth	41°36'34"	70°38'17"	8/27-28/85	Intertidal
32WFH030	West Falmouth Harbor at Chappaquoit Bridge, Falmouth	41°35'50"	70°38'36"	8/27-28/85	Intertidal

TABLE 4 (CONTINUED)

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	DATES SAMPLED	STATION TYPE
<u>West Falmouth Harbor Drainage Basin (16) Continued</u>					
33WFH040	West Falmouth Harbor at inner entrance off Associates Road, Falmouth	41°36'15"	70°38'43"	8/27-28/85	Intertidal
34WFH050	Mouth of West Falmouth Harbor at Nun #4, Falmouth	41°36'18"	70°39'11"	8/28/85	Inner Embayment
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020	Mouth of Sippewisset Creek, off Black Beach Road, Falmouth	41°35'00"	70°38'35"	8/27-28/85	Intertidal
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020	Mouth of Little Sippewisset Creek off Wood Neck Beach Road, Falmouth	41°35'35"	70°38'30"	8/27-28/85	Intertidal
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030	Center Harbor at Can #7, Falmouth	41°32'24"	70°39'38"	8/28/85	Inner Embayment
38QH040	Mouth of Quissett Harbor at Can #3, Falmouth	41°32'20"	70°39'52"	8/28/85	Inner Embayment

FIGURE 9 AREA III
COASTAL DRAINAGE BASINS
NORTH and SOUTH

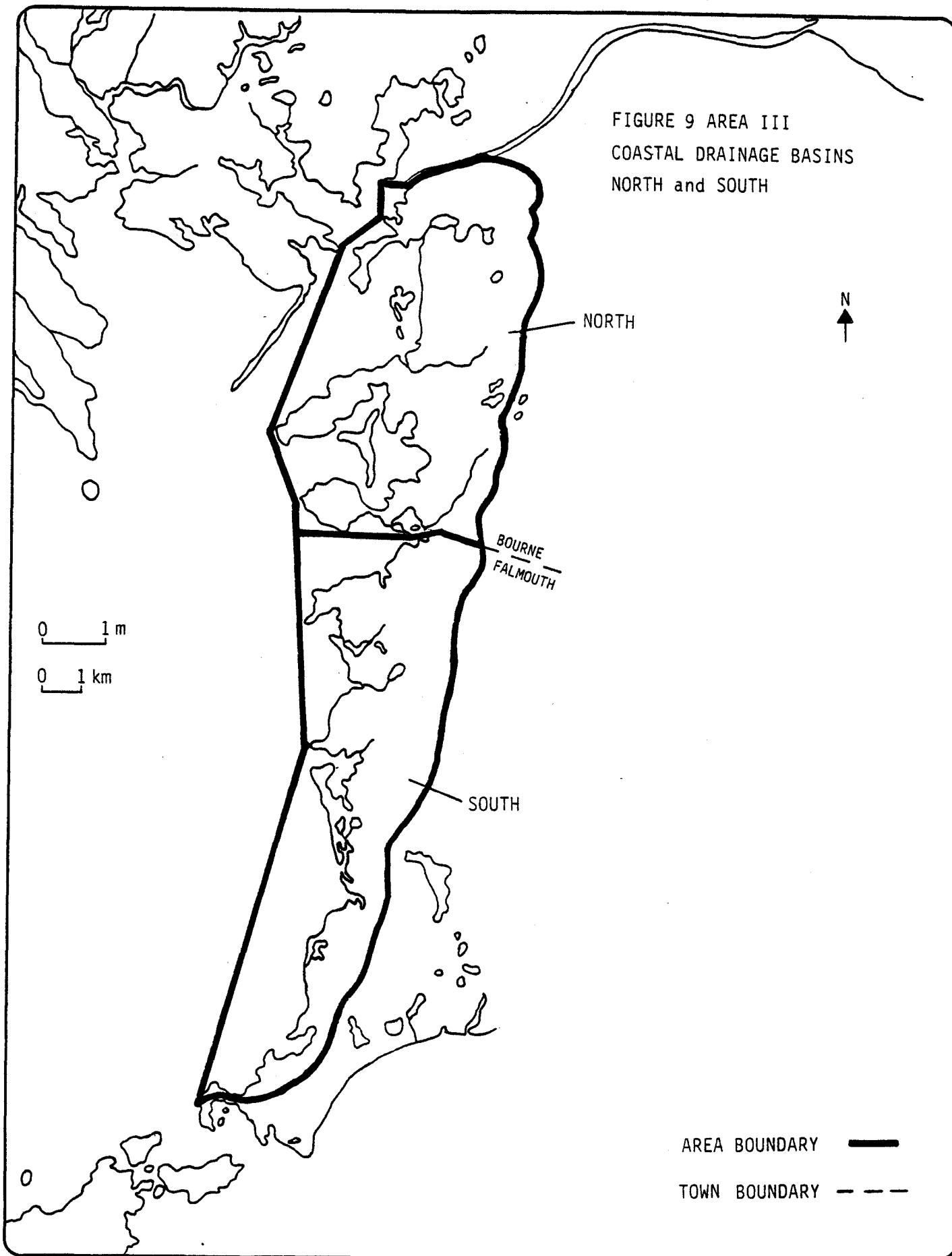
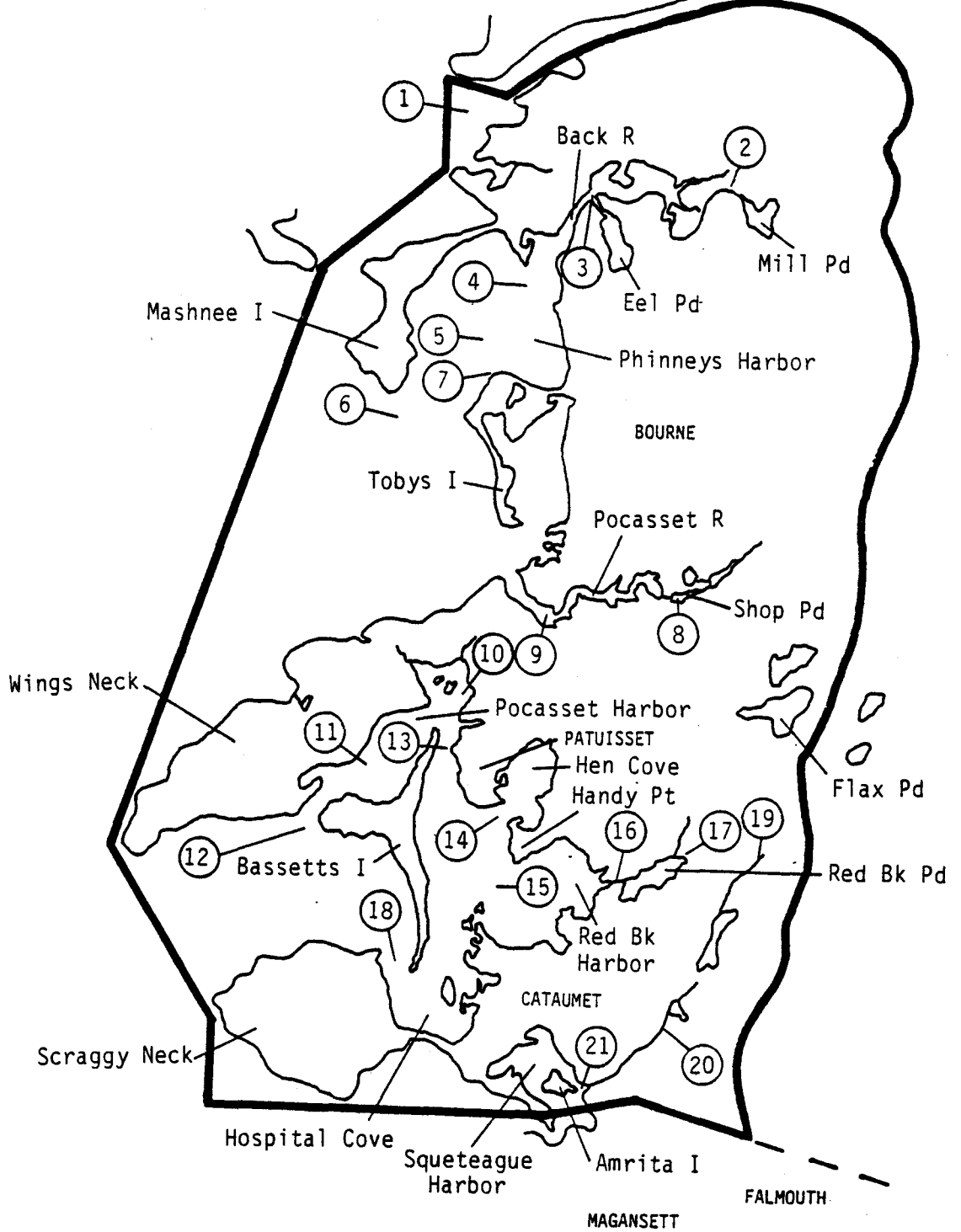


FIGURE 10 AREA III NORTH SAMPLING STATION LOCATIONS



SAMPLING STATION



BASIN BOUNDARY



0 1 m

0 1 km

FIGURE 11 AREA III SOUTH SAMPLING STATION LOCATIONS

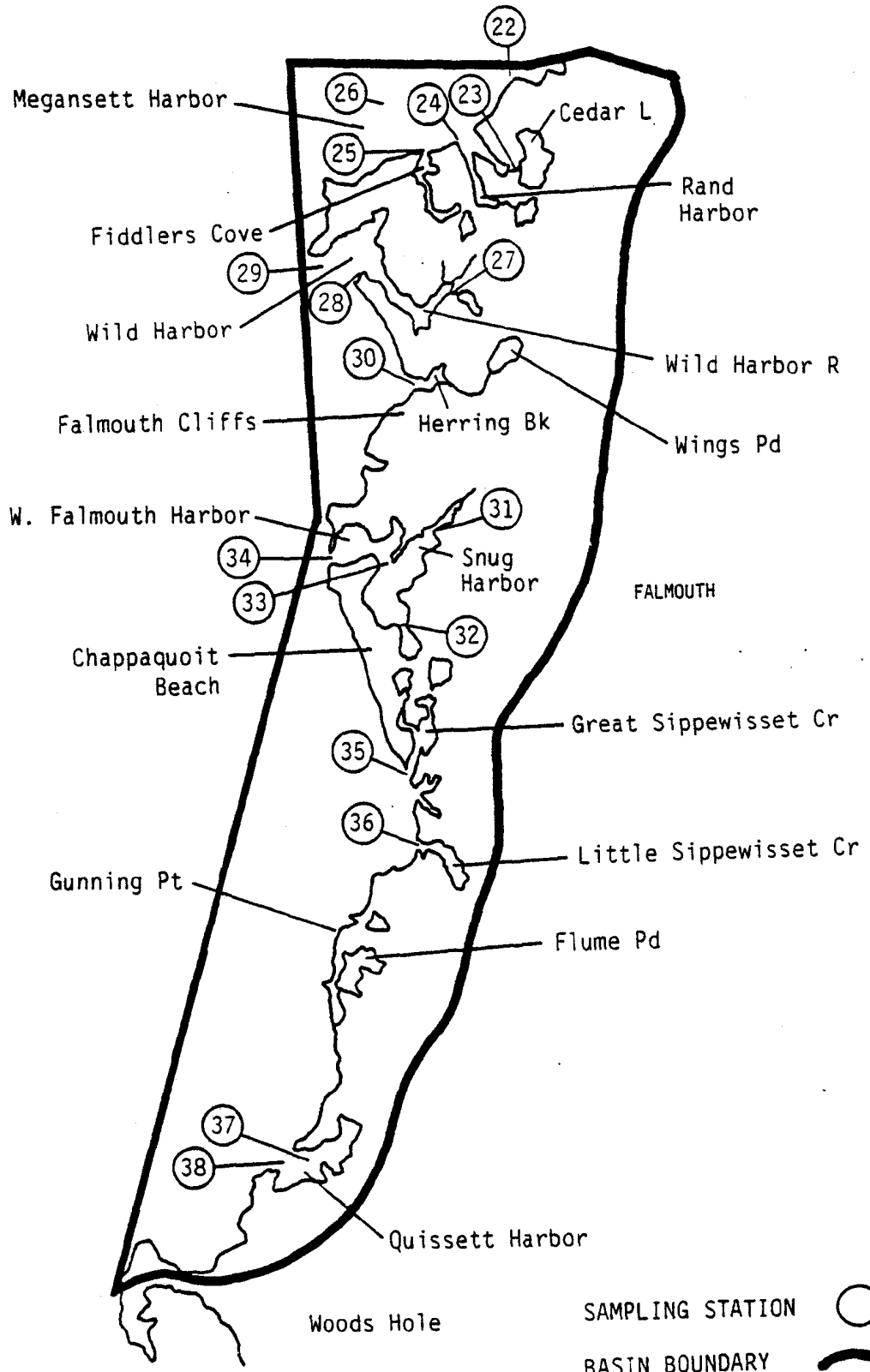


TABLE 5
 1985 BUZZARDS BAY WATER QUALITY SURVEY
 STATION LOCATIONS - AREA V OUTER BAY

STATION NUMBER	LOCATION DESCRIPTOR	LATITUDE	LONGITUDE	LORAN C BEARINGS		DATE SAMPLED
42WA0400	Hole or basin south of Indian Neck and north of Little Bird Island, Wareham	41°42'	70°42'	14 100	25 503	8/13/85
43SH0500	Sippican Harbor off flashing red marker, outside of 20 foot depth contour, Marion	41°40'	70°44'	14 122	25 507	8/13/85
44BU0300	Anchorage area west of shipping channel and inside 30 foot depth contour, Marion	41°40'	70°41'	14 103.9	25 484.0	8/13/85
44CC01	Berthing Basin Cape Cod Canal, Bourne	41°43'.81	73°37'.81	14 066.4	25 474.8	8/28/85
46WH008	Wild Harbor outside of 30 foot depth contour, Falmouth	41°38'.10	70°39'.20	14 099.8	25 454.6	8/28/85
47CL020	Clevelands Ledge, Falmouth	41°35'.38	70°41'.60	14 125.5	25 461.2	8/28/85

FIGURE 12 AREA V SAMPLING STATION LOCATIONS

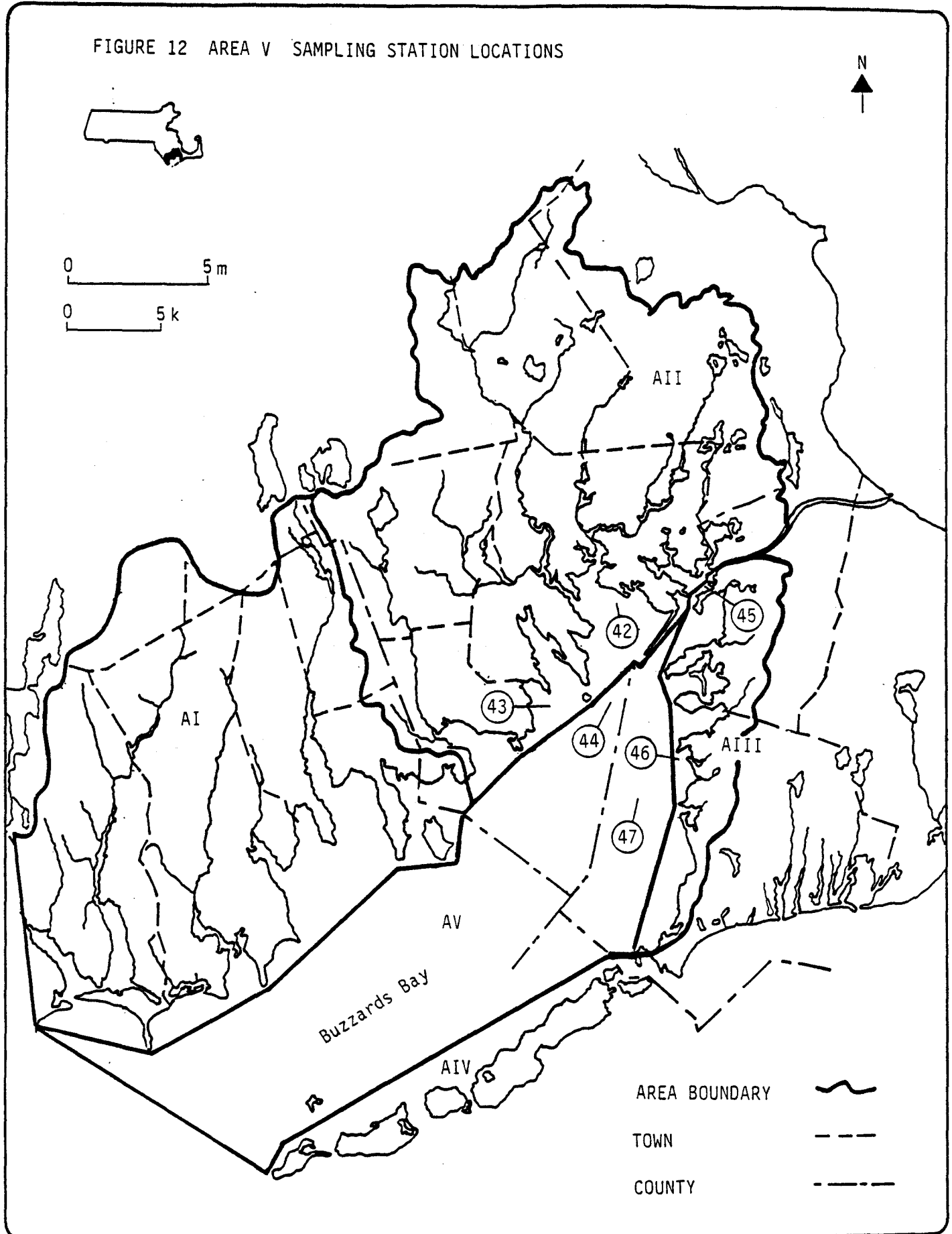


TABLE 6

1985 BUZZARDS BAY WATER QUALITY SURVEY

SUMMARY OF METEOROLOGICAL CONDITIONS

(Recorded at East Wareham Cranberry Experiment Station)

Lat 41°46' Long 70°40'W

Date:	5/17	5/18	5/19	5/20	5/21	5/22	
Maximum Temperature (°F):	69	65	59	64	65	73	
Minimum Temperature (°F):	55	45	44	54	58	54	
Rainfall (in):	0.09	--	0.07	0.18	--	0.85	
Date:	8/8	8/9	8/10	8/11	8/12	8/13	8/14
Maximum Temperature (°F):	76	86	82	80	76	77	85
Minimum Temperature (°F):	68	69	68	67	59	55	72
Rainfall (in):	0.78	0.56	--	--	--	--	--
Date:	8/22	8/23	8/24	8/25	8/26	8/27	8/28
Maximum Temperature (°F):	75	77	76	72	77	84	82
Minimum Temperature (°F):	60	53	55	67	70	70	64
Rainfall (in):	0.01	--	--	0.11	4.19	0.38	--

NOTE: Sample dates highlighted in bold type
 Data compiled National Climate Data Center
 Climatological Data New England, May 1985, Volume 97, Number 5
 Climatological Data New England, August 1985, Volume 97, Number 8

TABLE 7

1985 BUZZARDS BAY WATER QUALITY SURVEYS

COMPARISON OF PARAMETERS MEASURED VS. AREA AND STATION CLASS

PARAMETER	AREA AND STATION CLASS						
	A2 FW	A3 FW	A2 INT	A3 INT	A2 IB	A3 IB	A5 OB
Actual vs. Proposed Number of Stations	16-17	6-6	10-10	18-18	15-15	14-14	6-6
Temperatures	68-72	32-32	47-47	62-64	21-21	13-14	12-12
pH in situ	40-72	26-32	46-47	32-64	17-21	0	0
Specific Conductivity	65-72	32-32	46-47	62-64	19-21	14-14	12-12
Chloride	65-72	32-32	46-47	62-64	19-21	14-14	12-12
Total Alkalinity	34-72	32-32	0	62-64	0	0	0
Total Solids	65-72	32-32	46-47	62-64	19-21	14-14	12-12
Suspended Solids	65-72	32-32	44-47	62-64	19-21	14-14	12-12
Dissolved Solids	27-72	0	39-47	0	0	0	0
Turbidity	37-72	32-32	6-47	53-64	19-21	14-14	12-12
Dissolved Oxygen	68-72	32-32	47-47	63-64	21-21	14-14	12-12
Ammonia-Nitrogen	67-72	32-32	47-47	63-64	21-21	14-14	12-12
Nitrate-Nitrogen	67-72	28-32	Intfer	Intfer	Intfer	Intfer	Intfer
Total Kjeldahl-Nitrogen	67-72	32-32	47-47	63-64	12-21	14-14	12-12
Total Phosphorus	67-72	32-32	47-47	63-64	21-21	14-14	12-12
Orthophosphate	67-72	32-32	47-47	62-64	21-21	14-14	12-12
Total Coliform	68-72	32-32	46-47	63-64	21-21	14-14	11-12
Fecal Coliform	68-72	32-32	46-47	63-64	21-21	14-14	11-12
BOD ₅	65-69	28-28	41-41	62-64	0	4-4	0
Total Metals	35-35	16-16	60-60	51-52	18-18	14-14	11-12
Flow	6-6	3-3	0	0	0	0	0
Depth	0	0	0	0	0	0	6-6

TABLE 8

1985 BUZZARDS BAY AREA II FRESHWATER STATIONS DISSOLVED OXYGEN DATA

TIME (hrs) - TEMPERATURE (°C) - DISSOLVED OXYGEN (mg/l) - SATURATION (%)

