BUZZARDS BAY: A Celebration

A Gala Time was guaranteed for all!! On Saturday, September 14, 1985, the Citizens Advisory Committee of the Buzzards Bay Project sponsored a special event, Buzzards Bay: A Celebration to bring the Project to the attention of the public throughout the region and to bring together representatives from federal, state and local agencies, environmental organizations, the State Legislature, our Congressman and Senator and other concerned citizens.

The Celebration, beginning with a press conference at the State Pier in New Bedford, was covered by the local media including radio, television and newspapers. Speakers at the press conference were Senator Edward Kennedy; Congressman Gerry Studds; Michael Deland, Regional Administrator for the EPA; James Hoyte, Secretary for Environmental Affairs for the Commonwealth of Massachusetts; New Bedford Mayor Brian Lawler and Henry Longest, Acting Administrator, EPA Office of Water. Moderator for the press conference was Richard Delaney, Assistant Secretary for Environmental Affairs and Director of Massachusetts Coastal Zone Management.

Following the press conference, representatives of local, regional and federal agencies participating in the Buzzards Bay Project boarded the Tabor Boy for a cruise from New Bedford Harbor to Tabor Academy in Marion. The Tabor Boy, under both sail and power, with a crew of Tabor Academy students and faculty, was a majestic sight cruising the waters of the Bay with other sail and power boats. The Tabor Boy and the facilities of Tabor Academy were made available for the Celebration by Academy President Peter M. Webster; Tinker Saltonstall, Director of Student/Community Activities and William Dawson, Treasurer.
At Tabor Academy, 125 guests heard Congressman Studds, EPA Regional Administrator Michael Deland and CAC Chairman Edwin H.B. (Ted) Pratt speak on the overall objectives of the Project and the role of the Citizens Advisory Committee. Bruce Tripp, Massachusetts Coordinator of Research and Monitoring in Buzzards Bay, spoke about the diversity of research projects which focus on Buzzards Bay water quality issues.

Several exhibits prepared by various organizations were on display in Tabor's Gymnasium. A lobster/clam boil was prepared by the Tabor Academy dining staff and served to Celebration guests on the lawn overlooking Marion Harbor. While viewing the displays and enjoying dinner, the participants shared ideas and discussed their common problems. Many concluded that solutions to local issues will require a holistic view of the Buzzards Bay region and this perspective is encouraged by the Project.

A wonderful time was had by all thanks to Ted Pratt and the Citizens Advisory Committee. The staff and interns from the Lloyd Center for Environmental Studies made the arrangements for the Celebration and they are grateful for the advice and assistance readily offered by Tabor Academy; Dr. Wendy Wiltse, EPA Region I, Mr. Bruce Tripp, Mass. EOEA; the City of New Bedford and the Zeiterion Theatre.
WHAT WE ARE

Northern Buzzards Bay

We recognize that Buzzards Bay is an important resource to Massachusetts -- important for its economic, recreational and aesthetic value. The economic resources of the Bay range from the harvest of its rich fisheries to its use as a transit route for the New Bedford fishing fleet and for shipping through the Cape Cod Canal. Its heavily indented coastline is uniquely beautiful and provides superb opportunities for fishing, bathing, and boating. It offers educational and research opportunities to the academic institutions located on its shores.

Congress also recognizes the unique value of Buzzards Bay and selected the Bay as one of four estuaries in the country to be studied under a special $4 million appropriation in 1985. The Buzzards Bay Project, sponsored by the EPA and jointly managed by EPA and the Massachusetts Executive Office of Environmental Affairs (EOEA), received $400,000 from this Congressional appropriation in 1985, and funding is expected to continue for several years. The Buzzards Bay Project will enhance the knowledge of local and state agencies so that they may better understand the sources and effects of contamination in Buzzards Bay. Initial efforts focus on the impact of nutrient and bacterial contamination.

The primary goal of the Buzzards Bay Project is to protect water quality and the health of living resources in the Bay. Through a team effort by local, state and federal agencies, the academic community, and local interest groups, we are beginning to develop an environmental master plan that will insure an acceptable and sustainable level of environmental quality for Buzzards Bay.