DATE:		5/22/85	8/13/85	8/13/85	8/14/85	8/14/85
RUN:		1	1	2	3	4
<u>STATION</u>		<u>Buttermilk Bay Drainage Basin (11)</u>				
2BB020	*	1530	0355	1421	0346	1355
	**	21.0	22.2	25.0	22.2	27.2
	***	8.8	4.9	8.2	4.5	9.0
	****	100.0	56.3	100.0	51.7	113.9
BB030		1540	--	--	--	--
		14.0	--	--	--	--
		7.4	--	--	--	--
		71.8	--	--	--	--
		<u>Onset Bay Drainage Basin (12)</u>				
6GB040		--	0425	1400	0405	1417
		--	18.3	25.0	23.3	26.1
		--	5.3	5.5	4.9	5.2
		--	56.4	67.1	57.6	65.0
7UP010		Not sampled - insufficient flow				
		<u>Agawam River Drainage Basin (10)</u>				
13AR070		1130	0905	1741	0807	1735
		17.0	23.3	25.6	25.0	27.2
		8.7	7.9	8.1	7.2	8.0
		90.0	92.9	101.2	87.8	101.3
14AR080		1145	0917	1754	0819	1753
		17.0	23.3	24.4	23.9	26.1
		9.1	8.2	7.9	7.3	7.5
		94.8	96.5	95.2	88.0	93.8

* Time (hr)

** Temperature (°C)

*** Dissolved Oxygen (mg/l)

**** Percent Saturation (%)

TABLE 8 (CONTINUED)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85
RUN:	1	1	2	3	4
<u>STATION</u>					
<u>Wankinco River Drainage Basin (10)</u>					
16WR0060	--	0834	1716	0655	1700
	--	17.2	22.8	18.3	23.3
	--	9.1	9.7	6.8	9.2
	--	94.8	114.1	72.3	108.2
17WR0070	--	0746	1801	0725	1656
	--	15.0	21.0	16.1	22.0
	--	7.5	8.2	6.7	8.4
	--	75.0	93.2	68.4	96.5
<u>Weweantic River Drainage Basin (10)</u>					
19WE0110	1046	0813	1650	0637	1645
	17.0	21.1	23.3	22.2	25.6
	4.6	3.8	4.4	3.6	3.1
	47.9	43.2	51.8	41.4	38.8
20WE0120	1100	0757	1637	0626	1628
	18.0	22.2	23.9	21.1	25.6
	8.2	6.4	6.5	6.5	6.9
	87.2	73.6	78.3	73.9	86.3
<u>Sippican River Drainage Basin (10)</u>					
28SR0150	1011	0717	1608	0602	1603
	18.0	22.8	25.6	22.2	25.0
	7.6	6.7	6.3	5.6	5.7
	79.2	78.8	78.8	64.4	69.5
29SR0160	1025	0732	1622	0614	1616
	16.0	20.0	22.8	21.7	23.3
	5.6	5.2	5.0	4.0	3.7
	57.1	57.8	58.8	46.0	43.5
<u>Mattapoissett River Drainage Basin (8)</u>					
34MR010	--	0703	1554	0549	1555
	--	17.8	23.8	20.0	25.0
	--	6.5	7.0	5.9	6.4
	--	69.1	84.3	65.6	78.0

TABLE 8 (CONTINUED)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85
RUN:	1	1	2	3	4
<u>STATION</u>					
<u>Mattapoissett River Drainage Basin (8) Continued</u>					
35MR050	--	0615	1536	0532	1530
	--	18.9	21.1	20.6	22.8
	--	6.3	6.1	6.2	6.0
	--	68.5	69.3	70.5	70.6
36MR080	--	0556	1519	0518	1524
	--	20.5	26.1	21.1	25.6
	--	4.6	6.5	4.7	5.9
	--	52.3	81.2	53.4	73.8
<u>Mattapoissett Harbor Drainage Basin (8)</u>					
37PI010	--	0522	1454	0440	1500
	--	16.1	23.3	19.4	26.7
	--	5.7	6.6	4.8	5.7
	--	58.2	77.6	52.2	72.2
39MH010	--	0546	1509	0454	1513
	--	16.1	20.6	19.4	22.8
	--	7.4	7.1	6.8	6.4
	--	75.5	80.7	73.9	75.3

TABLE 9

1985 BUZZARDS BAY AREA II TIDAL STATIONS DISSOLVED OXYGEN DATA

TIME (hrs) - TEMP (°C) - CHLORIDE (mg/l) - DISSOLVED OXYGEN (mg/l) - SATURATION (%)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85
RUN:	1	1	2	3	5

STATIONButtermilk Bay Drainage Basin (11)

1RB010	*	1518	0847	1550	1011	1631
	**	17.0	13.3	20.0	17.2	21.7
	***	12	12	23	27	18
	****	9.0	8.6	9.1	8.7	9.0
	*****	93.8	81.9	101.1	90.6	103.4
3BB040		1555	0908	1614	1030	1645
		18.0	21.7	25.0	25.0	26.7
		15500	15250	15000	16500	15000
		9.7	6.2	9.9	5.0	9.1
		122.0	83.8	141.4	72.5	135.8
4BB050		1625	0921	1630	1051	1704
		16.0	20.6	20.0	22.2	21.1
		--	16500	17500	16000	11500
		8.4	7.1	9.0	8.8	8.9
		--	95.0	120.3	120.3	113.1
5BB060		1500	--	--	1150	--
		19.0	--	--	22.8	--
		16500	--	--	12000	--
		8.4	--	--	6.9	--
		108.2	--	--	91.6	--

Onset Bay Drainage Basin (12)

8MC020	--	0830	1538	0950	1619
	--	20.6	25.0	23.9	25.6
	--	16500	14500	16500	17000
	--	5.9	8.9	5.9	9.1
	--	79.0	126.6	84.5	137.0

* Time (hr)
 ** Temperature (°C)
 *** Chloride (mg/l)
 **** Dissolved Oxygen (mg/l)
 ***** Percent Saturation (%)
 (--) No samples taken

TABLE 9 (CONTINUED)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85
RUN:	1	1	2	3	4
<u>STATION</u>	<u>Onset Bay Drainage Basin (12) Continued</u>				
9ER030	--	0816	1526	0940	1608
	--	20.0	23.9	22.8	26.1
	--	17250	19000	20500	17500
	--	6.5	8.3	6.7	8.0
	--	86.2	122.4	98.5	121.1
10OB0300	--	--	--	1105	--
	--	--	--	23.9	--
	--	--	--	16500	--
	--	--	--	6.5	--
	--	--	--	93.2	--
11OB0200	--	--	--	1120	--
	--	--	--	22.8	--
	--	--	--	18000	--
	--	--	--	6.9	--
	--	--	--	97.9	--
12OB0400	--	--	--	1130	--
	--	--	--	22.8	--
	--	--	--	16800	--
	--	--	--	7.4	--
	--	--	--	103.7	--
<u>Agawam River Drainage Basin (10)</u>					
15AR090	1457	0801	1506	0933	1552
	19.0	21.1	26.7	23.9	27.8
	41	1300	350	2050	1550
	9.4	5.5	8.4	6.1	10.1
	102.2	63.1	106.3	75.0	133.2
18WR0100	1201	0736	1443	0859	1524
	18.0	21.7	25.0	23.9	25.0
	34	450	17	1475	23
	9.8	7.2	7.7	6.5	7.3
	104.3	83.1	93.9	79.5	89.0
<u>Weweantic River Drainage Basin (10)</u>					
21WE0130	1410	0721	1429	0840	1501
	19.0	20.0	27.2	23.9	26.7
	5500	7750	8400	9500	11000
	5.9	5.5	9.1	6.0	6.3
	67.4	65.8	125.8	80.0	89.7

TABLE 9 (CONTINUED)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85
RUN:	1	1	2	3	4

STATION

Weweantic River Drainage Basin (10) Continued

22WE0140	1315	--	--	0855	--
	19.0	--	--	24.4	--
	--	--	--	12000	--
	6.9	--	--	6.3	--
	--	--	--	85.9	--

Wareham River Drainage Basin (10)

23WA0170	1443	0750	1458	0914	1538
	19.0	21.7	26.7	24.4	27.8
	9500	10750	11600	12000	11000
	8.1	6.5	8.4	5.6	8.8
	97.1	84.0	120.5	76.4	129.0

24WA0180	1138	--	--	0945	--
	18.0	--	--	25.6	--
	11000	--	--	13000	--
	7.2	--	--	6.3	--
	85.6	--	--	90.5	--

25WA0190	1205	--	--	0930	--
	16.0	--	--	25.6	--
	12000	--	--	14000	--
	7.4	--	--	6.3	--
	86.0	--	--	90.5	--

26WA0200	1245	--	--	0920	--
	16.7	--	--	24.4	--
	14000	--	--	15000	--
	7.7	--	--	5.6	--
	92.8	--	--	78.9	--

27WA0210	1300	--	--	0910	--
	17.0	--	--	24.4	--
	--	--	--	15000	--
	9.1	--	--	6.5	--
	--	--	--	91.5	--

Sippican Harbor Drainage Basin (9)

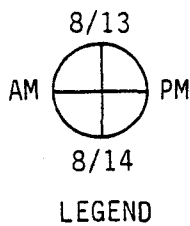
30SH0100	--	0935	--	--	--
	--	23.9	--	--	--
	--	17500	--	--	--
	--	5.8	--	--	--
	--	83.3	--	--	--

TABLE 9 (CONTINUED)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85
RUN:	1	1	2	3	4
<u>STATION</u>					
<u>Sippican Harbor Drainage Basin (9) Continued</u>					
31SH0200	--	0950	--	--	--
	--	23.9	--	--	--
	--	18000	--	--	--
	--	5.3	--	--	--
	--	77.2	--	--	--
32SH0300	--	1005	--	--	--
	--	23.9	--	--	--
	--	18000	--	--	--
	--	6.9	--	--	--
	--	100.5	--	--	--
33SH0400	--	0905	--	--	--
	--	22.8	--	--	--
	--	17500	--	--	--
	--	7.2	--	--	--
	--	101.8	--	--	--
<u>Mattapoisett Harbor Drainage Basin (8)</u>					
38MH0300	--	0648	1349	0755	1425
	--	20.0	27.2	23.3	31.0
	--	16150	10000	16000	10000
	--	4.2	6.1	4.4	6.0
	--	55.3	85.9	61.0	90.9
40MH0700	--	0815	--	--	--
	--	22.2	--	--	--
	--	17500	--	--	--
	--	6.1	--	--	--
	--	84.8	--	--	--
41MH0800	--	0840	--	--	--
	--	22.2	--	--	--
	--	18000	--	--	--
	--	6.7	--	--	--
	--	93.7	--	--	--

FIGURE 13
 1985 BUZZARDS BAY WATER QUALITY SURVEY
 COMPARISON OF DISSOLVED OXYGEN LEVELS (mg/l) IN FRESHWATER
 AND INTERTIDAL STATIONS WITHIN BUZZARDS BAY AREA II
 8/13-14/85

STATION #	STATION TYPE		STATION #	STATION TYPE	
Buttermilk Bay			Weweantic River		
1RB010	Int		19WE0110	FW	
2BB020	FW		20WE0120	FW	
3BB040	Int		21WE0130	Int	
4BB050	Int		Sippican River		
Onset Bay			28SR0150	FW	
6GB040	FW		29SR0160	FW	
8MC020	Int		Wareham River		
9ER030	Int		23WA0170	Int	
Agawam River			Mattapoissett River		
13AR070	FW		34MR010	FW	
14AR080	FW		35MR050	FW	
15AR090	Int		36MR080	FW	
Wankinco River			Mattapoissett Harbor		
16WR060	FW		37PI010	FW	
17WR070	FW		38MH000	Int	
18WR0100	Int		39MH010	FW	



≤5.0 mg/l	
5.1-6.0	
6.1-6.5	
≥6.6	

TABLE 10

1985 BUZZARDS BAY AREA III FRESHWATER STATIONS DISSOLVED OXYGEN DATA

TIME (hrs) - TEMP. (°C) - DISSOLVED OXYGEN (mg/l) - SATURATION (%)

DATE:	8/27/85	8/27/85	8/28/85	8/28/85
RUN:	1	2	3	4

STATIONPhinneys Harbor Drainage Basin (14)

2BR010	*	0430	1523	0417	1603
	**	21.1	21.6	17.8	18.9
	***	5.9	6.4	7.0	7.2
	****	67.0	73.6	74.5	76.7

Pocasset River Drainage Basin (14)

8PR010		0447	1533	0430	1616
		16.7	20.6	18.9	22.2
		6.5	7.3	7.0	7.6
		67.7	83.0	76.1	87.3

Red Brook Harbor Drainage Basin (15)

16RH020		0529	1624	0503	1700
		21.1	22.2	20.6	23.9
		7.8	8.0	8.0	8.8
		88.6	92.0	90.9	106.0
17RH010		0515	1554	0452	1650
		13.9	15.0	11.7	13.3
		7.1	9.0	7.8	9.6
		68.9	90.0	72.2	91.4

Megansett Harbor Drainage Basin (15)

19MH110		0502	1543	0443	1629
		17.2	22.2	13.9	19.4
		4.2	12.4	5.9	12.4
		43.8	142.5	57.3	134.8
20MH140		0540	1613	0515	1709
		21.6	23.3	21.1	23.3
		4.9	4.2	3.3	4.1
		56.3	49.4	37.5	48.2

* Time (hr)
 ** Temperature (°C)
 *** Dissolved Oxygen (mg/l)
 **** Percent Saturation (%)

TABLE 10 (CONTINUED)

DATE:	8/27/85	8/27/85	8/28/85	8/28/85
RUN:	1	2	3	4

STATION

Megansett Harbor Drainage Basin (15) Continued

23MRH010	0440	1316	0448	1253
	23.3	26.1	22.8	25.0
	6.5	7.3	6.4	7.6
	76.5	91.3	75.3	92.7

Wild Harbor Drainage Basin (16)

27WH010	0510	1340	0511	1304
	22.2	27.2	22.2	26.1
	6.4	8.9	7.3	9.5
	73.6	112.7	83.9	118.8

TABLE 11

1985 BUZZARDS BAY AREA III TIDAL STATIONS DISSOLVED OXYGEN DATA
 TIME (hrs) - TEMP. (°C) - DISSOLVED OXYGEN (mg/l) - CHLORIDE (mg/l)

SATURATION (%)

DATE:	8/27/85	8/27/85	8/28/85	8/28/85
RUN:	1	2	3	4

STATIONCape Cod Canal (13)

1CC020	*	0750	--	--	--
	**	21.6	--	--	--
	***	6.1	--	--	--
	****	17500	--	--	--
	*****	76.6	--	--	--

Phinneys Harbor Drainage Basin (14)

3BR030		0715	1803	0958	1825
		23.2	22.8	21.1	22.2
		5.0	8.5	5.8	8.8
		10000	14500	13000	14750
		64.9	115.8	74.6	118.9
4BR050		0835	--	--	--
		22.8	--	--	--
		7.6	--	--	--
		15000	--	--	--
		104.1	--	--	--
5PH030		0840	--	--	--
		22.8	--	--	--
		6.9	--	--	--
		15500	--	--	--
		95.1	--	--	--
6PH060		0820	--	--	--
		22.8	--	--	--
		6.3	--	--	--
		17000	--	--	--
		88.3	--	--	--

*	Time (hr)	ND = No data
**	Temperature(°C)	(--)= Not sampled
***	Dissolved Oxygen (mg/l)	8/27/85 high tide 0612 - low tide 1224
****	Chlorides (mg/l)	8/28/85 high tide 0704 - low tide 1317
*****	Percent Saturation (%)	

TABLE 11 (CONTINUED)

DATE:	8/27/85	8/27/85	8/28/85	8/28/85
RUN:	1	2	3	4
<u>STATION</u>				
<u>Phinneys Harbor Drainage Basin (14) Continued</u>				
7T1020	1104	1750	0945	1810
	23.3	23.3	21.1	22.8
	6.9	8.8	6.1	9.2
	16000	15000	15000	15750
	95.6	120.5	80.3	127.1
<u>Pocasset River Drainage Basin (14)</u>				
9PR040	1009	1734	0931	1757
	20.6	22.8	20.6	22.2
	4.6	7.4	4.7	7.8
	12500	15000	13500	12250
	59.1	101.4	61.0	102.4
<u>Pocasset Harbor Drainage Basin (15)</u>				
10PH010	0957	1710	0924	1747
	21.6	24.4	21.1	23.9
	5.9	8.5	5.3	9.1
	10000	11500	15000	14750
	75.6	114.8	69.7	128.2
11POH030	0915	--	--	--
	23.3	--	--	--
	6.4	--	--	--
	15500	--	--	--
	88.2	--	--	--
12POH080	0940	--	--	--
	23.3	--	--	--
	6.4	--	--	--
	16000	--	--	--
	88.7	--	--	--
13PP050	0900	1657	0904	1734
	22.2	23.3	21.1	22.8
	7.1	8.3	6.4	8.2
	15000	15000	16000	16250
	95.9	113.7	85.2	113.6

TABLE 11 (CONTINUED)

DATE:	8/27/85	8/27/85	8/28/85	8/28/85
RUN:	1	2	3	4
<u>STATION</u>				
<u>Red Brook Harbor Drainage Basin (15)</u>				
14POH040	0948	--	--	--
	23.3	--	--	--
	6.4	--	--	--
	14000	--	--	--
	86.7	--	--	--
15RBH030	1002	--	--	--
	23.3	--	--	--
	7.2	--	--	--
	15500	--	--	--
	99.2	--	--	--
18HC010	N.D.	--	--	--
	N.D.	--	--	--
	6.3	--	--	--
	17000	--	--	--
	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>				
21MH170	0803	1638	0841	1719
	20.6	22.8	19.4	21.7
	6.5	6.6	6.3	6.5
	200	19	82	N.D.
	73.9	77.6	68.5	--
22MH180	1023	1624	0945	1729
	23.3	25.0	22.8	23.9
	6.3	8.3	6.7	8.1
	14500	17000	14500	16000
	85.8	121.4	91.2	115.4
24MRH020	1008	1612	0933	--
	23.3	25.0	22.8	--
	5.7	10.3	6.4	--
	6000	16000	12000	--
	71.1	148.9	84.9	--
25MFC030	0933	1600	0920	1710
	22.8	25.0	22.8	24.4
	5.1	10.0	6.3	9.2
	16500	17500	16500	16500
	71.1	147.2	87.8	131.9

TABLE 11 (CONTINUED)

DATE:	8/27/85	8/27/85	8/28/85	8/28/85
RUN:	1	2	3	4
<u>STATION</u>				
<u>Megansett Harbor Drainage Basin (15) Continued</u>				
26MHO190	--	--	0915	--
	--	--	22.8	--
	--	--	6.6	--
	--	--	17500	--
	--	--	93.1	--
<u>Wild Harbor Drainage Basin (16)</u>				
28WH020	0932	1541	0903	1650
	22.8	24.4	21.7	24.4
	6.8	7.7	6.7	10.2
	14500	14000	14500	16000
	93.2	107.2	90.5	145.4
29WH050	--	--	0927	--
	--	--	23.3	--
	--	--	6.8	--
	--	--	16500	--
	--	--	94.8	--
<u>Herring Brook Drainage Basin (16)</u>				
30HB010	0915	1529	0851	1637
	21.6	25.0	21.1	25.0
	4.6	7.3	6.3	7.8
	10500	16500	14500	14500
	59.3	106.1	83.4	112.1
<u>West Falmouth Harbor Drainage Basin (16)</u>				
31WSH020	0903	1518	0844	1625
	20.6	26.7	18.9	25.0
	5.4	8.5	4.6	9.9
	7000	12500	6500	12000
	65.6	123.1	53.1	136.8
32WFH030	0800	1506	0833	1618
	22.2	25.0	21.7	25.0
	6.0	7.7	5.8	10.6
	15000	16000	17000	16500
	81.1	111.3	80.2	154.1

TABLE 11 (CONTINUED)

DATE:	8/27/85	8/27/85	8/28/85	8/28/85
RUN:	1	2	3	4

STATION

West Falmouth Harbor Drainage Basin (16) Continued

33WFH040	0743	1455	0823	1605
	22.8	23.9	21.7	25.0
	6.3	8.5	6.2	8.8
	18500	17000	17000	17000
	89.9	122.6	85.7	128.7

34WFH050	--	--	0945	--
	--	--	22.8	--
	--	--	6.6	--
	--	--	17000	--
	--	--	95.3	--

35GSC020	0722	1435	0806	1547
	22.2	29.4	20.6	27.8
	4.5	7.0	6.4	8.9
	17000	15500	16500	16500
	62.2	108.3	85.7	137.2

Little Sippewisset Creek Drainage Basin (16)

36LSC020	0845	1403	0741	1454
	22.2	27.8	20.6	27.8
	4.4	8.3	7.2	8.9
	17000	16000	17500	16500
	60.8	127.3	97.5	137.3

Quissett Harbor Drainage Basin (16)

37QH030	--	--	1017	--
	--	--	23.3	--
	--	--	7.4	--
	--	--	17000	--
	--	--	103.7	--

38QH040	--	--	1010	--
	--	--	22.8	--
	--	--	7.1	--
	--	--	18500	--
	--	--	101.3	--

FIGURE 14
 1985 BUZZARDS BAY WATER QUALITY SURVEY
 COMPARISON OF DISSOLVED OXYGEN LEVELS (mg/l)
 IN FRESHWATER AND INTERTIDAL STATIONS
 WITHIN BUZZARDS BAY AREA III
 8/27-28/85

STATION #	STATION TYPE		STATION#	STATION TYPE	
Phinneys Harbor			Wild Harbor		
2BR010	FW		27WH010	FW	
3BR030	Int		28WH020	Int	
7TI020	Int		Herring Brook		
Pocasset River			30HB010	Int	
8PH010	FW		West Falmouth Harbor		
9PH040	Int		31WSH020	Int	
Pocasset Harbor			32WFH030	Int	
10PH010	Int		33WFH040	Int	
13PP050	Int		Great Sippewisset Creek		
Red Brook Harbor			35GSC020	Int	
16RH020	FW		Little Sippewisset Creek		
17RH010	FW		36LSC020	Int	
Megansett Harbor					
19MH110	FW		≤5.0 mg/l		8/27 AM PM 8/28 LEGEND
20MH140	FW		5.1-6.0		
21MH170	Int		6.1-6.5		
22MH180	Int		≥6.6		
23MRH10	FW		N.D. = No Data		
24MRH020	Int				
25MFC030	Int				

TABLE 12

1985 BUZZARDS BAY OUTER BAY STATIONS AREA V

OUTER BAY STATIONS - PROFILES - DEPTH (m), TEMPERATURE (°C),

DISSOLVED OXYGEN (mg/l), SALINITY (‰) DATA

DATE	TIME	STATION NUMBER	DEPTH (m)	TEMPERATURE (°C)	DISSOLVED OXYGEN (mg/l)	SALINITY (‰)
8/13/85	1532	42WA0400	--	--	8.4(w)	--
			2	23.5	8.1	31.5
			4	23.4	7.6	32.2
			6	23.3	7.0	32.3
			6.7	--	--	--
	1351	43SH0500	--	--	7.5(w)	--
			2	24.2	7.5	32.1
			4	23.9	7.6	32.3
			6	23.6	7.5	32.2
			7.4	23.5	6.8	32.5
	1158	44BU0300	--	--	6.9(w)	--
			2	23.2	7.3	32.4
			4	22.9	7.2	32.4
			6	22.5	6.6	32.5
			8	22.5	6.5	32.5
9.3	22.5	6.4	32.5			
8/28/85	1535	45CC01	--	23.5	7.8(w)	--
			1.0	18.0	8.1	31.9
			3.0	18.0	8.1	31.9
			5.0	18.0	8.1	31.9
			5.9	18.0	8.1	31.9
	1400	46WH008	--	--	7.5(w)	--
			1.0	23.6	7.7	30.8
			3.0	23.0	7.5	31.0
			5.0	22.9	7.2	31.2
			7.0	22.8	7.0	31.2
			9.0	22.8	7.0	31.2
			11.0	22.8	6.6	31.3

TABLE 12 (CONTINUED)

DATE	TIME	STATION NUMBER	DEPTH (m)	TEMPERATURE (°C)	DISSOLVED OXYGEN (mg/l)	SALINITY (o/oo)
8/28/85	1215	47CL020	--	--	6.1(W)	--
			1.0	22.7	7.6	31.4
			3.0	22.7	7.5	31.4
			5.0	22.6	7.5	31.5
			7.0	22.6	7.4	31.4
			9.0	22.4	7.3	31.6
			11.0	22.1	6.7	31.9
			13.0	21.8	6.0	32.1
			14.0	21.8	4.6	32.3

(--) No samples taken

8/13/85 high tide 0620 - low tide 1141 at Wings Neck

8/28/85 high tide 0704 - low tide 1317 at Wings Neck

(W) = Winkler method at surface. Dissolved oxygen, temperature and salinity profiles established by use of a Hydrolab Surveyor II Digital display unit and sonde.

FIGURE 15 BUZZARDS BAY OUTER BAY STATIONS AREA V

DISSOLVED OXYGEN AND TEMPERATURE PROFILES

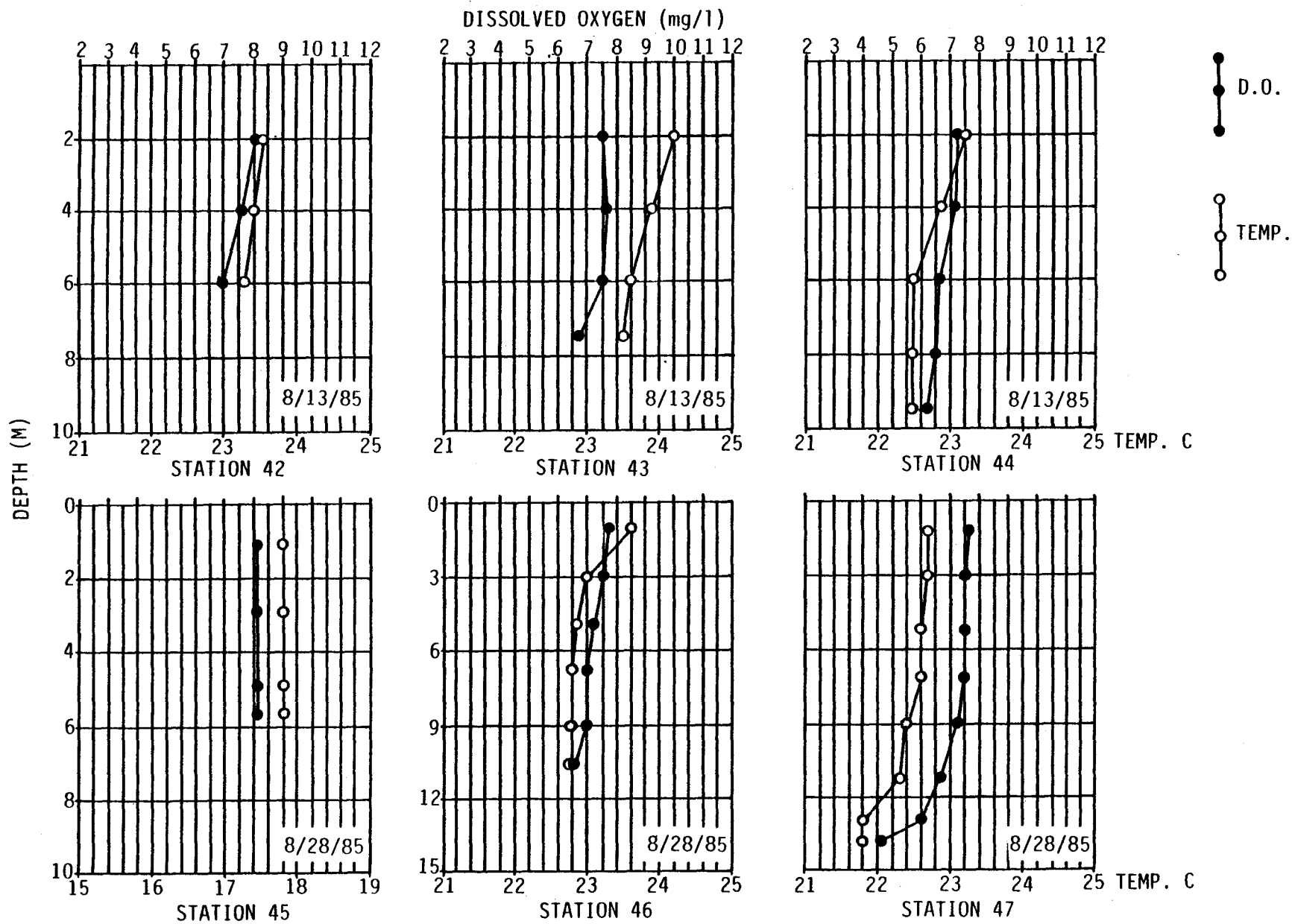


TABLE 13
 1985 BUZZARDS BAY WATER QUALITY SURVEY
 AREA II FRESHWATER STATIONS 8/13-14/85
 SUMMARY OF DISSOLVED OXYGEN DATA (mg/l)

STATION	MAXIMUM	MINIMUM	AVERAGE	NUMBER OF READINGS
2BB020	9.0	4.5	6.7	4
6GB040	5.5	4.9	5.2	4
13AR070	8.1	7.2	7.8	4
14AR080	8.2	7.3	7.7	4
16WR0060	9.7	6.8	8.7	4
17WR0070	8.4	6.7	7.7	4
19WE0110	4.4	3.1	3.7	4
20WE0120	6.9	6.4	6.6	4
28SR0150	6.7	5.6	6.1	4
29SR0160	5.2	3.7	4.5	4
34MR010	7.0	5.9	6.5	4
35MR050	6.3	6.0	6.2	4
36MR080	6.5	4.6	5.4	4
37PI010	6.6	4.8	5.7	4
39MH010	7.4	6.4	6.9	4

TABLE 14
 1985 BUZZARDS BAY WATER QUALITY SURVEY
 AREA II TIDAL STATIONS 8/13-14/85
 SUMMARY OF DISSOLVED OXYGEN DATA (mg/l)

STATION	MAXIMUM	MINIMUM	AVERAGE	NUMBER OF READINGS
1RB010	9.1	8.6	8.9	4
3BB040	9.9	5.0	7.6	4
4BB050	9.0	7.1	8.5	4
5BB060*	--	6.9	--	1
8MC020	9.1	5.9	7.5	4
9ER030	8.3	6.5	7.4	4
10OB0300*	--	6.5	--	1
11OB0200*	--	6.9	--	1
12OB0400*	--	7.4	--	1
15AR090	10.1	5.5	7.5	4
18WA0100	7.7	6.5	7.2	4
21WE0130	9.1	5.5	6.7	4
22WE0140	--	6.3	--	1
23WA0170	8.8	5.6	7.3	4
24WA0180*	--	6.3	--	1
25WA0190*	--	6.3	--	1
26WA0200*	--	5.6	--	1
27WA0210*	--	6.5	--	1
30SH0100*	--	5.8	--	1
31SH0200*	--	5.3	--	1
32SH0300*	--	6.9	--	1
33SH0400*	--	7.4	--	1
38MH0300	6.1	4.2	5.2	4
40MH0700*	--	6.1	6.1	1
41MH0800*	--	6.7	6.7	1

*Single reading

TABLE 15

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III FRESHWATER STATIONS 8/27-28/85

SUMMARY OF DISSOLVED OXYGEN DATA (mg/l)

<u>STATION</u>	<u>MAXIMUM</u>	<u>MINIMUM</u>	<u>AVERAGE</u>	<u>NUMBER OF READINGS</u>
2BR010	7.2	5.9	6.6	4
8PR010	7.6	6.5	7.1	4
16RH020	8.8	7.8	8.2	4
17RH010	9.6	7.1	8.4	4
19MH110	12.4	4.2	8.7	4
20MH140	4.9	3.3	4.1	4
23MRH010	7.6	6.4	7.0	4
27WH010	9.5	6.4	8.0	4

TABLE 16

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III TIDAL STATIONS 8/27-28/85

SUMMARY OF DISSOLVED OXYGEN DATA (mg/l)

STATION	MAXIMUM	MINIMUM	AVERAGE	NUMBER OF READINGS
1CC020*	--	6.1	--	
3BR030	8.8	5.0	7.0	4
4BR050*	--	7.6	--	
5PH030*	--	6.9	--	
6PH060*	--	6.3	--	
7TI020	9.2	6.1	7.8	4
9PR040	7.8	4.6	6.1	4
10PH010	9.1	5.3	7.2	4
11POH030*	--	6.4	--	
12POH080*	--	6.4	--	
13PP050	8.3	6.4	7.5	4
14POH040*	--	6.4	--	
15RBH030*	--	7.2	--	
18HC010*	--	6.3	--	
21MH170	6.6	6.3	--	
22MH180	8.3	6.3	7.4	4
24MRH020	10.3	5.7	7.5	4
25MFC030	10.0	5.1	7.7	4
26MHO190*	--	6.6	--	
28WH020	10.2	6.7	7.9	4
29WH050*	--	6.8	--	
30HB010	7.8	4.6	6.5	4
31WSH020	9.9	4.6	7.1	4
32WFH030	10.6	5.8	7.5	4
33WFH040	8.8	6.2	7.5	4
34WFH050*	--	6.8	--	
35GSC020	8.9	4.5	6.7	4
36LSC020	8.9	4.4	7.2	4
37QH030*	--	7.4	--	
38QH040*	--	7.1	--	

*Single reading

TABLE 17
1985 BUZZARDS BAY WATER QUALITY SURVEY AREA II

BOD₅ DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85
		A.M.	P.M.	A.M.	P.M.	AVERAGE
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	--	--	3.0	--	3.9	3.45
BB030*	--	--	--	--	--	--
1RB010**	1.2	1.5	2.1	1.8	4.2	2.4
3BB040**	1.2	1.5	2.7	2.7	4.5	2.85
4BB050**	--	3.3	3.0	2.4	3.0	2.93
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	5.1	--	5.7	5.4
7UP010*	--	Not sampled - insufficient flow				--
8MC020**	--	1.8	3.0	2.7	4.8	3.08
9ER030**	--	1.8	3.0	2.1	3.9	2.70
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	0.6	--	1.2	--	3.3	2.25
14AR080*	1.2	--	2.4	--	3.0	2.7
15AR090**	0.9	1.2	4.2	4.2	7.2	4.2
<u>Wankinco River Drainage Basin (10)</u>						
16WR0060*	--	--	4.2	--	3.6	3.9
17WR0070*	--	--	2.7	--	3.0	2.85
18WR0100**	1.5	2.1	2.7	3.0	3.3	2.78
<u>Weweantic River Drainage Basin (10)</u>						
19WE0100*	1.5	--	2.7	--	3.6	3.15
20WE0120*	0.9	--	3.0	--	3.3	3.15
21WE0130**	1.8	0.9	11.0	3.6	5.7	5.30
<u>Sippican River Drainage Basin (10)</u>						
28SR0150*	--	--	2.7	--	3.3	3.0
29SR0160*	3.0	--	2.7	--	3.6	3.15
<u>Wareham River Drainage Basin (10)</u>						
23WA0170**	1.8	2.1	4.2	2.7	5.1	3.53
24WA0180**	1.5	--	--	--	--	--
25WA0190**	0.6	--	--	--	--	--

TABLE 17 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Mattapoissett River Drainage Basin (8)</u>						
34MR010*	--	--	3.6	--	6.9	5.25
35MR050*	--	--	2.4	--	3.9	3.15
36MR080*	--	--	2.7	--	4.2	3.45
<u>Mattapoissett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	3.9	--	3.3	3.6
38MH0300**	--	3.0	3.0	2.7	3.6	3.08
39MH010*	--	--	4.2	--	4.8	4.5

* Freshwater Stations - composite samples

** Tidal Stations - grab samples

-- No samples taken

TABLE 18

1985 BUZZARDS BAY WATER QUALITY SURVEY AREA III

BOD₅ DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85
	A.M.	P.M.	A.M.	P.M.	AVERAGE
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	3.9	--	2.4	3.15
3BR030**	2.4	2.7	1.8	3.6	2.63
7T1020**	2.1	2.7	3.3	2.1	2.55
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	2.1	--	2.1	2.1
9PR040**	1.8	2.7	2.4	2.1	2.25
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	2.4	4.2	2.1	3.6	3.08
13PP050**	1.8	2.1	0.9	2.4	1.8
<u>Red Brook Harbor Drainage Basin (15)</u>					
16RH020*	--	1.8	--	2.7	2.25
17RH010*	--	1.5	--	1.5	1.5
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	2.1	--	2.1	2.1
20MH140*	--	3.0	--	3.0	3.0
21MH170**	1.5	3.0	2.1	A	2.2
22MH180**	3.0	2.1	2.1	2.7	2.48
23MRH010*	3.0	3.0	--	3.3	3.1
24MRH020**	3.6	2.1	1.8	--	2.5
25MFC030**	2.7	2.4	1.8	2.4	2.33
26MH0190**	--	--	1.2	--	--
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	3.9	--	3.3	3.6
28WH020**	2.7	3.3	1.8	2.4	2.55
29WH050**	--	--	2.1	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	2.1	1.8	0.9	1.8	1.65

TABLE 18 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	2.5	2.7	3.0	3.3	2.85
32WFH030**	2.7	4.2	2.7	4.8	3.6
33WFH040**	5.7	2.1	1.8	1.5	2.53
34WFH050**	--	--	1.5	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	1.5	3.9	1.5	3.3	2.55
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	2.4	2.1	2.1	3.0	2.4
<u>Quisset Harbor Drainage Basin (16)</u>					
37QH030**	--	--	1.2	--	--
38QH040**	--	--	0.6	--	--

-
- * Freshwater Stations - composite sample
 - ** Tidal Stations - individual grab samples
 - No samples taken
 - A - Sample bottle broken in transit

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 19

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II TOTAL KJELDAHL-NITROGEN DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	1.1	--	0.86	--	0.78	0.82
BB030*	0.78	--	--	--	--	--
1RB010**	1.1	0.81	0.80	0.30	0.31	0.56
3BB040**	1.0	1.2	0.58	0.48	0.58	0.71
4BB050**	0.86	0.77	0.50	0.24	0.39	0.48
5BB060**	1.0	--	--	--	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	1.2	--	0.63	0.92
7UP010*	Not sampled - insufficient flow					
8MC020**	--	1.0	0.80	0.14	0.37	0.58
9ER030**	--	1.3	0.78	0.53	0.70	0.83
10OB0300**	--	--	--	--	--	--
11OB0200**	--	--	--	--	--	--
12OB0400**	--	--	--	--	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	0.61	--	0.89	--	0.47	0.68
14AR080*	1.0	--	0.48	--	0.84	0.66
15AR090**	0.70	1.9	1.6	1.1	0.78	1.35
<u>Wankinco River Drainage Basin (10)</u>						
16WRO060*	--	0.71	--	--	0.30	0.51
17WRO070*	--	1.2	--	--	1.2	1.2
18WRO100**	1.0	1.4	0.85	0.60	0.58	0.86
<u>Weweantic River Drainage Basin (10)</u>						
19WEO110*	0.69	--	0.80	--	0.70	0.75
20WEO120*	1.5	--	0.71	--	0.53	0.62
21WEO130**	0.79	1.3	1.2	0.48	0.54	0.88
22WEO140**	0.88	--	--	--	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SRO150*	--	--	0.78	--	0.76	0.77
29SRO160*	0.80	--	0.94	--	0.59	0.77

TABLE 19 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WAO170**	0.95	1.4	1.1	0.18	0.51	0.80
24WAO180**	1.4	--	--	--	--	--
25WAO190**	0.87	--	--	--	--	--
26WAO200**	0.80	--	--	--	--	--
27WAO210**	0.78	--	--	--	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SHO100**	--	0.57	--	--	--	--
31SHO200**	--	0.78	--	--	--	--
32SHO300**	--	0.70	--	--	--	--
33SHO400**	--	0.39	--	--	--	--
<u>Mattapoissett River Drainage Basin (8)</u>						
34MR010*	--	--	0.88	--	0.51	0.70
35MR050*	--	--	1.3	--	0.65	0.98
36MR080*	--	--	2.4	--	0.76	1.58
<u>Mattapoissett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	1.5	--	1.5	1.5
38MH0300**	--	1.2	1.1	0.35	0.76	0.85
39MH010*	--	--	0.88	--	1.1	0.85
40MH0700**	--	0.39	--	--	--	--
41MH0800**	--	0.64	--	--	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 20

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III TOTAL KJELDAHL-NITROGEN DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Cape Cod Canal (13)</u>					
1CC020**	0.98	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	4.1	--	2.0	3.05
3BR030**	1.7	1.3	1.8	1.9	1.68
4BR050**	1.2	--	--	--	--
5PH030**	1.1	--	--	--	--
6PH060**	1.1	--	--	--	--
7TI020**	1.3	1.3	1.8	1.7	1.53
<u>Pocasset River Drainage Basin (14)</u>					
8PRO10*	--	1.6	--	1.8	1.7
9PRO40**	1.3	1.4	1.8	1.5	1.5
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	1.5	1.8	2.0	1.6	1.73
11POH030**	1.1	--	--	--	--
12POH080**	1.9	--	--	--	--
13PP050**	1.2	1.7	1.9	1.6	1.6
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	0.99	--	--	--	--
15RBH030**	1.1	--	--	--	--
16RH020*	--	1.6	--	1.4	1.5
17RH010*	--	1.5	--	1.4	1.45
18HC010**	1.0	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	1.8	--	1.5	1.65
20MH140*	--	1.8	--	1.7	1.75
21MH170**	1.7	1.7	2.0	1.5	1.73
22MH180**	1.0	1.4	1.7	1.3	1.35
23MRH010*	--	2.0	--	2.0	2.0
24MRH020**	1.4	1.5	1.8	--	1.57
25MFC030**	1.2	1.6	1.7	1.6	1.53
26MHO190**	--	--	1.6	--	--

TABLE 20 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	1.9	--	1.7	1.8
28WH020**	1.4	2.6	1.7	1.2	1.73
29WH050**	--	--	1.6	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	1.2	1.8	1.8	1.2	1.5
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	1.2	1.8	1.8	1.6	1.6
32WFH030**	1.2	1.9	1.8	1.5	1.6
33WFH040**	1.1	1.8	1.8	1.9	1.65
34WFH050**	--	--	1.8	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	1.3	2.7	2.5	1.6	2.03
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	1.3	1.8	1.7	1.5	1.58
<u>Quissett Harbor Drainage Basin (14)</u>					
37QH030**	--	--	1.8	--	--
38QH040**	--	--	1.6	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 21