The various uses of Buzzards Bay are often in conflict. For example, the harbors where we swim and harvest shellfish are also sites of discharge for residential and industrial wastewater. The result of a long history of industrial discharge on the western shores of Buzzards Bay is highly contaminated sediment. Along the eastern shore, burgeoning development that has made Barnstable County the fastest growing county in New England carries with it a price in terms of lowered water quality. Industrial pollution and accelerated residential development combine to threaten the environmental and economic health of Buzzards Bay.

The Buzzards Bay Project is working to identify resource management problems in the region, to investigate the causes of these problems, and to recommend actions that will protect our valuable resources from further environmental degradation. The project has focused on two major issues during the first year: shellfish closures and toxic contamination.

The number of shellfish beds closed to harvesting as a result of contamination by coliform bacteria has increased dramatically during the last few years. The Buzzards Bay Project has funded a case study of the shellfish closure problem in Buttermilk Bay, located in the towns of Bourne and Wareham. The study will identify the sources of bacterial contamination and the transport of coliforms from the source to the shellfish. Based on the results of this work we will help the towns develop and implement a clean-up program. Experience gained from the Buttermilk Bay case study will be applied to other problem areas in Buzzards Bay.

The export of toxic contaminants from the Acushnet River Estuary to Buzzards Bay is also being investigated through studies funded by the Project and by other agencies. Fish, lobster, and quahogs throughout the Bay are being surveyed to insure that levels of toxic contamination do not exceed standards for safe consumption by humans. The health of fish in the Bay is also being assessed by a study of disease incidence in flounder and lobster.

A Bay-wide data base of technical information is being assembled and will include all information from previous studies as well as new information resulting from current research. This data base will be used by state and local decision-makers as they plan for the Bay’s future. Environmental decisions are made at both the state and local levels of government, and the complexities of environmental issues mandate the use of more sophisticated technical information. This information will be made available to the appropriate agencies in the form of model regulations and bylaws.

We are optimistic that the continued health of Buzzards Bay and its resources can be insured for future generations. Considerable control over environmental quality lies with individual citizens. We seek your support and welcome your suggestions.

Michael R. Deland
Administrator
EPA Region I

James S. Hoyte
Secretary
Mass. EOEA
WHOWEARE

A PROFILE OF
BUZZARDS BAY

FACTS AND FIGURES

Buzzards Bay is...

210 miles of shoreline, 30 miles long and 10 miles wide
30 approved discharges into the Bay and its tributaries from sewage treatment plants and industry
4,300 slips and moorings for recreation
11 miles of beaches
20,000 vessels per year in transit to and from the Cape Cod Canal
19,000,000 tons of commercial cargo including most of the No. 2 fuel oil for New England
Home of the New Bedford fishing fleet with largest U.S. catch in terms of dollar value
Part of the Cape Cod and the Islands Ocean Sanctuary designated by the Commonwealth of Massachusetts
Extensive shellfish bed closures, 17,000 acres in 1984
Home of important research and education facilities such as the Marine Biological Laboratory, Massachusetts Maritime Academy, Southeastern Massachusetts University, Woods Hole Oceanographic Institution
Home of a diversity of commercially and recreationally important fish species including winter flounder, scup, tautog, bluefish and striped bass

Cities and Towns Bordering Buzzards Bay

BOURNE       MARION
DARTMOUTH    MATTAPOOSETT
FAIRHAVEN     NEW BEDFORD
FALMOUTH      WAREHAM
GOSNOLD       WESTPORT

Additional Towns Within Drainage Basins

ACUSHNET      MIDDLEBOROUGH
CARVER        PLYMOUTH
FALL RIVER    ROCHESTER
FREETOWN      SANDWICH
MASHPEE

Shellfish Resources of Buzzards Bay

Harvested Shellfish Resources [1984 unless otherwise noted]
Landings [in bushels]