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II AMMONIA-NITROGEN DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	0.26	--	0.07	--	0.13	0.10
BB030*	0.04	--	--	--	--	--
1RB010**	0.12	0.09	0.12	0.03	0.03	0.068
3BB040*	0.00	0.10	0.03	0.07	0.15	0.088
4BB050**	0.01	0.03	0.08	0.09	0.09	0.073
5BB060	0.01	--	--	0.04	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	0.12	--	0.11	0.115
7UP010*		Not sampled - insufficient flow				
8MC020**	--	0.05	0.12	0.03	0.06	0.065
9ER030**	--	0.02	0.04	0.07	0.15	0.07
10OB0300**	--	--	--	0.03	--	--
11OB0200**	--	--	--	0.04	--	--
12OB0400**	--	--	--	0.05	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	0.06	--	0.17	--	0.02	0.095
14AR080*	0.04	--	0.05	--	0.03	0.04
15AR090**	0.06	0.30	0.30	0.31	0.14	0.26
<u>Wankinco River Drainage Basin (10)</u>						
16WRO060*	--	--	0.67	--	0.01	0.34
17WRO070*	--	--	0.95	--	0.79	0.87
18WRO100**	0.04	0.06	0.09	0.09	0.06	0.075
<u>Weweantic River Drainage Basin (10)</u>						
19WEO110*	0.06	--	0.04	--	0.03	0.035
20WEO120*	0.05	--	0.05	--	0.41	0.23
21WEO130**	0.09	0.05	0.07	0.05	0.04	0.05
22WEO140**	0.05	--	--	0.01	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SRO150*	--	--	0.03	--	0.05	0.04
29SRO160*	0.06	--	0.04	--	0.08	0.06

TABLE 21 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WAO170**	0.03	0.08	0.12	0.07	0.04	0.078
24WAO180**	0.19	--	--	0.02	--	--
25WAO190**	0.03	--	--	0.03	--	--
26WAO200**	0.03	--	--	0.13	--	--
27WAO210**	0.07	--	--	0.02	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SHO100**	--	0.02	--	--	--	--
31SHO200**	--	0.03	--	--	--	--
32SHO300**	--	0.01	--	--	--	--
33SHO400**	--	0.31	--	--	--	--
<u>Mattapoisett River Drainage Basin (8)</u>						
34MR010*	--	--	0.11	--	0.03	0.07
35MR050*	--	--	0.11	--	0.05	0.08
36MR080*	--	--	0.32	--	0.03	0.175
<u>Mattapoisett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	0.14	--	0.08	0.11
38MH030**	--	0.07	0.25	0.06	0.20	0.145
39MH010*	--	--	0.13	--	0.12	0.125
40MH070**	--	0.02	--	--	--	--
41MH0800**	--	0.05	--	--	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- Samples not taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 22

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III AMMONIA-NITROGEN DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Cape Cod Canal (13)</u>					
1CC020**	0.10	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	0.21	--	0.44	0.325
3BR030**	0.15	0.05	0.09	0.05	0.085
4BR050**	0.05	--	--	--	--
5PH030**	0.11	--	--	--	--
6PH060**	0.03	--	--	--	--
7TI020**	0.07	0.09	0.13	0.07	0.09
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	0.10	--	0.05	0.075
9PR040**	0.14	0.09	0.11	0.08	0.105
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	0.07	0.46	0.10	0.07	0.175
11POH030**	0.09	--	--	--	--
12POH080**	0.27	--	--	--	--
13PP050**	0.04	0.18	0.17	0.02	0.10
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	0.09	--	--	--	--
15RBH030**	0.14	--	--	--	--
16RH020*	--	0.12	--	0.03	0.075
17RH010*	--	0.09	--	0.07	0.08
18HC010**	0.06	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	0.08	--	0.06	0.07
20MH140*	--	0.06	--	0.13	0.095
21MH170**	0.07	0.03	0.05	0.05	0.05
22MH180**	0.05	0.22	0.03	0.09	0.098
23MRH010*	--	0.05	--	0.18	0.115
24MRH020**	0.04	0.09	0.09	--	0.073
25MFC030**	0.09	0.07	0.12	0.10	0.095
26MHO190**	--	--	0.05	--	--

TABLE 22 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85
	A.M.	P.M.	A.M.	P.M.	AVERAGE
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	0.05	--	0.10	0.075
28WH020**	0.03	0.28	0.09	0.03	0.108
29WH050**	--	--	0.12	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	0.09	0.07	0.15	0.08	0.098
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	0.11	0.09	0.10	0.03	0.08
32WFH030**	0.05	0.05	0.05	0.07	0.055
33WFH040**	0.03	0.05	0.27	0.28	0.158
34WFH050**	--	--	0.11	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	0.19	0.20	0.09	0.24	0.18
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	0.07	0.09	0.03	0.06	0.06
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	0.10	--	--
38QH040**	--	--	0.06	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 23

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II NITRATE-NITROGEN DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	0.1	--	0.1	--	0.8	0.45
BB030*	0.0	--	--	--	--	--
1RB010**	0.0	0.3	0.3	I	0.3	0.3
3BB040**	0.0	I	I	I	I	--
4BB040**	0.0	I	I	I	I	--
5BB060**	0.0	--	--	I	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	0.02	--	0.9	0.55
7UP010*		Not sampled - insufficient flow				
8MC020**	--	I	I	I	I	--
9ER030**	--	I	I	I	I	--
10OB0300**	--	--	--	I	--	--
11OB0200**	--	--	--	I	--	--
12OB0400**	--	--	--	I	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	0.0	--	0.1	--	0.1	0.1
14AR080*	0.1	--	0.3	--	0.3	0.3
15AR090**	0.0	--	0.5	I	I	--
<u>Wankinco River Drainage Basin (10)</u>						
16WRO060*	--	--	0.2	--	0.5	0.35
17WRO070*	--	--	0.1	--	0.0	0.05
18WRO100**	0.0	I	0.6	I	0.2	0.4
<u>Weweantic River Drainage Basin (10)</u>						
19WEO110*	0.0	--	0.3	--	0.1	0.2
20WEO120*	0.1	--	0.1	--	0.5	0.3
21WEO130**	0.0	I	I	I	I	--
22WEO140**	0.0	--	--	I	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SRO150*	--	0.2	--	0.3	--	0.25
29SRO160*	0.0	--	0.2	--	0.2	0.2

TABLE 23 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WAO170**	0.0	I	I	I	I	--
24WAO180**	0.0	--	--	I	--	--
25WAO190**	0.0	--	--	I	--	--
26WAO200**	0.0	--	--	I	--	--
27WAO210**	0.0	--	--	I	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SHO100**	--	I	--	--	--	--
31SHO200**	--	I	--	--	--	--
32SHO300**	--	I	--	--	--	--
33SHO400**	--	I	--	--	--	--
<u>Mattapoisett River Drainage Basin (8)</u>						
34MR010*	--	--	0.5	--	0.5	0.5
35MR050*	--	--	0.5	--	0.5	0.5
36MR080*	--	--	7.0	--	0.3	3.65
<u>Mattapoisett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	0.4	--	0.2	0.3
38MH030**	--	I	I	I	I	--
39MH010*	--	--	0.4	--	0.3	0.35
40MH070**	--	I	--	--	--	--
41MH080**	--	I	--	--	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 I Interference
 -- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 24

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III NITRATE-NITROGEN DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85
	A.M.	P.M.	A.M.	P.M.	AVERAGE
<u>Cape Cod Canal (13)</u>					
1CC020	I	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	0.6	--	0.4	0.5
3BR030**	I	I	I	I	--
4BR050**	I	--	--	--	--
5PH030**	I	--	--	--	--
6PH060**	I	--	--	--	--
7TI020**	I	I	I	I	--
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	0.2	--	0.2	0.2
9PR040**	I	I	I	I	--
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	I	I	I	I	--
11POH030**	I	--	--	--	--
12POH080**	I	-	-	-	-
13PP050**	I	I	I	I	--
<u>Red Brook Harbor Drainage Basin (15)</u>					
14POH040**	I	--	--	--	--
15RBH030**	I	--	--	--	--
16RH020*	--	0.5	--	0.1	0.3
17RH010*	--	0.5	--	0.3	0.4
18HC010**	I	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	0.2	--	0.2	0.2
20MH140*	--	0.1	--	0.3	0.2
21MH170**	I	0.1	I	0.2	0.15
22MH180**	I	I	I	I	--
23MRH010*	--	0.1	--	0.2	0.15
24MRH020**	I	I	I	--	--
25MFC030**	I	I	I	I	--
26MH0190**	--	--	I	--	--

TABLE 24 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	

Wild Harbor Drainage Basin (16)

27WH010*	--	I	--	I	--
28WH020**	I	I	I	I	--
29WH050**	--	--	I	--	--

Herring Brook Drainage Basin (16)

30HB010**	I	I	I	I	--
-----------	---	---	---	---	----

West Falmouth Harbor Drainage Basin (16)

31WSH020**	I	I	I	I	--
32WFH030**	I	I	I	I	--
33WFH040**	I	I	I	I	--
34WFH050**	--	--	I	--	--

Great Sippewisset Creek Drainage Basin (16)

35GS0020**	I	I	I	I	--
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Little Sippewisset Creek Drainage Basin (16)

36LSC020**	I	I	I	I	--
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Quissett Harbor Drainage Basin (16)

37QH030**	--	--	I	--	--
38QH040**	--	--	I	--	--

* Freshwater Station - composite samples
 ** Tidal Station - individual grab samples
 I Interference
 -- No samples taken

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 25

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II TOTAL PHOSPHORUS DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	0.12	--	0.08	--	0.14	0.11
BB030*	0.04	--	--	--	--	--
1RB010**	0.10	0.08	0.11	0.15	0.13	0.12
3BB040**	0.11	0.19	0.11	0.11	0.21	0.16
4BB050**	0.09	0.12	0.09	0.15	0.15	0.13
5BB060**	0.06	--	--	0.12	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	0.08	--	0.13	0.105
7UP010*		Not sampled - insufficient flow				
8MC020**	--	0.15	0.10	0.26	0.18	0.17
9ER030**	--	0.12	0.11	0.14	0.20	0.14
10OB0300**	--	--	--	0.11	--	--
11OB0200**	--	--	--	0.19	--	--
12OB0400**	--	--	--	0.12	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	0.05	--	0.14	--	0.14	0.14
14AR080*	0.04	--	0.24	--	0.04	0.14
15AR090**	0.09	0.14	0.18	0.19	0.14	0.16
<u>Wankinco River Drainage Basin (10)</u>						
16WR0060*	--	0.14	--	--	0.09	0.115
17WR0070*	--	0.14	--	--	0.05	0.095
18WR0100**	0.02	0.07	0.14	0.05	0.06	0.08
<u>Weweantic River Drainage Basin (10)</u>						
19WE0110*	0.13	--	0.20	--	0.12	0.16
20WE0120*	0.12	--	0.20	--	0.13	0.165
21WE0130**	0.08	0.11	0.40	0.28	0.25	0.26
22WE0140**	0.08	--	--	0.13	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SR0150*	--	--	0.15	--	0.15	0.15
29SR0160*	0.05	--	0.18	--	0.21	0.195

TABLE 25 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WA0170**	0.06	0.11	0.20	0.25	0.20	0.19
24WA0180**	0.07	--	--	0.14	--	--
25WA0190**	0.13	--	--	0.14	--	--
26WA0200**	0.12	--	--	0.13	--	--
27WA0210**	0.07	--	--	0.12	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SH0100**	--	0.16	--	--	--	--
31SH0200**	--	0.14	--	--	--	--
32SH0300**	--	0.12	--	--	--	--
33SH0400**	--	0.12	--	--	--	--
<u>Mattapoissett River Drainage Basin (8)</u>						
34MR010*	--	--	0.14	--	0.15	0.145
35MR050*	--	--	0.18	--	0.18	0.18
36MR080*	--	--	0.56	--	0.21	0.385
<u>Mattapoissett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	0.28	--	0.25	0.265
38MH030**	--	0.14	0.23	0.18	0.26	0.20
39MH010*	--	--	0.10	--	0.15	0.125
40MH0700**	--	0.12	--	--	--	--
41MH0800**	--	0.12	--	--	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 26

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III TOTAL PHOSPHORUS DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Cape Cod Canal (13)</u>					
1CC020**	0.11	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010	--	0.24	--	0.07	0.155
3BR030**	0.13	0.10	0.14	0.09	0.115
4BR050**	0.11	--	--	--	--
5PH030**	0.12	--	--	--	--
6PH060**	0.12	--	--	--	--
7TI020**	0.09	0.11	0.09	0.08	0.09
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	0.08	--	0.05	0.065
9PR040**	0.13	0.10	0.09	0.08	0.10
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	0.13	0.16	0.10	0.10	0.12
11POH030**	0.11	--	--	--	--
12POH080**	0.12	--	--	--	--
13PP050**	0.12	0.14	0.09	0.09	0.11
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	0.11	--	--	--	--
15RBH030**	0.12	--	--	--	--
16RH020*	--	0.10	--	0.07	0.085
17RH010*	--	0.11	--	0.06	0.085
18HC010**	0.11	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	0.15	--	0.09	0.12
20MH140*	--	0.10	--	0.18	0.14
21MH170**	0.13	0.11	0.12	0.15	0.128
22MH180**	0.13	0.12	0.09	0.14	0.12
23MRH010*	--	0.09	--	0.11	0.10
24MRH020**	0.13	0.12	0.09	--	0.11
25MFC030**	0.12	0.12	0.08	0.14	0.115
26MH0190**	--	--	0.06	--	--

TABLE 26 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	0.15	--	0.15	0.15
28WH020**	0.11	0.19	0.08	0.15	0.13
29WH050**	--	--	0.07	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	0.12	0.12	0.08	0.17	0.12
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	0.11	0.12	0.10	0.09	0.105
32WFH030**	0.11	0.17	0.09	0.08	0.11
33WFH040**	0.16	0.12	0.08	0.09	0.11
34WFH050**	--	--	0.08	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	0.13	0.18	0.10	0.09	0.125
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	0.15	0.14	0.08	0.09	0.115
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	0.07	--	--
38QH040**	--	--	0.08	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No sample taken

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 27

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II ORTHOPHOSPHATE DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	0.08	--	0.06	--	0.07	0.065
BB030*	0.02	--	--	--	--	--
1RB010**	0.04	0.05	0.05	0.04	0.04	0.045
3BB040**	0.08	0.07	0.07	0.07	0.11	0.08
4BB050**	0.03	0.04	0.04	0.04	0.03	0.038
5BB060**	0.02	0.03	--	--	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	0.03	--	0.03	0.03
7UP010*		Not sampled - insufficient flow				
8MC020**	--	0.05	0.05	0.05	0.06	0.05
9ER030**	--	0.05	0.04	0.05	0.06	0.05
10OB0300**	--	0.04	--	--	--	--
11OB0200**	--	0.03	--	--	--	--
12OB0400**	--	0.03	--	--	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	0.01	--	0.01	--	0.01	0.01
14AR080*	0.01	--	0.01	--	0.01	0.01
15AR090**	0.08	0.09	0.11	0.09	0.08	0.09
<u>Wankinco River Drainage Basin (10)</u>						
16WRO060*	--	--	0.02	--	0.02	0.02
17WRO070*	--	--	0.01	--	0.01	0.01
18WRO100**	0.02	0.02	0.02	0.03	0.02	0.02
<u>Weweantic River Drainage Basin (10)</u>						
19WEO110*	0.05	--	0.04	--	0.08	0.06
20WEO120**	0.05	--	0.07	--	0.05	0.06
21WEO130**	0.06	0.05	0.07	0.05	0.05	0.055
22WEO140**	0.01	0.04	--	--	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SRO150*	--	--	0.04	--	0.04	0.04
29SRO160*	0.05	--	0.05	--	0.04	0.045

TABLE 27 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WA0170**	0.05	0.07	0.08	0.06	0.07	0.07
24WA0180**	0.03	0.05	--	--	--	--
25WA0190**	0.03	0.06	--	--	--	--
26WA0200**	0.03	0.05	--	--	--	--
27WA0210**	0.01	0.04	--	--	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SHO100**	--	--	--	0.06	--	--
31SHO200**	--	--	--	0.04	--	--
32SHO300**	--	--	--	0.03	--	--
33SHO400**	--	--	--	0.03	--	--
<u>Mattapoissett River Drainage Basin (8)</u>						
34MR010*	--	--	0.03	--	0.03	0.035
35MR050*	--	--	0.04	--	0.04	0.04
36MR080*	--	--	0.17	--	0.05	0.11
<u>Mattapoissett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	0.07	--	0.08	0.075
38MH030**	--	0.06	0.11	0.06	0.08	0.078
39MH010*	--	--	0.07	--	0.08	0.075
40MH0700**	--	--	--	0.04	--	--
41MH0800**	--	--	--	0.03	--	--

* Freshwater Station - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 28

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III ORTHOPHOSPHATE DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Cape Cod Canal (13)</u>					
1CC020**	0.02	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	0.10	--	0.05	0.075
3BR030**	0.06	0.03	0.04	0.03	0.04
4BR050**	0.06	--	--	--	--
5PH030**	0.03	--	--	--	--
6PH060**	0.03	--	--	--	--
7TI020**	0.02	0.03	0.03	0.03	0.028
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	0.02	--	0.02	0.02
9PR040**	0.07	0.05	0.06	0.05	0.058
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	0.07	0.11	0.04	0.05	0.068
11POH030**	0.03	--	--	--	--
12POH080**	0.07	--	--	--	--
13PP050**	0.03	N.D.	0.03	0.05	
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	0.04	--	--	--	--
15RBH030**	0.03	--	--	--	--
16RH020*	--	0.05	--	0.03	0.04
17RH010*	--	0.07	--	0.03	0.05
18HC010**	0.03	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	0.11	--	0.05	0.08
20MH140*	--	0.05	--	0.08	0.065
21MH170**	0.05	0.05	0.06	0.07	0.058
22MH180**	0.04	0.03	0.03	0.03	0.03
23MRH010*	--	0.02	--	0.02	0.02
24MRH020**	0.03	0.03	0.05	--	0.037
25MFC030**	0.05	0.03	0.03	0.02	0.03
26MHO190**	--	--	0.02	--	--

TABLE 28 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	0.08	--	0.07	0.075
28WH020**	0.05	0.09	0.05	0.04	0.058
29WH050**	--	--	0.04	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	0.06	0.04	0.05	0.05	0.05
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	0.07	0.04	0.07	0.05	0.058
32WFH030**	0.04	0.04	0.04	0.04	0.04
33WFH040**	0.04	0.03	0.03	0.04	0.035
34WFH050**	--	--	0.02	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	0.04	0.08	0.04	0.05	0.05
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	0.04	0.04	0.04	0.03	0.038
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	0.02	--	--
38QH040**	--	--	0.02	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken
 N.D. No data

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 29

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA V OUTER BAY STATIONS NUTRIENT DATA

TOTAL KJELDAHL-NITROGEN (mg/l) - AMMONIA-NITROGEN NH₃-N -TOTAL PHOSPHORUS TP - ORTHOPHOSPHATE PO₄-P - SALINITY (o/oo)

STATION	TOP(T)	DATE	TIME	TKN-N	NH ₃ -N	TP	ORTHO	SALINITY
	BOTTOM (B)							
42WAO400	T	8/13/85	1532	2.2	0.42	0.26	0.10	31.5
	B	8/13/85	1538	0.73	0.07	0.21	0.06	32.3
43SHO500	T	8/13/85	1351	0.60	0.03	0.18	0.03	32.1
	B	8/13/85	1400	0.58	0.05	0.19	0.05	32.5
44BUO300	T	8/13/85	1158	0.39	0.03	0.21	0.03	32.4
	B	8/13/85	1216	0.23	0.01	0.20	0.02	32.5
45CC01	T	8/28/85	1535	1.0	0.11	0.06	0.02	31.9
	B	8/28/85	1405	2.0	0.07	0.07	0.05	31.3
46WHO08	T	8/28/85	1400	1.2	0.03	0.08	0.03	30.8
	B	8/28/85	1405	2.0	0.52	0.11	0.05	31.3
47CL020	T	8/28/85	1215	1.2	0.05	0.06	0.01	31.4
	B	8/28/85	1230	1.3	0.01	0.08	0.03	32.3

8/13/85 high tide 0620 - low tide 1141, Wings Neck

8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 30

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II FRESHWATER STATIONS 8/13-14/85

SUMMARY OF WATER TEMPERATURE DATA (°C) MAX.-MIN.-AVG.

<u>STATION</u>	<u>MAXIMUM</u>	<u>MINIMUM</u>	<u>AVERAGE</u>	<u>NUMBER OF READINGS</u>
2BB020	27.2	22.2	24.2	4
6GB040	26.1	18.3	23.2	4
13AR070	27.2	23.3	25.3	4
14AR080	26.1	23.3	24.4	4
16WRO060	23.3	17.2	20.4	4
17WRO070	22.0	15.0	18.5	4
19WEO110	25.6	21.1	23.1	4
20WEO120	25.6	21.1	23.2	4
28SRO150	25.6	22.2	23.9	4
29SRO160	23.3	20.0	22.0	4
34MR010	25.0	17.8	21.7	4
35MR050	22.8	18.9	20.9	4
36MR080	25.6	20.5	23.3	4
37PI010	26.7	16.1	21.4	4
39MH010	22.8	16.1	19.7	4

TABLE 31

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II TIDAL STATIONS 8/13-14/85

SUMMARY OF WATER TEMPERATURE (°C) DATA MAX.-MIN.-AVG.

STATION	MAXIMUM	MINIMUM	AVERAGE	NUMBER OF READINGS
1RB010	20.0	13.3	18.1	4
3BB040	26.7	21.7	24.6	4
4BB050	20.0	22.2	21.1	4
5BB060*	--	22.8	--	1
8MC020	25.6	20.6	23.8	4
9ER030	26.1	20.0	23.2	4
10OB0300*	--	23.9	--	1
11OB0200*	--	22.8	--	1
12OB0400*	--	22.8	--	1
15AR090	27.8	21.1	24.9	4
18WRO100	25.0	21.7	23.9	4
21WEO130	27.2	20.0	24.5	4
22WEO140*	--	24.4	--	1
23WAO170	27.8	21.7	25.2	4
24WAO180*	--	25.6	--	1
25WAO190*	--	25.6	--	1
26WAO200*	--	24.4	--	1
27WAO210*	--	24.4	--	1
30SH0100*	--	23.9	--	1
31SH0200*	--	23.9	--	1
32SH0300*	--	23.9	--	1
33SH0400*	--	22.8	--	1
38MHO300	31.0	20.0	25.4	4
40MHO700*	--	22.2	--	1
41MHO800*	--	22.2	--	1

* Single reading

TABLE 32

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III FRESHWATER STATIONS 8/27-28/85

SUMMARY OF WATER TEMPERATURE (°C) DATA MAX.-MIN.-AVG.

<u>STATION</u>	<u>MAXIMUM</u>	<u>MINIMUM</u>	<u>AVERAGE</u>	<u>NUMBER OF READINGS</u>
2BR010	21.6	17.8	19.9	4
8PR010	22.2	16.7	19.9	4
16RH020	23.9	20.6	22.0	4
17RH010	15.0	11.7	13.5	4
19MH110	22.2	13.9	18.2	4
20MH140	23.3	21.1	22.3	4
23MRH010	26.1	22.8	24.3	4
27WH010	27.2	22.2	24.4	4

TABLE 33

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III FRESHWATER STATIONS 8/27-28/85

SUMMARY OF WATER TEMPERATURE (°C) DATA MAX.-MIN.-AVG.

STATION	MAXIMUM	MINIMUM	AVERAGE	NUMBER OF READINGS
1CC020*	--	21.6	--	1
3BR030	23.2	21.1	22.3	4
4BR050*	--	22.8	--	1
5PH030*	--	22.8	--	1
6PH060*	--	22.8	--1	1
7TI020	23.3	21.1	22.6	4
9PR040	22.8	20.6	21.6	4
10PH010	24.4	21.1	22.8	4
11POH030*	--	23.3	--	1
12POH080*	--	23.3	--	1
13PP050	23.3	21.1	22.4	4
14POH040*	--	23.3	--	1
15RBH030*	--	23.3	--	1
18HC010*	--	N.D.	--	1
21MH170	22.8	19.4	21.1	4
22MH180	25.0	22.8	23.8	4
24MRH020(A)	25.0	22.8	23.7	3
25MFC030	25.0	22.8	23.8	4
26MHO190	--	22.8	--	1
28WH020	24.4	21.7	23.3	4
29WH050	--	23.3	--	1
30HB010	25.0	21.1	23.2	4
31WSH020	26.7	18.9	22.8	4
32WFH030	25.0	21.7	23.5	4
33WFH040	25.0	21.7	23.5	4
34WFH050*	--	22.8	--	1
35GSC020	29.4	20.6	25.0	4
36GSC020	29.4	20.6	24.6	4
37QH030*	--	23.3	--	1
38QH040*	--	22.8	--	1

* Single reading

A Based on 3 readings

N.D. No Data

8/27/85 high tide 0612 - low tide 1224, Wings Neck

8/28/85 high tide 0704 - low tide 1317, Wings Nec,

TABLE 34

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II in situ pH DATA (Standard log units)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Buttermilk Bay Drainage Basin (11)</u>					
2BB020*	--	5.8	5.4	E.F.	E.F.
BB030*	--	--	--	--	--
1RB010**	6.0	6.2	6.5	7.4	6.5
3BB040**	7.8	7.9	8.3	8.1	8.4
4BB050**	--	8.0	8.1	8.0	8.1
5BB060**	--	--	--	--	--
<u>Onset Bay Drainage Basin (12)</u>					
6GB040*	--	4.6	5.9	E.F.	7.9
7UP010*	Not sampled - insufficient flow				
8MC020**	--	7.8	8.1	7.9	8.1
9ER030**	--	7.8	8.0	8.0	8.2
10OB0300**	--	--	--	7.6	--
11OB0200**	--	--	--	7.7	--
12OB0400**	--	--	--	7.8	--
<u>Agawam River Drainage Basin (10)</u>					
13AR070*	6.3	E.F.	6.1	E.F.	6.4
14AR080*	6.0	E.F.	6.2	E.F.	6.4
15AR090**	6.2	6.5	7.2	6.8	8.1
<u>Wankinco River Drainage Basin (10)</u>					
16WRO060*	--	--	6.4	--	--
17WRO070*	--	--	--	--	--
18WRO100**	6.8	6.5	6.8	--	6.6
<u>Weweantic River Drainage Basin (10)</u>					
19WEO110*	5.9	E.F.	5.4	E.F.	5.3
20WEO120*	6.0	E.F.	5.8	E.F.	6.0
21WEO130**	6.8	7.2	8.1	7.6	7.7
22WEO140**	--	--	--	--	--
<u>Sippican River Drainage Basin (10)</u>					
28SRO150*	--	6.1	5.6	E.F.	5.9
29SRO160*	5.6	6.3	5.1	E.F.	5.0

TABLE 34 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Wareham River Drainage Basin (10)</u>					
23WAO170**	7.2	7.7	8.0	7.8	8.1
24WAO180**	7.4	--	--	7.7	--
25WAO190**	7.5	--	--	7.7	--
26WAO200**	7.5	--	--	7.7	--
27WAO210**	--	--	--	7.8	--
<u>Sippican Harbor Drainage Basin (9)</u>					
30SHO100**	--	7.4	--	--	--
31SHO200**	--	7.9	--	--	--
32SHO300**	--	8.0	--	--	--
33SHO400**	--	8.1	--	--	--
<u>Mattapoissett River Drainage Basin (8)</u>					
34MR010*	--	6.1	5.9	E.F.	6.1
35MR050*	--	5.6	5.7	E.F.	5.9
36MR080*	--	5.3	5.5	E.F.	5.7
<u>Mattapoissett Harbor Drainage Basin (8)</u>					
37PI020*	--	4.0	4.2	E.F.	4.4
38MH030**	--	7.7	7.7	7.7	7.6
39MH010*	--	--	6.6	E.F.	6.8
40MHO700**	--	--	7.9	--	--
41MHO800**	--	--	8.0	--	--

* Freshwater Station
 ** Tidal Station
 -- No samples taken
 E.F. Equipment failure

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 35

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II pH DATA (Standard log units) (1)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Buttermilk Bay Drainage Basin (11)</u>					
2BB020*	--	--	5.8	--	6.0
BB030*	--	--	--	--	--
1RB010**	6.0	6.7	6.9	7.7	6.8
3BB040**	7.8	7.9	7.9	8.1	8.5
4BB050**	--	8.1	7.8	8.0	8.2
5BB060**	--	--	--	7.6	--
<u>Onset Bay Drainage Basin (12)</u>					
6GB040*	--	--	7.6	--	7.9
7UP010*	Not sampled - insufficient flow				
8MC020**	--	7.9	7.8	7.9	8.2
9ER030**	--	8.0	7.8	7.9	8.2
10OB0300**	--	--	--	7.6	--
11OB0200**	--	--	--	7.7	--
12OB0400**	--	--	--	7.8	--
<u>Agawam River Drainage Basin (10)</u>					
13AR070*	6.3	--	7.6	--	8.0
14AR080*	6.0	--	6.2	--	7.4
15AR090**	6.2	7.0	7.7	7.3	7.3
<u>Wankinco River Drainage Basin (10)</u>					
16WRO060*	--	--	6.9	--	7.1
17WRO070*	--	--	6.5	--	7.0
18WRO100**	6.8	6.8	6.9	7.2	6.4
<u>Weweantic River Drainage Basin (10)</u>					
19WEO110*	5.9	--	6.5	--	6.1
20WEO120*	6.0	--	6.5	--	6.4
21WEO130**	6.8	7.3	7.9	7.6	6.5
22WEO140**	--	--	--	7.7	--
<u>Sippican River Drainage Basin (10)</u>					
28SRO150*	--	--	6.9	--	8.1
29SRO160*	5.6	--	5.6	--	7.4

TABLE 35 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Wareham River Drainage Basin (10)</u>					
23WAO170**	7.2	7.7	8.0	7.5	7.6
24WAO180**	7.4	--	--	7.7	--
25WAO190**	7.5	--	--	7.7	--
26WAO200**	7.5	--	--	7.7	--
27WAO210**	--	--	--	7.8	--
<u>Sippican Harbor Drainage Basin (9)</u>					
30SHO100**	--	7.4	--	--	--
31SHO200**	--	7.9	--	--	--
32SHO300**	--	8.0	--	--	--
33SHO400**	--	8.1	--	--	--
<u>Mattapoisett River Drainage Basin (8)</u>					
34MR010*	--	--	6.0	--	7.0
35MR050*	--	--	6.2	--	6.2
36MR080*	--	--	6.0	--	6.2
<u>Mattapoisett Harbor Drainage Basin (8)</u>					
37PI010*	--	--	4.5	--	4.8
38MH030**	--	7.7	7.5	7.7	6.7
39MH010*	--	--	7.0	--	6.7
40MHO700**	--	7.9	--	--	--
41MHO800**	--	8.0	--	--	--

* Freshwater Station - composite samples

** Tidal Station - individual grab samples

(1) Measurements conducted at Lawrence Experiment Station

-- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck

8/13/85 high tide 0620 - low tide 1141, Wings Neck

8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 36

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III in situ pH DATA (Standard log units)

STATION	8/27/85		8/28/85	
	A.M.	P.M.	A.M.	P.M.
<u>Cape Cod Canal (13)</u>				
1CC020**	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>				
2BR010*	5.6	6.0	5.8	6.3
3BR030**	7.2	7.9	7.6	8.0
4BR050**	--	--	--	--
5PH030**	--	--	--	--
6PH060**	--	--	--	--
7TI020**	7.8	8.0	7.8	8.0
<u>Pocasset River Drainage Basin (14)</u>				
8PR010*	5.9	6.0	5.4	6.2
9PR040**	7.0	7.8	7.4	7.6
<u>Pocasset Harbor Drainage Basin (15)</u>				
10PH020**	7.5	7.9	7.6	8.1
11POH030**	--	--	--	--
12POH080**	--	--	--	--
13PP050**	7.7	8.0	7.9	7.9
<u>Red Brook Harbor Basin (15)</u>				
14POH040**	--	--	--	--
15RBH030**	--	--	--	--
16RH020*	6.4	6.4	5.8	6.4
17RH010*	5.4	5.9	5.2	5.8
<u>Megansett Harbor Drainage Basin (15)</u>				
19MH110*	5.5	6.3	5.2	6.4
20MH140*	5.7	5.5	4.9	5.4
21MH170**	6.1	6.0	6.0	5.8
22MH180**	--	E.F.	--	8.1
23MRH010*	--	E.F.	--	6.7
24MRH020**	E.F.	E.F.	E.F.	--
25MFC030**	E.F.	E.F.	E.F.	8.2
26MHO190**	--	--	--	--

TABLE 36 (CONTINUED)

STATION	8/27/85		8/28/85	
	A.M.	P.M.	A.M.	P.M.
<u>Wild Harbor Drainage Basin (16)</u>				
27WH010*	--	E.F.	--	7.3
28WH020**	E.F.	E.F.	E.F.	8.3
29WH050**	--	--	--	--
<u>Herring Brook Drainage Basin (16)</u>				
30HB010**	E.F.	E.F.	E.F.	8.2
<u>West Falmouth Harbor Drainage Basin (16)</u>				
31WSH020**	E.F.	E.F.	E.F.	8.1
32WFH030**	E.F.	E.F.	E.F.	8.3
33WFH040**	E.F.	E.F.	E.F.	8.3
34WFH050**	--	--	E.F.	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>				
35GSC020**	E.F.	E.F.	E.F.	8.1
<u>Little Sippewisset Creek Drainage Basin (16)</u>				
36LSC020**	E.F.	E.F.	E.F.	8.2
<u>Quissett Harbor Drainage Basin (16)</u>				
37QH030**	--	--	--	--
38QH040**	--	--	--	--

* Freshwater Stations
 ** Tidal Stations
 -- No samples taken
 E.F. Equipment failure
 A Sample bottle broken in transit

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 37

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III pH DATA (Standard log units) (1)

STATION	8/27/85		8/28/85	
	A.M.	P.M.	A.M.	P.M.
<u>Cape Cod Canal (13)</u>				
1CC020**	7.7	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>				
2BR020*	--	6.2	--	6.9
3BR030**	7.4	7.4	7.5	8.0
4BR050**	7.8	--	--	--
5PH030**	7.8	--	--	--
6PH060**	7.8	--	--	--
7TI020**	7.8	7.9	7.8	7.9
<u>Pocasset River Drainage Basin (14)</u>				
8PR010*	--	6.2	--	6.1
9PR040**	7.7	7.8	7.5	7.5
<u>Pocasset Harbor Drainage Basin (15)</u>				
10PH010**	7.5	7.6	7.6	8.0
11POH030**	7.6	--	--	--
12POH080**	7.4	--	--	--
13PP050**	7.4	7.9	7.9	7.9
<u>Red Brook Harbor Basin (15)</u>				
14POH040**	7.4	--	--	--
15RBH030**	7.5	--	--	--
16RH020*	--	6.4	--	6.5
17RH010*	--	6.0	--	5.9
18HC010**	7.5	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>				
19MH110*	--	5.5	--	6.4
20MH140*	--	6.0	--	5.3
21MH170**	4.6	6.1	6.2	A
22MH180**	7.7	8.0	7.8	7.8
23MRH010*	--	6.4	--	6.8
24MRH020**	7.3	8.2	7.5	--
25MFC030**	7.7	8.2	7.6	8.0
26MHO190**	--	--	7.8	--

TABLE 37 (CONTINUED)

STATION	8/27/85		8/28/85	
	A.M.	P.M.	A.M.	P.M.
<u>Wild Harbor Drainage Basin (16)</u>				
27WH010*	--	6.7	--	6.6
28WH020**	7.5	8.0	7.7	8.2
29WH050**	--	--	7.9	--
<u>Herring Brook Drainage Basin (16)</u>				
30HB010**	7.6	8.0	7.7	7.9
<u>West Falmouth Harbor Drainage Basin (16)</u>				
31WSH020**	7.4	7.2	7.0	7.8
32WFH030**	7.7	7.2	7.7	7.9
33WFH040**	7.9	8.1	7.8	8.0
34WFH050**	--	--	7.8	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>				
35GSC020**	7.8	7.4	7.8	8.0
<u>Little Sippewisset Creek Drainage Basin (16)</u>				
36LSC020**	7.7	7.9	7.7	7.7
<u>Quissett Harbor Drainage Basin (16)</u>				
37QH030**	--	--	7.8	--
38QH040**	--	--	7.9	--

* Freshwater Station - composite samples
 ** Tidal Station - individual grab samples
 (1) Measurements conducted at Lawrence Experiment Station
 A Sample bottle broken in transit
 -- No samples taken

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 38

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II FRESHWATER STATIONS TOTAL ALKALINITY DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Buttermilk Bay Drainage Basin (11)</u>					
2BB020*	--	--	4.0	--	--
<u>Onset Bay Drainage Basin (12)</u>					
6GB040*	--	--	8.0	--	--
7UP010*	Not sampled - insufficient flow				
<u>Agawam River Drainage Basin (10)</u>					
13AR070*	6.0	--	7.0	--	--
14AR080*	5.0	--	4.0	--	--
<u>Wankinco River Drainage Basin (10)</u>					
16WR0060*	--	--	20.0	--	--
17WR0070*	--	--	15.0	--	18.0
<u>Weweantic River Drainage Basin (10)</u>					
19WEO110*	5.0	--	7.0	--	--
20WEO120*	4.0	--	6.0	--	--
<u>Sippican River Drainage Basin (10)</u>					
28SRO150*	--	--	7.0	--	--
29SRO160*	4.0	--	4.0	--	--
<u>Mattapoissett River Drainage Basin (8)</u>					
34MR010*	--	--	3.0	--	--
35MR050*	--	--	4.0	--	--
36MR080*	--	--	5.0	--	--
<u>Mattapoissett Harbor Drainage Basin (8)</u>					
37PI010*	--	--	0.0	--	--
39MH010*	--	--	29.0	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 39

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III TOTAL ALKALINITY DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Cape Cod Canal (13)</u>					
1CC020**	--	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	8.0	--	15	11.5
3BR030**	62	77	80	90	77.3
4BR050**	--	--	--	--	--
5PH030**	--	--	--	--	--
6PH060**	--	--	--	--	--
7TI020**	90	88	90	90	89.5
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	6.0	--	5.0	10.5
9PR040**	110	88	82	73	88.3
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH020**	93	70	89	88	85.0
11POH030**	--	--	--	--	--
12POH080**	--	--	--	--	--
13PP050**	66	88	94	92	85.0
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	--	--	--	--	--
15RBH030**	--	--	--	--	--
16RH020*	--	6.0	--	7.0	11.5
17RH010*	--	5.0	--	5.0	5.0
18HC010**	--	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	3.0	--	5.0	4.0
20MH140*	--	4.0	--	3.0	3.5
21MH170**	1.0	5.0	6.0	--	4.0
22MH180**	82	88	86	85	85.3
23MRH010*	--	8.0	--	15	11.5
24MRH020**	39	95	76	--	70.0
25MFC030**	94	100	93	92	94.5
26MHO190**	--	--	--	--	--

TABLE 39 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	10	--	13	11.5
28WH020**	78	87	88	94	87.0
29WH050**	--	--	--	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	65	100	89	89	85.8
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	43	65	49	73	57.5
32WFH030**	86	83	92	92	88.3
33WFH040**	97	101	97	99	98.5
34WFH050**	--	--	--	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	100	80	100	94	93.5
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	100	94	101	90	96.3
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	--	--	--
38QH040**	--	--	--	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 40
1985 BUZZARDS BAY WATER QUALITY SURVEY
AREA II CHLORIDE DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	--	--	9.0	--	10.0	9.5
BB030*	--	--	--	--	--	--
1RB010**	12	12	23	27	18	20
3BB040**	15,500	15,250	15,000	16,500	15,000	15,438
4BB050**	--	16,500	17,500	16,000	11,500	15,375
5BB060**	16,500	--	--	12,000	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	16	--	19	17.5
7UP010*	--	--	--	--	--	--
8MC020**	--	16,500	14,500	16,500	17,000	16,125
9ER030**	--	17,250	19,000	20,500	17,500	18,563
10OB0300**	--	--	--	16,500	--	--
11OB0200**	--	--	--	18,000	--	--
12OB0400**	--	--	--	15,800	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	6.0	--	1.0	--	8.0	4.5
14AR080*	6.0	--	9.0	--	7.0	8.0
15AR090**	41	1,300	350	2,050	1,550	1,313
<u>Wankinco River Drainage Basin (10)</u>						
16WR0060*	--	--	10	--	8.0	9.0
17WR0070*	--	--	90	--	13	11
18WR0100**	34	450	17	1,475	23	491
<u>Weweantic River Drainage Basin (10)</u>						
19WE0110*	10	--	17	--	13	10.0
20WE0120*	10	--	12	--	14	13.0
21WE0130**	5,500	7,750	8,400	9,500	11,000	9,163
22WE0140**	--	--	--	--	12,000	--
<u>Sippican River Drainage Basin (10)</u>						
28SR0150*	--	--	12	--	11	11.5
29SR0160*	14	--	13	--	23	18

TABLE 40 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WA0170**	9,500	10,750	11,600	12,000	11,000	11,338
24WA0180**	11,000	--	--	13,000	--	--
25WA0190**	12,000	--	--	14,000	--	--
26WA0200**	14,000	--	--	15,000	--	--
27WA0210**	--	--	--	15,000	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SH0100**	--	17,500	--	--	--	--
31SH0200**	--	18,000	--	--	--	--
32SH0300**	--	18,000	--	--	--	--
33SH0400**	--	17,500	--	--	--	--
<u>Mattapoissett River Drainage Basin (8)</u>						
34MR010*	--	--	13	--	13	13.0
35MR050*	--	--	11	--	12	11.5
36MR080*	--	--	11	--	11	11.0
<u>Mattapoissett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	28	--	46	37.0
38MH030**	--	16,150	10,000	16,000	10,000	13,038
39MH010*	--	--	31	--	31	31.0
40MH0700**	--	17,500	--	--	--	--
41MH0800**	--	18,000	--	--	--	--

* Freshwater Stations - composite samples

** Tidal Stations - grab samples

-- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck

8/13/85 high tide 0620 - low tide 1141, Wings Neck

8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 41

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III CHLORIDE DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Cape Cod Canal (13)</u>					
1CC020**	17,500	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	9.0	24	--	16.5
3BR030**	10,000	14,500	13,000	14,750	13,063
4BR050**	15,000	--	--	--	--
5PH030**	15,500	--	--	--	--
6PH060**	17,000	--	--	--	--
7TI020**	16,000	15,000	15,000	15,750	15,438
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	23	--	17	20
9PR040**	12,500	15,000	13,500	12,250	13,313
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	10,000	--	--	--	--
11POH030**	15,500	--	--	--	--
12POH080**	16,000	--	--	--	--
13PP050**	15,000	15,000	16,000	16,250	15,563
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	14,000	--	--	--	--
15RBH030**	15,500	--	--	--	--
16RH020*	--	18	--	17	17.5
17RH020*	--	31	--	30	30.5
18HC0010**	17,000	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	27	--	25	26.0
20MH140*	--	14	--	18	16.0
21MH170**	200	19	82	N.D.	100.3
22MH180**	14,500	17,000	14,500	16,000	15,500
23MRH010*	--	45	--	41	43
24MRH020**	6,000	16,000	12,000	--	--
25MFC030**	16,500	17,500	16,500	16,500	11,333
26MHO190	--	--	17,500	--	--