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Bourne</td>
<td>222</td>
<td>2030</td>
<td>81</td>
<td>1800</td>
<td>3048</td>
<td>650</td>
<td>--</td>
<td>400</td>
<td>--</td>
<td>137</td>
<td>335</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Cuttyhunk</td>
<td>88</td>
<td>78</td>
<td>7</td>
<td>1000</td>
<td>378</td>
<td>50</td>
<td>--</td>
<td>150</td>
<td>--</td>
<td>100</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dartmouth</td>
<td>16</td>
<td>480</td>
<td>103</td>
<td>?</td>
<td>50000</td>
<td>--</td>
<td>295</td>
<td>800</td>
<td>3000</td>
<td>--</td>
<td>1200</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Fairhaven</td>
<td>11</td>
<td>1000</td>
<td>123</td>
<td>2500</td>
<td>6690</td>
<td>212</td>
<td>--</td>
<td>250</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Falmouth</td>
<td>102</td>
<td>2779</td>
<td>121</td>
<td>3040</td>
<td>4500</td>
<td>1112</td>
<td>1158</td>
<td>--</td>
<td>--</td>
<td>112</td>
<td>200</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marion</td>
<td>33</td>
<td>561</td>
<td>12</td>
<td>85</td>
<td>188</td>
<td>31</td>
<td>--</td>
<td>61</td>
<td>--</td>
<td>12</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mattapooseett</td>
<td>14</td>
<td>750</td>
<td>1</td>
<td>520</td>
<td>--</td>
<td>75</td>
<td>--</td>
<td>400</td>
<td>--</td>
<td>200</td>
<td>300</td>
<td>Conch [Whelk] Com. 1000 Rec. 1000</td>
<td></td>
</tr>
<tr>
<td>New Bedford</td>
<td>--</td>
<td>8</td>
<td>4</td>
<td>--</td>
<td>2249</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Wareham</td>
<td>413</td>
<td>1772</td>
<td>41</td>
<td>DATA NOT AVAILABLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Westport</td>
<td>35</td>
<td>727</td>
<td>87</td>
<td>3500</td>
<td>10000</td>
<td>318</td>
<td>138</td>
<td>--</td>
<td>--</td>
<td>217</td>
<td>1200</td>
<td>Blue Mussels Com. 105 Rec. 144</td>
<td></td>
</tr>
</tbody>
</table>

Source: Massachusetts Division of Marine Fisheries, 1985
Policy decisions, project management, citizen involvement and technical advice are all necessary components of a successful Buzzards Bay Project. To bring into the process the variety of interests, the diversity of expertise and the numerous organizations, perspectives and agendas, the Project has organized an arrangement of four committees to bring together people concerned with differing aspects of a comprehensive estuarine management program. Each of these committees has a role that interrelates with other Committees so that Project plans can be reviewed and evaluated in a systematic manner.

**MANAGEMENT STRUCTURE**

**POLICY COMMITTEE**

**MANAGEMENT COMMITTEE**

**TECHNICAL ADVISORY COMMITTEE**

**CITIZEN ADVISORY COMMITTEE**

### Policy Committee

The Policy Committee will set the overall policy of the Buzzards Bay project and ensure that a coordinated federal-state effort is made to address resource management decisions in Buzzards Bay.

- **Michael R. Deland**
  - Regional Administrator
  - Region I
  - U.S. Environmental Protection Agency

- **James S. Hoyte**
  - Secretary
  - Executive Office of Environmental Affairs Commonwealth of Mass.

### Management Committee

The Management Committee directs program activities for the Buzzards Bay Project. It formulates a long-range strategy for the management of Bay resources and develops annual workplans for research and monitoring. Membership includes a representative from each of the state and federal agencies or regional planning commissions that have a responsibility for coastal environmental quality in and around the Bay as well as the Chairman of the Citizens and Technical Advisory Committees. Members, in alphabetical order, include:

- **Mr. David A. Fierra**, Chairman
  - U.S. EPA Region I

- **Mr. Leigh Bridges**
  - Massachusetts Department of Fish, Wildlife and Recreational Vehicles

- **Dr. Judith M. Capuzzo**
  - Chair, Technical Advisory Committee

- **Mr. Jack Clarke**
  - Cape Cod Planning and Economic Development Council

- **Mr. Richard Delaney**
  - Office of Coastal Zone Management

- **Ms. Meriel Hardin**
  - Department of Environmental Quality Engineering

- **Dr. Russell Isaac**
  - Department of Environmental Quality Engineering
  - DWPC/TSB

- **Dr. Jack Pearce**
  - National Oceanographic and Atmospheric Association

- **Mr. Edwin H.B. Pratt**
  - Chair, Citizens Advisory Committee

- **Mr. Steven Reckhow**
  - Southeast Regional Planning and Economic Development District

### Technical Advisory Committee

This Committee serves as a forum for technical expertise on Buzzards Bay and advises the Management Committee on technical issues. Membership for the Technical Advisory Committee is drawn from the several academic institutions and agencies around Buzzards Bay which are active in research, monitoring and resource assessment. The Technical Advisory Committee reviews annual workplans, research proposals and research results as well as providing technical direction to projects. Members, in alphabetical order, include:

- **Dr. Judith Gapuzzo**, Chairman
  - Woods Hole Oceanographic Institute

- **Mr. Paul T. Anderson**
  - Department of Quality Engineering
  - Southeast Region

- **Mr. Allan Beck**, Director
  - EPA Narragansett Laboratory

- **Mr. Steve Bliven**
  - Office of Coastal Zone Management

- **Mr. Leigh Bridges**
  - Massachusetts Division of Marine Fisheries

- **Dr. Anthony Calabraese**
  - National Marine Fisheries Service

- **Mr. Alan Cooperman**
  - Department of Quality Engineering

- **Dr. Karl Deubert**
  - University of Massachusetts
  - Cranberry Experiment Station

- **Dr. John Farrington**
  - Woods Hole Oceanographic Institute

- **Mr. Larry Gil**
  - Department of Environmental Quality Engineering - Division of Water Pollution Control - TSB

- **Dr. Alan Lee Hankin**, Executive Director
  - Katherine Nordell Lloyd Center for Environmental Studies, Inc.

- **Mr. John Hickey**
  - Massachusetts Department of Marine Fisheries

- **Dr. John Hobble**
  - Marine Biological Laboratory

- **Dr. Russell Isaac**
  - Department of Quality Engineering
  - DWPC/TSB

- **Dr. Francis O'Brien**
  - Southeastern Massachusetts University

- **Dr. Henry Parker**
  - Southeastern Massachusetts University

- **Dr. Jack Pearse**
  - National Marine Fisheries Service

- **Ms. Jackie Prince**
  - U.S. EPA Region I

- **Mr. Ira Somerset**
  - Food and Drug Administration

- **Mr. Bruce Tripp**
  - Massachusetts Executive Office of Environmental Affairs

- **Dr. Wendy Wiltse**
  - U.S. EPA Region I
"Massachusetts Marine Fisheries - Assessment at Mid-Decade" Division of Marine Fisheries with help from the Office of Coastal Zone Management and Department of Environmental Quality Engineering

The Division of Marine Fisheries is furthering its efforts to reverse the trend of continuing adverse impacts on the Commonwealth’s marine resources. Your input is essential, therefore, please plan to attend one of the public hearings listed below:

**Tuesday**
**January 7**
**7 - 10 pm**
Whaling Museum Auditorium
New Bedford

**Thursday**
**January 9**
**7 - 10 pm**
Marshfield Town Hall

**Tuesday**
**January 7**
**7 - 10 pm**
Whaling Museum
Auditorium
New Bedford

**Thursday**
**January 9**
**7 - 10 pm**
Marshfield Town Hall

**Sunday**
**January 12**
**1:30 pm**
Weekly Walk - Salt Marsh In Winter, Lloyd Center for Environmental Studies
430 Potomska Road South Dartmouth
An interpretive walk on the ecology of salt marshes in winter. Free and open to the public. Advanced registration requested. Call Lloyd Center at 617-990-0505.

**Thursday**
**January 16**
**7 - 10 pm**
Cape Cod Community College Science Building, Hall A Barnstable

**Wednesday**
**January 22**
**7 - 10 pm**
Gloucester City Hall

**Sunday**
**January 26**
**7 - 10 pm**
Weekly Walk - Seals of Southeastern Massachusetts Lloyd Center for Environmental Studies
430 Potomska Road South Dartmouth
An interpretive walk on the species and identification of the seals found in Buzzards Bay in the Dartmouth and Westport areas. Field identification will be emphasized. Free and open to the public. Advanced registration requested. Call Lloyd Center at 617-990-0505.

**Wednesday**
**January 29**
**10 am - 4 pm**
Gardner Auditorium State House Boston
For further information contact Philip Coates or David Pierce at 727-3193
# Events

## Around or About Buzzards Bay

**M A R C H**

| Wednesday | Strategies for Aquaculture Development in Massachusetts  
March 12 | Southeastern Massachusetts University  
North Dartmouth  
and  
Thursday | March 13 |
---|---|---|---|
| Co-sponsored with the Massachusetts Executive Office of Economic Affairs. This conference will gather together key parties from the private sector, government agencies and academic/research institutions who are interested in aquaculture in Massachusetts. A preliminary agenda outline is as follows below: |

<table>
<thead>
<tr>
<th>AM</th>
<th>12</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wednesday</strong></td>
<td><strong>Thursday</strong></td>
<td></td>
</tr>
<tr>
<td>March 12</td>
<td>March 13</td>
<td></td>
</tr>
<tr>
<td>Aquaculture: Global Perspectives - Four invited speakers will present case studies of selected aquaculture ventures outside of the U.S.</td>
<td>Aquaculture: New England and Massachusetts Perspectives - Four invited speakers will present case histories of New England/Massachusetts aquaculture ventures.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel Discussion: Planning for the Future of Aquaculture in Massachusetts Panelists will present industrial, socio-legal, research and state and local government perspectives.</td>
</tr>
</tbody>
</table>

For further information contact Dr. Henry S. Parker, Biology Department, Southeastern Massachusetts University, North Dartmouth, MA 02747, 617-999-8211

TO HAVE YOUR EVENT LISTED IN BAY EVENTS CONTACT DR. ALAN HANKIN, LLOYD CENTER FOR ENVIRONMENTAL STUDIES, 430 POTOMSKA ROAD, SOUTH DARTMOUTH, MA 02748. THIS NEWSLETTER IS PUBLISHED BI-MONTHLY. ITEMS FOR INCLUSION IN THE CALENDAR MUST BE RECEIVED TWO MONTHS IN ADVANCE OF THE PROGRAM DATE.
BUZZARDS BAY PROJECT
FY 1985 AWARDS FOR RESEARCH AND MONITORING

The U.S. Environmental Protection Agency has initiated a $400,000 federally financed study of water quality in Buzzards Bay. The Project focuses on the problems of bacterial contamination of shellfish beds and toxic contamination of fish and shellfish in the Bay. The Project is a joint effort of the Massachusetts Executive Office of Environmental Affairs and the U.S. EPA Region I. Research work has been divided into four components and the Management Committee selected research and monitoring tasks for funding in fiscal year 1985.

Key Issues
1. Long term risks of toxic contaminants to human health and to the productivity of fish and shellfish.
2. Closure of shellfish beds due to coliform contamination including: adequacy of the standards to protect public health; the most important sources of coliform bacteria; prevention of contamination
3. Criteria for assessing the general condition of the Bay and long-term trends in water quality and fisheries resources.

Goals for 1985
1. Review historical data to assess the conditions of water and biota quality in the bay.
2. Address the problem of shellfish closures through a case study of Buttermilk Bay. Determine the importance of various coliform sources.
3. In cooperation with the Superfund assessment, determine the extend of environmental and public health risks posed by contamination in the Acushnet River Estuary.

Funded Projects in Fiscal Year 1985

I. Compilation and Synthesis of Existing Data for Buzzards Bay:
   A. Shellfish in Buzzards Bay: A Resource Assessment ($5,000)
      Principal Investigator: Ms. Merryl Alber
      Boston University Marine Program
      Marine Biological Laboratory
      Woods Hole
      Project Description: The objective of this project is to determine the extent and utilization of shellfish resources in Buzzards Bay by compiling and evaluating catch data for all economically important shellfish (soft shelled clams, quahogs, scallops, oysters). To assess the reliability of the reported data, a more intensive survey of Buzzards Bay will be undertaken including sampling shellfish beds, interviewing fishermen, and working with shellfish officers to evaluate current stock assessment procedures. The information will be formatted to input into the Buzzards Bay data base.
   B. Finfish Resources of Buzzards Bay ($13,680)
      Principal Investigators: Dr. Sanford Moss and Dr. James G. Hoff
      Biology Department
      Southeastern Massachusetts University, North Dartmouth
      Project Description: Buzzards Bay’s waters have been out of bounds to traditional fishing since the late 19th Century. Therefore, qualitative and quantitative records of fish occurrences in the Bay are confined to historic commercial catch records along with data of agencies operating on the Bay. This project will compile available information into a single finfish data base that can: a) uncover seasonal and longer term patterns and trends of the Bay’s use by finfish; b) begin an assessment of the value of finfish to the Bay; c) provide finfish data for a comprehensive ecological analysis of the Bay; d) allow analyses of past changes and provide a baseline against which changes can be compared; e) identify aspects of finfish resources that require further research.
   C. Compilation and Summary of Selected Buzzards Bay Historical