TABLE 41 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	750	--	1,200	975
28WHO20**	14,500	14,000	14,500	16,000	14,750
29WHO50**	--	--	16,500	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HBO10**	10,500	16,500	14,500	14,500	14,000
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	7,000	12,500	6,500	12,000	9,500
32WFH030**	15,000	16,000	17,000	16,500	16,125
33WFH040**	18,500	17,000	17,000	17,375	
34WFH050**	--	--	17,000	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	17,000	15,500	16,500	16,500	16,375
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	17,000	16,000	17,500	16,500	16,750
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	17,000	--	--
38QH040**	--	--	18,500	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken
 (N.D.) No data taken

TABLE 42

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II SALINITY DATA

TIME (hrs) - TEMPERATURE (C°) - SALINITY (‰)

DATE: RUN: STATION	5/22/85			8/13/85						8/14/85					
	1			1			2			3			4		
	TIME	TEMP.	SAL.	TIME	TEMP.	SAL.	TIME	TEMP.	SAL.	TIME	TEMP.	SAL.	TIME	TEMP.	SAL.
<u>Buttermilk Bay Drainage Basin (11)</u>															
1RB010	--	--	--	--	--	--	1550	20	0	1011	17.2	0	1631	21.7	0
3BB040	--	--	--	--	--	--	1614	25	26	1030	25.0	25.5	1645	26.7	27.0
4BB050	--	--	--	--	--	--	1630	20	21	1051	22.2	26.5	1704	21.1	26.0
5BB060	1500	16	29.2	--	--	--	--	--	--	--	--	--	1120	24.0	28.5
<u>Onset Bay Drainage Basin (12)</u>															
8MC020	--	--	--	--	--	--	1538	25	27	0950	23.9	23.5	1619	25.6	28.0
9ER030	--	--	--	--	--	--	1526	24.5	27	0940	22.8	28.5	1608	26.1	28.0
10OB0300	--	--	--	--	--	--	--	--	--	1105	24.0	28.5	--	--	--
11OB0200	--	--	--	--	--	--	--	--	--	1120	24.0	28.5	--	--	--
12OB0400	--	--	--	--	--	--	--	--	--	1130	23.0	28.5	--	--	--
<u>Agawam River Drainage Basin (10)</u>															
15AR090	--	--	--	--	--	--	1506	26.7	1	0933	23.9	4	1552	27.8	4
<u>Wankinco River Drainage Basin (10)</u>															
18WRO100	--	--	--	--	--	--	1442	25.0	26	0859	23.9	3	1524	25.0	0
<u>Weweantic River Drainage Basin (10)</u>															
21WEO130	--	--	--	--	--	--	1429	27.2	13.5	0840	23.9	17.5	1501	26.7	19.5
22WEO140	1315	19.5	21.8	--	--	--	--	--	--	0855	25.0	26.5	--	--	--

TABLE 42 (CONTINUED)

DATE:	5/22/85			8/13/85						8/14/85					
RUN:	1			1			2			3			4		
STATION	TIME	TEMP.	SAL.	TIME	TEMP.	SAL.	TIME	TEMP.	SAL.	TIME	TEMP.	SAL.	TIME	TEMP.	SAL.
<u>Wareham River Drainage Basin (10)</u>															
23WAO170	--	--	--	--	--	--	1458	26.7	20	0914	24.5	20.0	1538	27.8	20.0
24WAO180	1115	21	16	--	--	--	--	--	--	0945	26.0	24.0	--	--	--
25WAO190	1200	18	20	--	--	--	--	--	--	0930	26.0	25.0	--	--	--
26WAO200	1230	18	23	--	--	--	--	--	--	0920	26.0	27.0	--	--	--
27WAO210	1255	18	24.9	--	--	--	--	--	--	0910	26.0	27.5	--	--	--
<u>Sippican Harbor Drainage Basin (9)</u>															
30SHO100	--	--	--	0940	25	35	--	--	--	--	--	--	--	--	--
31SHO200	--	--	--	0950	25	35	--	--	--	--	--	--	--	--	--
32SHO300	--	--	--	1010	24.5	35	--	--	--	--	--	--	--	--	--
33SHO400	--	--	--	0905	24	34	--	--	--	--	--	--	--	--	--
<u>Mattapoisett Harbor Drainage Basin (8)</u>															
38MH030	--	--	--	--	--	--	1349	29.5	16	0755	23.3	27	1425	31	18.0
40MHO700	--	--	--	0815	24	33.5	--	--	--	--	--	--	--	--	--
41MHO800	--	--	--	0840	23	33.5	--	--	--	--	--	--	--	--	--

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Salinity and temperature measurements were made with a YSI Model 33 SCT meter manufactured by Yellowstone Instrument Company, Yellowstone, Ohio.

-- No measurements taken

8/13/85 high tide 1029 - low tide 1542, Wings Neck

8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 43

1985 BUZZARDS BAY WATER QUALITY SURVEY
 AREA II SPECIFIC CONDUCTIVITY (umhos/cm)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Buttermilk Bay Drainage Basin (11)</u>					
2BB020*	--	--	73	--	81
BB030*	--	--	--	--	--
1RB010**	105	65	220	230	230
3BB040**	30,000	34,000	34,000	35,000	34,000
4BB050**	--	36,000	37,000	36,000	36,000
5BB060**	34,000	--	--	37,000	--
<u>Onset Bay Drainage Basin (12)</u>					
6GB040*	--	--	170	--	120
7UP010*	Not sampled - Insufficient flow				
8MC020**	--	34,000	34,000	35,000	36,000
9ER030**	--	34,000	35,000	38,000	36,000
10OB0300**	--	--	--	37,000	--
11OB0200**	--	--	--	38,000	--
12OB0400**	--	--	--	38,000	--
<u>Agawam River Drainage Basin (10)</u>					
13AR070*	90	--	110	--	86
14AR080*	56	--	58	--	56
15AR090**	200	3900	1000	5800	4400
<u>Wankinco River Drainage Basin (10)</u>					
16WRO060*	--	--	60	--	450
17WRO070*	--	--	86	--	520
18WRO100**	180	1500	100	4400	130
<u>Weweantic River Drainage Basin (10)</u>					
19WEO110*	110	--	74	--	78
20WEO120*	69	--	82	--	78
21WEO130**	14,000	19,000	23,000	24,000	26,000
22WEO140**	--	--	--	35,000	--
<u>Sippican River Drainage Basin (10)</u>					
28SRO150*	--	--	210	--	180
29SRO160*	90	--	88	--	105

TABLE 43 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Wareham River Drainage Basin (10)</u>					
23WAO170**	19,000	25,000	28,000	38,000	27,000
24WAO180**	28,000	--	--	33,000	--
25WAO190**	27,000	--	--	32,000	--
26WAO200*	28,000	--	--	35,000	--
27WAO210**	--	--	--	35,000	--
<u>Sippican Harbor Drainage Basin (9)</u>					
30SHO100**	--	--	33,000	--	--
31SHO200**	--	--	33,000	--	--
32SHO300**	--	--	33,000	--	--
33SHO400**	--	--	32,000	--	--
<u>Mattapoisett River Drainage Basin (8)</u>					
34MR010*	--	--	94	--	88
35MR050*	--	--	88	--	78
36MR080*	--	--	89	--	178
<u>Mattapoisett Harbor Drainage Basin (8)</u>					
37PI010*	--	--	230	--	249
38MH030**	--	34,000	24,000	35,000	24,000
39MH010*	--	--	280	--	270
40MHO700**	--	--	33,000	--	--
41MHO800**	--	--	33,000	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 44

1985 BUZZARDS BAY WATER QUALITY SURVEY
 AREA III SPECIFIC CONDUCTIVITY (umhos/cm)

STATION	8/27/85		8/28/85	
	A.M.	P.M.	A.M.	P.M.
<u>Cape Cod Canal (13)</u>				
1CC020**	36,000	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>				
2BR010*	--	71	--	120
3BR030**	24,000	33,000	30,000	36,000
4BR050**	34,000	--	--	--
5PH030**	34,000	--	--	--
6PH060**	38,000	--	--	--
7TI020**	36,000	33,000	33,000	36,000
<u>Pocasset River Drainage Basin (14)</u>				
8PR010*	--	120	--	150
9PR040**	36,000	32,000	28,000	28,000
<u>Pocasset Harbor Drainage Basin (15)</u>				
10PH010**	24,000	25,000	32,000	36,000
11POH030**	36,000	--	--	--
12POH080**	36,000	--	--	--
13PP050**	35,000	34,000	36,000	38,000
<u>Red Brook Harbor Basin (15)</u>				
14POH040**	32,000	--	--	--
15RBH030**	35,000	--	--	--
16RH020*	--	125	--	190
17RH010*	--	130	--	140
18HC010**	36,000	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>				
19MH110*	--	110	--	120
20MH140*	--	64	--	68
21MH170**	474	86	360	A
22MH180**	31,000	33,000	31,000	36,000
23MRH010*	--	210	--	220
24MRH020**	14,000	34,000	28,000	--
25MFC030**	35,000	35,000	36,000	36,000
26MHO190**	--	--	35,000	--

TABLE 44 (CONTINUED)

STATION	8/27/85		8/28/85	
	A.M.	P.M.	A.M.	P.M.
<u>Wild Harbor Drainage Basin (16)</u>				
27WH010*	--	2,400	--	3,900
28WH020**	31,000	32,000	32,000	38,000
29WH050**	--	--	36,000	--
<u>Herring Brook Drainage Basin (16)</u>				
30HB010*	25,000	34,000	33,000	34,000
<u>West Falmouth Harbor Drainage Basin (16)</u>				
31WSH020**	13,000	24,000	15,000	28,000
32WFH030**	34,000	34,000	33,000	35,000
33WFH040*	38,000	36,000	36,000	38,000
34WFH050**	--	--	38,000	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>				
35GSC020**	36,000	34,000	38,000	36,000
<u>Little Sippewisset Creek Drainage Basin (16)</u>				
36LSC020**	38,000	36,000	38,000	36,000
<u>Quissett Harbor Drainage Basin (16)</u>				
37QH030**	--	--	38,000	--
38QH040**	--	--	39,000	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken
 A - Sample broken in transit

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 45
1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II TOTAL SOLIDS DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	--	--	46	--	36	44
BB030*	--	--	--	--	--	--
1RB010**	62	38	50	72	52	53
3BB040**	29,600	28,800	30,410	29,650	29,480	29,585
4BB050**	--	30,210	33,110	31,710	32,410	31,860
5BB060**	30,980	--	--	33,410	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	52	--	50	51
7UP010*		I n s u f f i c i e n t f l o w				
8MC020**	--	28,600	30,810	30,140	30,420	29,992
9ER030**	--	30,500	32,140	31,020	30,500	31,040
10OB0300**	--	--	--	32,230	--	--
11OB0200**	--	--	--	33,510	--	--
12OB0400*	--	--	--	33,020	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	36	--	22	--	12	16
14AR080*	52	--	22	--	24	23
15AR090**	130	2,430	638	3,980	2,760	2,452
<u>Wankinco River Drainage Basin (10)</u>						
16WRO060*	--	--	34	--	310	172
17WRO070*	--	--	54	--	354	204
18WRO100*	150	990	54	2,910	54	1,002
<u>Weweantic River Drainage Basin (10)</u>						
19WE0110*	64	--	80	--	72	76
20WE0120*	66	--	72	--	70	71
21WE0130**	11,930	14,440	15,610	18,366	20,300	17,179
22WE0140**	--	--	--	29,200	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SRO150*	--	--	60	--	62	61
29SRO160*	88	--	80	--	36	58

TABLE 45 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WAO170**	18,020	19,820	23,330	23,550	20,230	21,733
24WAO180**	27,990	--	--	26,840	--	--
25WAO190**	23,080	--	--	28,310	--	--
26WAO200**	25,320	--	--	29,840	--	--
27WAO210**	--	--	--	30,188	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SHO100**	--	--	30,660	--	--	--
31SHO200**	--	--	30,460	--	--	--
32SHO300**	--	--	31,640	--	--	--
33SHO400**	--	--	30,820	--	--	--
<u>Mattapoisett River Drainage Basin (8)</u>						
34MR010*	--	--	92	--	70	81
35MR050*	--	--	86	--	70	78
36MR080*	--	--	86	--	100	93
<u>Mattapoisett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	172	--	192	182
38MH030**	--	30,840	19,670	30,030	18,590	24,783
30MH010*	--	--	158	--	150	154
40MHO700**	--	--	32,720	--	--	--
41MHO800**	--	--	32,470	--	--	--

* Freshwater Stations - composite samples

** Tidal Stations - individual grab samples

5/22/85 high tide 1029 - low tide 1542, Wings Neck

8/13/85 high tide 0620 - low tide 1141, Wings Neck

8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 46

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III TOTAL SOLIDS DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Cape Cod Canal (13)</u>					
1CC020**	31,320	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	56	--	75	66
3BR030**	17,780	27,870	25,430	29,520	25,150
4BR050**	27,050	--	--	--	--
5PH030**	28,310	--	--	--	--
6PH060**	30,640	--	--	--	--
7TI020**	28,620	28,990	29,160	29,200	28,993
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	95	--	60	78
9PR040**	20,200	28,550	26,540	23,630	24,718
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH020**	18,360	21,460	29,210	29,480	24,628
11POH030**	28,680	--	--	--	--
12POH080**	29,660	--	--	--	--
13PP050**	27,330	29,440	31,190	30,940	29,725
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	25,260	--	--	--	--
15RBH030**	28,040	--	--	--	--
16RH020*	--	80	--	42	61
17RH010*	--	106	--	98	102
18HC010**	30,230	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	92	--	72	82
20MH140*	--	62	--	36	49
21MH170**	376	64	180	A	207
22MH180**	25,570	29,530	28,250	29,980	29,980
23MRH010*	--	155	--	94	125
24MRH020**	10,280	31,760	23,830	--	21,957
25MFC030**	28,990	33,480	31,120	31,040	31,158
26MH0190**	--	--	32,820	--	--

TABLE 46 (CONTINUED)

STATION	8/28/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	1,554	--	2,470	2,012
28WH020**	25,770	28,400	27,850	31,510	28,383
29WH050**	--	--	31,780	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	19,540	31,930	28,570	28,330	27,093
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	8,990	21,230	11,020	22,850	16,023
32WFH030**	27,500	30,720	30,430	29,920	29,643
33WFH040**	31,000	33,060	31,640	32,740	32,110
34WFH050**	--	--	32,300	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	30,500	30,010	32,340	32,360	31,303
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	31,080	31,760	32,800	32,400	32,910
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	33,150	--	--
38QH040**	--	--	33,160	--	--

* Freshwater Stations - composite samples
 ** Total Stations - individual grab samples
 -- No samples taken
 A - Sample broken in transit

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 47

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II DISSOLVED SOLIDS DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	--	--	--	--	32	--
BB030*	--	--	--	--	--	--
1RB010**	--	34	48	68	51	50
3BB040**	--	28,800	30,400	29,645	29,460	29,576
4BB050**	--	30,200	33,100	31,700	32,400	31,850
5BB060**	--	--	--	--	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	--	--	46	--
7UP010*	--	Not sampled - insufficient flow				--
8MC020**	--	28,580	30,800	30,136	30,410	29,982
9ER030**	--	30,490	32,130	31,010	30,480	31,028
10OB0300**	--	--	--	--	--	--
11OB0200**	--	--	--	--	--	--
12OB0400**	--	--	--	--	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	--	--	--	--	11	--
14AR080*	--	--	21	--	22	21.5
15AR090**	--	2,420	633	3,970	2,750	2,443
<u>Wankinco River Drainage Basin (10)</u>						
16WRO060*	--	--	--	--	305	--
17WRO070*	--	--	--	--	350	--
18WRO100**	--	985	53	2,900	52	998
<u>Weweantic River Drainage Basin (10)</u>						
19WEO110*	--	--	--	--	68	--
20WEO120*	--	--	--	--	66	--
21WEO130**	--	14,380	15,600	18,350	20,290	17,905
22WEO140**	--	--	--	--	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SRO150*	--	--	--	--	57	--
29SRO160*	--	--	--	--	34	--

TABLE 47 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WAO170**	--	19,810	23,320	23,540	20,220	21,723
24WAO180**	--	--	--	--	--	--
25WAO190**	--	--	--	--	--	--
26WAO200**	--	--	--	--	--	--
27WAO210**	--	--	--	--	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SHO100**	--	--	--	--	--	--
31SHO200**	--	--	--	--	--	--
32SHO300**	--	--	--	--	--	--
33SHO450**	--	--	--	--	--	--
<u>Mattapoisett River Drainage Basin (8)</u>						
34MR010*	--	--	--	--	66	--
35MR050*	--	--	--	--	66	--
36MR080*	--	--	--	--	95	--
<u>Mattapoisett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	--	--	191	--
38MH030**	--	30,830	--	30,020	18,580	26,477
39MH010*	--	--	--	--	135	--

* Freshwater Stations - composite samples

** Tidal Stations - individual grab samples

-- No samples taken

8/13/85 high tide 0620 - low tide 1542, Wings Neck

8/14/85 high tide 0707 - low tide 1141, Wings Neck

TABLE 48

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II SUSPENDED SOLIDS DATA (mg/l)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Buttermilk Bay Drainage Basin (11)</u>						
2BB020*	--	--	3.0	--	4.0	3.5
BB030*	--	--	--	--	--	--
1RB010**	4.0	4.0	2.5	4.5	1.0	3.0
3BB040**	14	3.5	5.0	5.5	20	8.5
4BB050**	--	4.5	4.0	7.5	10	6.5
5BB060**	7.0	4.5	--	--	--	--
<u>Onset Bay Drainage Basin (12)</u>						
6GB040*	--	--	4.5	--	4.0	4.3
7UP010*		Not sampled - insufficient flow				
8MC020**	--	5.5	4.5	4.0	10	6.0
9ER030**	--	5.5	4.5	5.0	20	8.75
10OB0300**	--	4.5	--	--	--	--
11OB0200**	--	4.5	--	--	--	--
12OB0400**	--	6.5	--	--	--	--
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	1.5	--	0.0	--	1.0	0.5
14AR080*	0.0	--	1.5	--	2.0	1.75
15AR090**	7.5	5.0	5.5	7.0	10	6.88
<u>Wankinco River Drainage Basin (10)</u>						
16WRO060*	--	--	0.5	--	5.0	2.75
17WRO070*	--	--	3.5	--	4.0	3.75
18WRO100**	6.5	1.5	1.5	4.0	2.0	2.25
<u>Weweantic River Drainage Basin (10)</u>						
19WEO110*	7.5	--	5.5	--	4.0	4.75
20WEO120*	5.0	--	3.5	--	4.0	3.75
21WEO130**	12	3.0	11	12	10	9.0
22WEO140**	--	8.0	--	--	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SRO150*	--	--	3.0	--	5.0	4.0
29SRO160*	2.0	--	2.0	--	2.0	2.0

TABLE 48 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85		8/13-14/85 AVERAGE
		A.M.	P.M.	A.M.	P.M.	
<u>Wareham River Drainage Basin (10)</u>						
23WAO170**	13	4.0	7.0	9.5	10	7.6
24WAO180**	12	3.5	--	--	--	--
25WAO190**	11	4.5	--	--	--	--
26WAO200**	11	3.0	--	--	--	--
27WAO210**	--	5.0	--	--	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SHO100**	--	10	--	--	--	--
31SHO200**	--	7.0	--	--	--	--
32SHO300**	--	11	--	--	--	--
33SHO400**	--	6.5	--	--	--	--
<u>Mattapoissett River Drainage Basin (8)</u>						
34MR010*	--	--	1.0	--	4.0	2.0
35MR050*	--	--	0.5	--	4.0	2.25
36MR080*	--	--	2.5	--	5.0	3.75
<u>Mattapoissett Harbor Drainage Basin (8)</u>						
37PI010*	--	--	0.5	--	1.0	0.75
38MH030**	--	4.5	4.5	12	10	7.75
39MH010*	--	--	21	--	15	18
40MH0700**	--	10	--	--	--	--
41MH0800**	--	7.0	--	--	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 49

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III SUSPENDED SOLIDS DATA (mg/l)

STATION	8/27/85		8/28/85		8/27-28/85
	A.M.	P.M.	A.M.	P.M.	AVERAGE
<u>Cape Cod Canal (13)</u>					
1CC020**	9.5	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	5.0	--	5.0	5.0
3BR030**	5.5	14	18	15	13.1
4BR050**	6.5	--	--	--	--
5PH030**	13.	--	--	--	--
6PH060**	9.0	--	--	--	--
7TI020**	12	17	16	16	15.3
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	15	--	3.0	9.0
9PR040**	5.5	19	8.0	11	10.9
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	10	16	15	12	13.3
11POH030**	14	--	--	--	--
12POH080**	8.5	--	--	--	--
13PP050**	12	18	11	14	13.8
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	8.5	--	--	--	--
15RBH030**	4.0	--	--	--	--
16RH020*	--	5.0	--	14	9.5
17RH010*	--	3.0	--	1.5	2.3
18HC010**	12	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	9.0	--	0.5	4.8
20MH140*	--	2.5	--	2.5	2.5
21MH170**	1.5	5.5	6.5	A	4.5
22MH180**	8.0	14	16	22	15.0
23MRH010*	--	5.0	--	2.5	3.8
24MRH020**	4.5	22	9.5	--	12.0
25MFC030**	10	17	9.5	12	12.1
26MHO190**	--	--	10	--	--

TABLE 49 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	11	--	18	14.5
28WH020**	7.5	36	12	17	18.1
29WH050**	--	--	15	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	5.0	22	8.7	30	16.4
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	3.5	17	8.7	16	11.3
32WFH030**	3.5	34	14	20	17.9
33WFH040**	6.0	20	13	11	12.2
34WFH050**	--	--	11	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	6.5	1.5	19	25	13
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	9.5	19	17	15	15.1
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	11	--	--
38QH040**	--	--	46	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken
 A - Sample bottle broken in transit

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 50

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II TURBIDITY DATA (NTU) (Nephelometric Turbidity Units)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Buttermilk Bay Drainage Basin (11)</u>					
2BB020*	--	--	3.2	--	--
BB030*	--	--	--	--	--
1RB010**	1.6	--	--	--	--
3BB040**	0.3	--	--	--	--
4BB050**	--	--	--	--	--
5BB060**	0.5	7.6	--	--	--
<u>Onset Bay Drainage Basin (12)</u>					
6GB040*	--	--	2.5	--	--
7UP010*	Not sampled - insufficient flow				
88MC020**	--	--	--	--	--
9ER030**	--	--	--	--	--
100B0300**	--	3.5	--	--	--
110B0200**	--	2.1	--	--	--
120B0400**	--	1.7	--	--	--
<u>Agawam River Drainage Basin (10)</u>					
13AR070*	0.5	--	1.4	--	--
14AR080*	0.6	--	1.2	--	--
15AR090**	0.7	--	--	--	--
<u>Wankinco River Drainage Basin (10)</u>					
16WRO060*	--	--	1.4	--	--
17WRO070*	--	--	2.6	--	2.8
18WRO100**	0.8	--	--	--	--
<u>Weweantic River Drainage Basin (10)</u>					
19WEO110*	1.1	--	4.5	--	--
20WEO120*	1.4	--	4.7	--	--
21WEO130**	1.3	--	--	--	--
22WEO140**	--	2.9	--	--	--
<u>Sippican River Drainage Basin (10)</u>					
28SRO150*	--	--	3.2	--	--
29SRO160*	0.7	--	2.3	--	--

TABLE 50 (CONTINUED)

STATION	5/22/85	8/13/85		8/14/85	
		A.M.	P.M.	A.M.	P.M.
<u>Wareham River Drainage Basin (10)</u>					
23WAO170**	0.5	--	--	--	--
24WAO180**	0.4	2.4	--	--	--
25WAO190**	0.5	2.6	--	--	--
26WAO200**	0.3	1.9	--	--	--
27WAO210**	--	2.2	--	--	--
<u>Sippican Harbor Drainage Basin (9)</u>					
30SHO100**	--	1.4	--	--	--
31SHO200**	--	4.5	--	--	--
32SHO300**	--	5.6	--	--	--
33SHO400**	--	2.7	--	--	--
<u>Mattapoissett River Drainage Basin (8)</u>					
34MR010*	--	--	1.9	--	--
35MR050*	--	--	1.9	--	--
36MR080*	--	--	1.8	--	--
<u>Mattapoissett Harbor Drainage Basin (8)</u>					
37PI010*	--	--	16	--	--
38MH030**	--	--	--	--	--
39MH010*	--	--	5.4	--	--
40MH0700**	--	3.6	--	--	--
41MHO800**	--	2.8	--	--	--

* Freshwater Stations - composite samples

** Tidal Stations - individual grab samples

TABLE 51

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III TURBIDITY DATA (NTU) (Nephelometric Turbidity Units)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Cape Cod Canal (13)</u>					
1CC020**	1.9	--	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*	--	5.8	--	2.3	4.05
3BR030**	3.1	2.9	--	2.2	2.73
4BR050**	2.2	--	--	--	--
5PH030**	2.8	--	--	--	--
6PH060**	2.0	--	--	--	--
7TI020**	2.2	3.8	--	1.7	2.57
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*	--	4.5	--	1.2	2.85
9PR040**	3.4	3.3	--	1.8	2.83
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**	5.8	6.8	--	1.9	4.83
11POH030**	3.0	--	--	--	--
12POH080**	2.5	--	--	--	--
13PP050**	2.8	4.9	--	1.5	3.07
<u>Red Brook Harbor Basin (15)</u>					
14POH040**	2.6	--	--	--	--
15RBH030**	2.0	--	--	--	--
16RH020*	--	3.3	--	1.4	2.35
17RH010*	--	3.2	--	1.1	2.15
18HC010**	1.7	--	--	--	--
<u>Megansett Harbor Drainage Basin (15)</u>					
19MH110*	--	3.4	--	1.0	2.2
20MH140*	--	2.2	--	1.6	1.9
21MH170**	5.3	3.7	--	A	3.0
22MH180**	3.9	3.5	--	1.7	3.03
23MRH010*	--	3.8	--	2.8	3.3
24MRH020**	3.9	3.4	--	--	3.65
25MFC030**	5.1	2.8	--	1.9	3.27
26MHO190**	--	--	1.3	--	--

TABLE 51 (CONTINUED)

STATION	8/27/85		8/28/85		8/27-28/85 AVERAGE
	A.M.	P.M.	A.M.	P.M.	
<u>Wild Harbor Drainage Basin (16)</u>					
27WH010*	--	7.7	--	4.3	6.0
28WH020**	4.7	1.6	3.5	3.8	7.0
29WH050**	--	--	4.3	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	3.4	5.89	3.8	4.1	4.28
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	3.2	3.8	2.6	2.9	3.13
32WFH030**	4.3	3.9	1.3	2.1	2.9
33WFH040**	4.8	6.8	2.4	2.0	4.0
34WFH050**	--	--	2.8	--	--
<u>Great Sippewisset Creek Drainage Basin (16)</u>					
35GSC020**	3.9	16	3.4	1.8	6.28
<u>Little Sippewisset Creek Drainage Basin (16)</u>					
36LSC020**	3.8	5.2	3.8	1.6	3.6
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	1.9	--	--
38QH040**	--	--	2.5	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken
 A - Bottle broken in transit

8/27/85 high tide 0612 - low tide 1224, Wings Neck
 8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 52

1985 BUZZARDS BAY WATER QUALITY SURVEY
 OUTER BAY STATIONS AREA V TOTAL SOLIDS (mg/l) -
 SUSPENDED SOLIDS (mg/l) - TURBIDITY (NTU)

STATION		DATE	TIMES	TOTAL SOLIDS	SUSPENDED SOLIDS	TURBIDITY
42WA0400	T	8/13/85	1532	31,390	26	2.2
	B	8/13/85	1538	32,540	22	3.8
43SH0500	T	8/13/85	1351	32,640	6.5	1.8
	B	8/13/85	1400	32,340	11	2.7
44BU0300	T	8/13/85	1158	32,530	9.0	1.8
	B	8/13/85	1216	32,270	7.5	1.1
45CC01	T	8/28/85	1535	34,230	14	0.6
	B	8/28/85	1540	34,310	19	1.4
46WH008	T	8/28/85	1400	33,540	32	1.7
	B	8/28/85	1405	33,690	12	3.2
47CL020	T	8/28/85	1215	33,820	23	0.7
	B	8/28/85	1230	34,140	12	1.8

8/13/85 high tide 0620 - low tide 1141, Wings Neck

8/28/85 high tide 0704 - low tide 1317, Wings Neck

T = Top

B = Bottom

TABLE 53

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II TOTAL METALS DATA (mg/l), May 22, 1985

STATION	CADMIUM	CHROMIUM	COPPER	LEAD	NICKEL	ZINC
<u>Buttermilk Bay Drainage Basin (11)</u>						
1RB010**	<0.02	<0.02	<0.02	<0.04	<0.05	<0.03
2BB020*	<0.02	<0.02	<0.02	<0.04	<0.05	<0.03
3BB040**	0.02	0.02	0.04	0.23	0.13	<0.03
5BB060**	<0.02	0.02	0.03	0.21	0.14	<0.03
<u>Agawam River Drainage Basin (10)</u>						
14AR080*	<0.02	<0.02	<0.02	<0.04	<0.05	<0.03
15AR090**	<0.02	<0.02	<0.02	<0.04	<0.05	<0.03
<u>Wankinco River Drainage Basin (10)</u>						
18WRO100**	<0.02	<0.02	<0.02	<0.04	<0.05	<0.03
<u>Weweantic River Drainage Basin (10)</u>						
21WEO130**	<0.02	<0.02	<0.02	0.12	<0.05	<0.03
<u>Sippican River Drainage Basin (10)</u>						
29SRO160*	<0.02	<0.02	<0.02	<0.04	<0.05	<0.03
<u>Wareham River Drainage Basin (10)</u>						
23WAO170**	<0.02	<0.02	0.03	0.12	<0.05	<0.03
24WAO180**	<0.02	0.03	0.03	0.19	0.12	<0.03
25WAO190**	0.02	0.04	0.03	0.17	0.10	<0.03

TABLE 54

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II TOTAL METALS DATA (mg/l), 8/13-14/85

STATION	RUN	CADMIUM	TOTAL CHROMIUM	COPPER	LEAD	MERCURY	NICKEL
<u>Buttermilk Day Drainage Basin (11)</u>							
1RB010**	1	<0.02	<0.02	<0.02	0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
2BB020*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
3BB040**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
4BB050**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
5BB060**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	0.03
<u>Onset Bay Drainage Basin (12)</u>							
6GB040*	2			B r o k e n b o t t l e			
	4	<0.02	<0.02	<0.02	0.06	<0.0002	<0.03
8MC020**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
9ER030**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0006	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	0.03
10OB0300**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
11OB0200**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
12OB0400**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03

TABLE 54 (CONTINUED)

STATION	RUN	CADMIUM	TOTAL CHROMIUM	COPPER	LEAD	MERCURY	NICKEL
<u>Agawam River Drainage Basin (10)</u>							
14AR080*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	0.35	<0.0002	<0.03
15AR090**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	0.13	<0.0002	<0.03
<u>Wankinco River Drainage Basin (10)</u>							
16WRO060*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
17WRO070*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	0.06	<0.0002	<0.03
18WRO100**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2				B r o k e n b o t t l e		
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Sippican River Drainage Basin (10)</u>							
29SRO160*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Weweantic River Drainage Basin (10)</u>							
20WEO120*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
21WEO130**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
22WEO140**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Wareham River Drainage Basin (10)</u>							
23WAO170**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03

TABLE 54 (CONTINUED)

STATION	RUN	CADMIUM	TOTAL CHROMIUM	COPPER	LEAD	MERCURY	NICKEL
<u>Wareham River Drainage Basin (10) Continued</u>							
24WAO180**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
25WAO190**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
26WAO200**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
27WAO210**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Sippican Harbor Drainage Basin (9)</u>							
30SHO100**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
31SHO200**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
32SHO300**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
33SHO400**	1	<0.02	<0.02	<0.02	<0.06	0.0002	<0.03
<u>Mattapoissett River Drainage Basin (8)</u>							
36MR080**	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
38MHO300**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
40MHO700**	1	0.02	0.02	<0.02	<0.06	0.0002	<0.03
41MHO800**	1	0.02	0.02	<0.02	<0.06	0.0002	<0.03

* Freshwater Station - composite samples

** Tidal Stations - individual grab samples

DATE:	8/13/85	8/14/85
	A.M. P.M.	A.M. P.M.
RUN:	1 2	3 4

8/13/85 high tide 0620 - low tide 1141, Wings Neck

8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 55

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III TOTAL METALS DATA (mg/l), 8/27-28/85

STATION	RUN	CADMIUM	TOTAL CHROMIUM	COPPER	LEAD	MERCURY	NICKEL
<u>Cape Cod Drainage Basin (13)</u>							
1CC020**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Phinneys Harbor Basin (14)</u>							
2BR010*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
3BR030**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.02	<0.0002	<0.03
4BR050**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
5PH030**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
6PH060**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Pocasset River Drainage Basin (14)</u>							
8PR010*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
9PR040**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.06	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Pocasset Harbor Drainage Basin (15)</u>							
10PH010**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.04
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	0.04
11POH030**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
12POH080**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
13PP050**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03

TABLE 55 (CONTINUED)

STATION	RUN	CADMIUM	TOTAL CHROMIUM	COPPER	LEAD	MERCURY	NICKEL
<u>Red Brook Harbor Drainage Basin (15)</u>							
14POH040**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
15RBH030**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
16RH020*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
17RH010*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
18HC010**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Megansett Harbor Drainage Basin (15)</u>							
19MH110*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
20MH140*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
21MH170**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
22MH180*	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
23MRH010*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	0.06	<0.0002	<0.03
24MRH020**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
25MFC030**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
26MHO190**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Wild Harbor Drainage Basin (16)</u>							
27WHO10*	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
28WHO20**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03

TABLE 55 (CONTINUED)

STATION	RUN	CADMIUM	TOTAL CHROMIUM	COPPER	LEAD	MERCURY	NICKEL
<u>Wild Harbor Drainage Basin (16) (continued)</u>							
28WHO20**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
29WHO50**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Herring Brook Drainage Basin (16)</u>							
30HBO100**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>West Falmouth Harbor Drainage Basin (16)</u>							
31WSH020**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
34WFH050**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Great Sippewisset Creek Drainage Basin (16)</u>							
35GSC020**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Little Sippewisset Creek Drainage Basin (16)</u>							
36LSC020**	1	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	2	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
	4	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
<u>Quisset Harbor Drainage Basin (16)</u>							
37QH030**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03
38QH040**	3	<0.02	<0.02	<0.02	<0.06	<0.0002	<0.03

* Freshwater Stations - composite samples

** Tidal Stations - individual grab samples

DATE: 8/27/85 8/28/85
 A.M. P.M. A.M. P.M.
 RUN: 1 2 3 4

8/27/85 high tide 0612 - low tide 1224, Wings Neck

8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 56

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA V OUTER BAY TOTAL METALS DATA (mg/l)

STATION:	42WA0400		43SH0500		44BU0300	
	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>
	8/13/85					
Time (hrs)	1532	1538	1351	1400	1158	1216
Cadmium	<0.02	<0.02	<0.02	*	<0.02	<0.02
Chromium	<0.02	<0.02	<0.02	*	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	*	<0.02	<0.02
Lead	<0.06	<0.06	<0.06	*	<0.06	<0.06
Mercury	<0.0002	<0.0002	<0.0002	*	<0.0002	<0.0002
Nickel	<0.03	<0.03	<0.03	*	<0.03	<0.03

STATION:	45CC01		46WH008		47CL020	
	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>	<u>TOP</u>	<u>BOTTOM</u>
	8/27/85					
Time (hrs)	1535	1540	1400	1405	1215	1230
Cadmium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chromium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Copper	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Lead	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
Mercury	<0.0002	<0.0002	0.004	0.0004	0.0006	0.002
Nickel	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03

* Bottle broken

TABLE 57

1985 BUZZARDS BAY WATER QUALITY SURVEY
CHLOROPHYLL DATA FROM SELECTED STATIONS

AREAS II and III (mg/m³)

STATION	DATE	TIME OF COLLECTION	CHLOROPHYLL (mg/m ³)
<u>AREA II</u>			
6GB040*	8/14/85	0405	4.8
14AR080*	8/14/85	0819	0.2
16WRO060*	8/14/85	0644	1.7
17WRO070*	8/14/85	0725	1.3
19WEO110*	8/14/85	0637	0.8
20WEO120*	8/14/85	0626	1.7
35MR050*	8/14/85	0532	0.4
36MR080*	8/14/85	0518	0.5
<u>AREA III</u>			
2BR010*	8/27/85	1523	1.5
3BR030**	8/27/85	1803	12.5
8PR010*	8/27/85	1533	2.65
9PR040**	8/27/85	1734	6.2
10PH010**	8/27/85	1710	24.0
16RH020*	8/27/85	1624	2.9
17RH010*	8/27/85	1554	1.0
19MH110*	8/27/85	1543	0.75
20MH140*	8/27/85	1613	4.2
21MH170**	8/27/85	1638	2.8
23MRH010*	8/27/85	1613	13.4
24MRH020**	8/27/85	1612	4.3
25MFC030**	8/27/85	1600	7.2
27WH010*	8/27/85	1340	33.75
28WH020**	8/27/85	1541	11.5
30HB010**	8/27/85	1529	9.6
31WSH020**	8/27/85	1518	7.2
35GSC020**	8/27/85	1435	24.0
36LSC020**	8/27/85	1403	10.6
2BR010*	8/28/85	1603	0.40
8PR010*	8/28/85	1616	3.35
10PH010**	8/28/85	1747	48.0
16RH020*	8/28/85	1700	3.5
17RH010*	8/28/85	1650	0.40
19MH110*	8/28/85	1629	1.4
20MH140*	8/28/85	1709	1.8
23MRH010*	8/28/85	1709	14.4
27WH010*	8/28/85	1304	37.5

* Indicates freshwater stations

** Indicates estuarine stations

TABLE 58

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II TOTAL AND FECAL COLIFORM DATA

(COLONIES/100 ml)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85	8/13-14/85
RUN:	1	1	2	3	4	GEOMETRIC
<u>STATION</u>						MEAN

Buttermilk Bay Drainage Basin (11)

1RB010**	TC ¹	400	260	380	1,100	220	395
	FC ²	60	20	20	40	30	26
2BB020*		1,600	380	600	700	1,900	742
		50	20	10	40	110	31
BB030*		180	--	--	--	--	--
		<5	--	--	--	--	--
3BB040**		<10	20	10	50	70	29
		<5	<5	10	<20	30	10.3
4BB050**		<20	80	60	200	<20	61.6
		<5	<5	<5	<20	<10	5.1
5BB060**		<10	--	--	60	--	--
		<5	--	--	<5	--	--

Onset Bay Drainage Basin (12)

6GB040*		--	1,200	200	3,800	2,000	1,166
		--	90	20	80	440	89
7UP010*		Not sampled - insufficient flow					
8MC020**		--	100	5	80	20	30
		--	30	<5	40	<10	12.3
9ER030**		--	120	20	A	60	52.4
		--	20	<5	--	<10	7.2
10OB0300**		--	--	--	20	--	--
		--	--	--	<5	--	--
11OB0200**		--	--	--	20	--	--
		--	--	--	<5	--	--
12OB0400**		--	--	--	80	--	--
		--	--	--	<5	--	--

TABLE 58 (CONTINUED)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85	8/13-14/85
RUN:	1	1	2	3	4	GEOMETRIC
STATION						MEAN
<u>Agawam River Drainage Basin (10)</u>						
13AR070*	160	160	1,200	4,000	600	824
	30	10	20	200	40	36
14AR080*	20	900	1,100	5,300	1,500	1,675
	10	20	40	200	170	72
15AR090**	40	250	80	500	240	221
	40	80	30	280	110	93
<u>Wankinco River Drainage Basin (10)</u>						
16WRO060*	--	1,800	2,500	3,700	3,500	2,763
	--	140	180	400	250	224
17WRO70*	--	1,100	1,000	400	2,000	969
	--	160	140	160	150	152
18WRO100**	500	260	300	400	280	305
	140	80	100	100	160	106
<u>Weweantic River Drainage Basin (10)</u>						
19WEO110*	80	600	700	3,100	1,500	1,182
	5	20	70	260	200	92
20WEO120*	140	300	1,400	12,000	1,700	1,711
	<5	120	40	340	200	92
21WEO130**	40	100	80	300	600	195
	20	60	20	20	400	56
22WEO140**	20	--	--	30	--	--
	20	--	--	<5	--	--
<u>Sippican River Drainage Basin (10)</u>						
28SRO150*	160	1,200	2,600	3,400	300	1,336
	<5	110	40	60	<20	44.6
29SRO160*	260	400	1,300	2,000	900	754
	40	100	140	200	40	103

TABLE 58 (CONTINUED)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85	8/13-14/85
RUN:	1	1	2	3	4	GEOMETRIC
STATION						MEAN
<u>Wareham River Drainage Basin (10)</u>						
23WA0170**	200	400	60	300	400	231.7
	20	100	10	20	<20	25.2
24WA0180**	20	--	--	20	--	--
	<5	--	--	10	--	--
25WA0190**	20	--	--	40	--	--
	<5	--	--	<5	--	--
26WA0200**	<10	--	--	10	--	--
	<5	--	--	<5	--	--
27WA0210**	<10	--	--	20	--	--
	<5	--	--	<5	--	--
<u>Sippican Harbor Drainage Basin (9)</u>						
30SH0100**	--	80	--	--	--	--
	--	<5	--	--	--	--
31SH0200**	--	60	--	--	--	--
	--	<5	--	--	--	--
32SH0300**	--	10	--	--	--	--
	--	<5	--	--	--	--
33SH0400**	--	20	--	--	--	--
	--	<5	--	--	--	--
<u>Mattapoissett River Drainage Basin (8)</u>						
34MR010*	--	1,000	700	15,000	10,000	3,201
	--	90	140	560	680	263
35MR050*	--	900	1,000	5,400	800	933
	--	80	<20	1,400	160	107.7
36MR080*	--	3,100	900	2,800	2,900	2,182
	--	680	120	1,800	180	840
<u>Mattapoissett Harbor Drainage Basin (8)</u>						
37PI010*	--	4,400	4,100	900	7,000	3,265
	--	360	280	100	1,400	345
38MH030**	--	80	30	100	100	70
	--	<5	<20	80	40	18.6

TABLE 58 (CONTINUED)

DATE:	5/22/85	8/13/85	8/13/85	8/14/85	8/14/85	8/13-14/85
RUN:	1	1	2	3	4	GEOMETRIC
STATION						MEAN

Mattapoissett Harbor Drainage Basin (8) (Continued)

39MH010*	--	2,000	2,000	800	8,000	2,249
	--	140	280	100	400	199
40MH0700**	--	100	--	--	--	--
	--	<5	--	--	--	--
41MH0800**	--	20	--	--	--	--
	--	<5	--	--	--	--

* Freshwater Stations - composite samples
 ** Tidal Stations - individual grab samples
 -- No samples taken
 A - Bottle broken in transit
 TC¹ Total Coliform
 FC² Fecal Coliform

5/22/85 high tide 1029 - low tide 1542, Wings Neck
 8/13/85 high tide 0620 - low tide 1141, Wings Neck
 8/14/85 high tide 0707 - low tide 1236, Wings Neck

TABLE 59

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III TOTAL AND FECAL COLIFORM DATA

(COLONIES/100 ml)

DATE:	8/27/85		8/28/85		8/27-28/85 GEOMETRIC MEAN
	A.M.	P.M.	A.M.	P.M.	
RUN:	1	2	3	4	
STATION					
<u>Cape Cod Canal (13)</u>					
1CC020**	TC ¹	1600	--	--	--
	FC ²	40	--	--	--
<u>Phinneys Harbor Drainage Basin (14)</u>					
2BR010*		2600	2300	1600	1400
		480	80	80	40
3BR030**		900	900	200	50
		560	100	80	20
4BR050**		8000	--	--	--
		350	--	--	--
5PH030**		7000	--	--	--
		330	--	--	--
6PH060**		3800	--	--	--
		300	--	--	--
7TI020**		100	50	50	100
		5	<5	<5	<5
<u>Pocasset River Drainage Basin (14)</u>					
8PR010*		2300	2600	900	1000
		340	180	60	120
9PR040**		10000	100	6000	200
		900	80	200	20
<u>Pocasset Harbor Drainage Basin (15)</u>					
10PH010**		3700	700	300	100
		1200	200	20	40
11POH030**		4200	--	--	--
		220	--	--	--
12POH080**		7500	--	--	--
		600	--	--	--
13PP050**		200	200	100	100
		20	<5	<5	20

TABLE 59 (CONTINUED)

DATE:	8/27/85		8/28/85		8/27-28/85 GEOMETRIC MEAN
	A.M.	P.M.	A.M.	P.M.	
	1	2	3	4	
<u>STATION</u>					
	<u>Red Brook Harbor Drainage Basin (15)</u>				
14POH040**	6000	--	--	--	--
	480	--	--	--	--
15RBH030**	3000	--	--	--	--
	30	--	--	--	--
16RH020*	1100	600	100	100	285
	210	80	40	20	61
17RH010*	1000	800	200	200	423
	40	<5	<5	<5	<5
18HC010**	80	--	--	--	--
	<5	--	--	--	--
	<u>Megansett Harbor Drainage Basin (15)</u>				
19MH110*	3100	1000	900	1300	1380
	200	120	<5	120	51.8
20MH140*	3600	3800	1600	1100	2228
	600	800	320	80	333
21MH170**	5800	3000	10000	2400	4520
	90	200	4000	160	328
22MH180**	700	50	100	100	137
	90	<5	<5	<5	6.1
23MRH010*	1500	900	900	600	924
	90	80	100	60	96
24MRH020**	2000	50	400	--	--
	500	20	60	--	--
25MFC030**	800	100	200	200	238
	200	<5	20	<5	12.6
26MHO190**	--	--	150	--	--
	--	--	<5	--	--
	<u>Wild Harbor Drainage Basin (16)</u>				
27WH010*	6000	2100	900	600	1615
	700	400	180	140	290

TABLE 59 (CONTINUED)

DATE:	8/27/85		8/28/85		8/27-28/85
RUN:	A.M.	P.M.	A.M.	P.M.	GEOMETRIC
STATION	1	2	3	4	MEAN
<u>Wild Harbor Drainage Basin (16) Continued</u>					
28WH020**	4600	100	1500	400	725
	1400	<5	170	100	87.8
29WH050**	500	--	--	--	--
	100	--	--	--	--
<u>Herring Brook Drainage Basin (16)</u>					
30HB010**	500	200	300	200	278
	120	20	<5	60	24.5
<u>West Falmouth Harbor Drainage Basin (16)</u>					
31WSH020**	1700	1250	800	300	845
	800	180	160	80	207
32WFH030**	260	100	100	20	85
	110	<5	20	<5	10.8
33WFH040**	200	600	200	30	164
	90	40	<5	<5	12.3
34WH050**	100	--	--	--	--
	<5	--	--	--	--
<u>Great Sippewissett Creek Drainage Basin (16)</u>					
35GSC020**	260	200	200	20	120
	40	<5	100	<5	12.6
<u>Little Sippewissett Creek Drainage Basin (16)</u>					
36LSC020**	1200	100	500	300	366
	140	20	200	20	199
<u>Quissett Harbor Drainage Basin (16)</u>					
37QH030**	--	--	250	--	--
	--	--	20	--	--
38QH040**	--	--	100	--	--
	--	--	<5	--	--

* Freshwater Stations

** Tidal Stations

-- Not sampled

TC¹-Total Coliform

FC²-Fecal Coliform

8/27/85 high tide 0602 - low tide 1224, Wings Neck

8/28/85 high tide 0704 - low tide 1317, Wings Neck

TABLE 60

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA V OUTER BAY STATIONS

TOTAL AND FECAL COLIFORMS DATA (COLONIES/100 ml)

STATION:	42WAO400		43SHO500		44BUO300	
	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM
DATE: 8/13/85						
Time (hrs)	1532	1538	1351	1400	1158	1216
Temperature (°C)	23.5	23.3	24.2	23.5	23.2	22.5
Salinity (‰)	31.5	32.3	32.1	32.5	32.4	32.5
Depth (m)	1.0	6.7	1.0	7.4	1.0	9.3
Total Coliform	30	100	100	100	50	40
Fecal Coliform	<20	20	<20	<20	<20	<20

STATION:	45CC01		46WH008		47CL020	
	TOP	BOTTOM	TOP	BOTTOM	TOP	BOTTOM
DATE: 8/28/85						
Time (hrs)	1535	1540	1400	1405	1215	1230
Temperature (°C)	18.0	18.0	23.6	22.8	22.7	21.7
Salinity (‰)	31.9	31.9	30.8	31.3	31.4	32.3
Depth (m)	1.0	5.9	1.0	11.0	1.0	14.0
Total Coliform	7,000	1,300	1,400	--	50	600
Fecal Coliform	<5	<5	<5	--	<5	<5

-- Bottle broken

TABLE 61

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA II SUMMARY OF FLOW DATA (cfs)

LOCATION	DATE	TIME (hr)	FLOW (cfs)	AREA (ft) ²	AVG. DEPTH (ft)	AVG. VELOCITY (ft/sec)
Red Brook						
at bridge abutment	5/22/85(1)	1615	8.89	18.9	1.7	0.47
on Red Brook Road at Wareham/Bourne town line	8/14/85(2)	1315	3.34	15.0	1.5	0.22
Agawam River						
at Route 28, 75'	5/22/85	1415	24.21	29.9	1.3	0.81
below confluence of fish weir and outlet of Mill Pond, Wareham	8/14/85	0900	28.70	22.6	1.1	1.27
Wankinco River						
below Tremont nail	5/22/85	1515	39.47	38.7	1.1	1.02
factory 250' down- stream of fishway, Wareham	8/14/85	1150	17.10	19.0	0.5	0.9
Sippican River						
at County Road down- stream of bridge, Marion	5/22/85	1015	31.68	52.8	1.7	1.02
	8/13/85	1250	26.0	40.2	1.6	0.64
Weweantic River						
at Paper Mill Road	5/22/85	1200	90.00	56.0	1.8	1.61
50' upstream of bridge, Wareham	8/13/85	1440	7.78	49.5	1.6	0.24
	8/14/85	1050	12.33	51.4	1.8	0.24
Mattapoissett River						
off Tinkham Lane, Mattapoissett	8/13/85	0845	5.46	5.7	0.8	0.96

(1) 5/22/85 flow measurements employed wading rod method using Digital meter calculations and methods detailed in MDWPC, TSB Engineering Section's SOP.

(2) 8/13/85, 8/14/85 flow measurements employed wading rod method and Pygmy meter calculations and methods detailed in MDWPC, TSB Engineering Section's SOP.

TABLE 62

1985 BUZZARDS BAY WATER QUALITY SURVEY

AREA III SUMMARY OF FLOW DATA (cfs)

LOCATION	DATE	TIME (hr)	FLOW (cfs)	AREA (ft) ²	AVG. DEPTH (ft)	AVG. VELOCITY (ft/sec)
Pocasset River(1) at outlet from Mill Pond, Bourne	8/27/85	0845	2.38	0.7	0.7	3.40
Red Brook(1) at outlet from Red Brook Pond, Bourne	8/27/85	1000	2.11	1.2	1.45	1.76
Cuffs Pond(2) stream outletting from Cuffs Pond off Scraggy Neck Road, Bourne	8/27/85	1115	0.55	0.6	1.6	--

(1) Pipe method - Calculations done according to methods detailed in publication entitled, "Planning and Making Industrial Waste Surveys," compiled by Metal-Finishing Industry Action Committee, Ohio River Valley Water Sanitation Commission. 1972. 44 p.

(2) Rectangular Channel - Same as above

TABLE 63

COMMON PARAMETERS AND COLLECTION METHODS EMPLOYED
IN 1985 BUZZARDS BAY WATER QUALITY SURVEYS

STATION TYPE	PARAMETER					
	TOTAL/FECAL COLIFORM	DISSOLVED OXYGEN	WATER NUTRIENTS (A)	CHEMISTRY (B)	TOTAL METALS (C)	CHLOROPHYLL
Freshwater (FW)	Individual Grab	Individual Grab	C (1)	C (1)	C (1)	Individual Grab (6)
Intertidal (2) (Int)	Individual Grab	Individual Grab	Individual Grab	Individual Grab	Individual Grab	Individual Grab (6)
Inner Embayments (3)(IB)	Individual Grab	Individual Grab	Individual Grab	Individual Grab	Individual Grab	---
Outer Bay (OB)	Individual Grab (4)	Individual Grab (5)	Individual Grab (4)	Individual Grab (4)	Individual Grab (4)	---

COMMENTS:

- (1) Freshwater (FW) - morning and afternoon runs - below water surface composite sample
 (2) Intertidal Stations (Int) - sampled on outgoing and incoming tides - below water surface
 (3) Inner Embayment (IB) - sampled once on outgoing tide - 1 meter below water surface
 (4) Outer Bay (OB) - sampled 1 meter below water surface - 1 meter above bottom
 (5) Outer Bay - dissolved oxygen readings obtained at 2 meter intervals - see footnote (5) Hydrolab
 (6) Chlorophyll - samples once per day at surface
- A - Nutrients - NH₃-N, NO₃-N, TP, PO₄, TKN (NOTE: NO₃-N not run on Int, IB, or OB samples due to interference)
 B - Water Chemistry - BOD (FW + Int only), TS, SS, DS, chloride, specific conductance, turbidity, color, alkalinity
 C - Metals - Cu, Cd, Cr, Hg, Ni, Pb

TABLE 64

COMMON SAMPLE TREATMENT METHODS EMPLOYED AT
STATIONS IN 1985 BUZZARDS BAY WATER QUALITY SURVEYS

PARAMETER	SAMPLE VOLUME	SAMPLE CONTAINER ¹	IMMEDIATE SHIPBOARD PROCESSING AND STORAGE
Dissolved Oxygen	300 ml (2)	G (1)	MnSO ₄ ; KI: no sunlight/or (5) "in situ."
Temperature	---	- (1)	In situ recorded to nearest 0.1°C/F or (4), (5), (6).
BOD ₅	1 l (2)	G (1)	Cool 4°C
pH (Standard Units)	---	- (1)	"In situ" reading with meter (3) Record to nearest 0.1/or chill to 4°C transport to LES.
Total Alkalinity	1 l (2)	G (1)	Cool 4°C.
Specific Conductance	1 l (2)	G (1)	"In situ" reading/or cool 4°C (4)(5).
Total Solids	1 l (2)	G (1)	Cool 4°C.
Suspended Solids	1 l (2)	G (1)	Cool 4°C.
Chloride	1 l (2)	G (1)	Cool 4°C.
Total Kjeldahl-Nitrogen	500 ml (2)	G (1)	H ₂ SO ₄ , pH ≤2.0, cool 4°C.
Ammonia-Nitrogen	500 ml (2)	G (1)	H ₂ SO ₄ , pH ≤2.0, cool 4°C.
Nitrate-Nitrogen	500 ml (2)	G (1)	H ₂ SO ₄ , pH ≤2.0, cool 4°C.
Total Phosphorus	500 ml (2)	G (1)	H ₂ SO ₄ , pH ≤2.0, cool 4°C.
Orthophosphate	500 ml (2)	G (1)	H ₂ SO ₄ , pH ≤2.0, cool 4°C.
Total Coliform	200 ml (2)	G (1)	Cool 4°C .
Fecal Coliform	200 ml (2)	G (1)	Cool 4°C.
Turbidity	1 l (2)	G (1)	Cool 4°C.
Color	1 l (2)	G (1)	Cool 4°C.

¹ Polyethylene (P)
Glass (G)

TABLE 65

PARAMETERS AND TREATMENT METHODS EMPLOYED AT
SPECIFIC WATER QUALITY STATIONS IN BUZZARDS BAY

PARAMETER		SAMPLE VOLUME	SAMPLE CONTAINER	IMMEDIATE SHIPBOARD PROCESSING AND STORAGE
Cadmium	Water Column	500 ml (2)	G (1)	HNO ₃ , pH \leq 2.0, cool 4°C,
Total Chromium	Water Column	500 ml (2)	G (1)	HNO ₃ , pH \leq 2.0, cool 4°C,
Copper	Water Column	500 ml (2)	G (1)	HNO ₃ , pH \leq 2.0, cool 4°C,
Lead	Water Column	500 ml (2)	G (1)	HNO ₃ , pH \leq 2.0, cool 4°C,
Mercury	Water Column	500 ml (2)	G (1)	HNO ₃ , pH \leq 2.0, cool 4°C,
Nickel	Water Column	500 ml (2)	G (1)	HNO ₃ , pH \leq 2.0, cool 4°C
Chlorophyll	Water Surface	1 l (2)	P	Cool 4°C.
Salinity	Water Column	---	---	"In situ" reading to nearest 0.5 ppt (5).
Depth	Water Column	---	---	"In situ" reading to nearest 0.1 m (5)
Flow		---	---	(2)

¹ Polyethylene (P)
Glass (G)

TABLE 66

SAMPLING PARAMETERS AND ANALYTICAL METHODS
EMPLOYED IN 1985 BUZZARDS BAY WATER QUALITY SURVEYS

PARAMETER	METHOD	REPORTED AS	LIMITS OF DETECTION	REFERENCE	MAXIMUM HOLDING TIME
BOD ₅	5-day oxygen depletion at 20°C	mg/l BOD	---	<u>Standard Methods</u> 16th ed. sec. 412B, p418, sec. 507, p525.	48 hours
Dissolved Oxygen	Azide modification of Winkler method. 0.0375 N sodium thio- sulfate titrant, 300 ml sample	mg/l D.O.	---	<u>Standard Methods</u> 15th ed. sec. 421B	8 hours
143 pH	Electrometric, glass indicator, silver chloride reference	pH Logarithmic Units	---	<u>Standard Methods</u> 16th ed., sec. 423, p249	Analyze immediately
Turbidity	Nephelometric. Hach Turbidi- meter. Model 2100A	Nephelometric Turbidity Units	---	<u>Standard Methods</u> 15th ed., sec. 214A	48 hours
Total Alkalinity	0.02 N sulfuric acid potentio- metric titration to pH 4.5, Orion Model 701, Digital pH meter	mg/l CaCO ₃	---	<u>Standard Methods</u> 16th ed., sec. 403, p269	14 days
Suspended Solids	Filtration through standard glass fiber filter paper. Residue dried at 103-105°C. Gravimetric	mg/l S.S.	---	<u>Standard Methods</u> 16th ed., sec. 403, p269	48 hours
Total Solids	Evaporation to dryness at 103- 105°C. Gravimetric	mg/l T.S.	---	<u>Standard Methods</u> 16th ed., sec. 209C, p96	7 days
Settleable Solids	Gravimetric settling using an Imhoff cone	ml/l sett. solid	---	<u>Standard Methods</u> 15th ed., sec. 209F	48 hours
Total Dissolved Solids	Filtration through standard glass fiber filter paper. Residue dried at 180°C	mg/l T.D.S.	---	<u>Standard Methods</u>	---

TABLE 66 (CONTINUED)

SAMPLING PARAMETERS AND ANALYTICAL METHODS
EMPLOYED IN 1985 BUZZARDS BAY WATER QUALITY SURVEYS

PARAMETER	METHOD	REPORTED AS	LIMITS OF DETECTION	REFERENCE	MAXIMUM HOLDING TIME
Total Kjeldahl-Nitrogen	Acid digestion using Technical BD-40 Block Digester. Colorimetric analysis (reaction of ammonia, sodium salicylate, sodium nitroprusside, and sodium hypochlorite in buffered alkaline medium) using Technicon Auto Analyzer II	mg/l TKN	0.05 mg/l	EPA 1979, p351.2	28 days
Ammonia-Nitrogen	Phenate method, automated. Colorimetric analysis using Technicon Auto Analyzer II	mg/l NH ₃ -N	---	<u>Standard Methods</u> 15th ed., sec. 417F	28 days
Nitrate-Nitrogen	Hydrazine reduction method, automated. Colorimetric analysis using Technicon Auto Analyzer II	mg/l NO ₃ -N	---	EPA 1979, p353.1	48 hours
Totalphosphate	Acid digestion using Technicon BD-40 Block Digester. Ascorbic acid reduction colorimetric method using Technicon Auto Analyzer II	mg/l P	0.02 mg/l	EPA 1979, p365.4	28 days
Total Coliform	Membrane filter technique	Total coliforms/ 100 ml	---	<u>Standard Methods</u> 15th ed., sec. 908C	6 hours
Fecal Coliform	Membrane filter technique	Fecal coliforms/ 100 ml	---	<u>Standard Methods</u> 15th ed., sec. 908C	6 hours

TABLE 66 (CONTINUED)

SAMPLING PARAMETERS AND ANALYTICAL METHODS
EMPLOYED IN 1985 BUZZARDS BAY WATER QUALITY SURVEYS

PARAMETER	METHOD	REPORTED AS	LIMITS OF DETECTION	REFERENCE	MAXIMUM HOLDING TIME
Nickel (Water)	AA spectro air-acetylene flame.	mg/l	0.03 mg/l	<u>Standard Methods</u> 15th ed., sec. 303A	6 months
Flow	Wading Rod Pygmy Current Meter	CFS	---	Gurly No. 625 Pygmy Current Meter, Troy, NY 12181	---
Chlorophyll	Spectrophotometry	mg/m ³	---	<u>Standard Methods</u> 15th ed., sec. 1002	24 hours
145 Copper	AA spectro air-acetylene flame	mg/l	0.02 mg/l	<u>Standard Methods</u> 15th ed., sec. 313A	6 months
Mercury	Cold vapor manual	mg/l	0.0002 mg/l	<u>Standard Methods</u> 15th ed., sec. 320A	6 months
Lead	AA spectro air-acetylene flame	mg/l	0.06 mg/l	<u>Standard Methods</u> 15th ed., sec. 303A	6 months

TABLE 66 (CONTINUED)

SAMPLING PARAMETERS AND ANALYTICAL METHODS
EMPLOYED IN 1985 BUZZARDS BAY WATER QUALITY SURVEYS

PARAMETER	METHOD	REPORTED AS	LIMITS OF DETECTION	REFERENCE	MAXIMUM HOLDING TIME
Conductivity	Wheatstone Bridge type meter. Yellow springs Instrument conductivity bridge, Model 31	umhos/cm	---	<u>Standard Methods</u> 15th ed., sec. 205	28 days
Color	Visual comparison of sample with known concentrations of colored solutions	Color Units	---	<u>Standard Methods</u> 15th ed., sec. 204A	48 hours
Chloride	Argentometric (titration with silver nitrate)	mg/l Cl	---	<u>Standard Methods</u> 15th ed., sec. 407A, p287	28 days 28 days
Temperature	"In situ" reading	C°/°F	---	Omega dial temp. thermo- meter models K-79-8, K-79-7. Omega Engineering Inc. Stamford, CT.	Analyze immediately
Orthophosphorus	Ascorbic acid method	mg/l as P	0.01 mg/l	<u>Standard Methods</u> 16th ed., sec. 424F, p448	48 hours
Cadmium (Water)	AA spectro air-acetylene flame.	mg/l	0.02 mg/l	<u>Standard Methods</u> 15th ed., sec. 303A	6 months
Total Chromium (Water)	AA spectro air-acetylene flame.	mg/l	0.02 mg/l	<u>Standard Methods</u> 15th ed., sec. 303A	6 months

*Dry weight

FOOTNOTES (TABLES 64-66)

1. Required containers, preservation techniques, and holding time, per Table II 40 CFR Part 136.
2. Massachusetts Division of Water Pollution Control, Technical Services Branch, Engineering Section, Standard Operating Procedures.
3. Service and Calibration Manual Model 211 Orion Field pH meter. Orion Research Incorporated, 840 Memorial Drive, Cambridge, MA.
4. Yellow Springs Instrument, Model 33 S-C-T meter and probe. Yellow Spring Instrument Co., Inc. Yellow Springs, Ohio 45387.
5. Hydrolab Surveyor II, Model SVR2-SU sonde unit, Model SVR2-DV Digital read out. Hydrolab Corp., P.O. Box 50116, Austin TX 78763.

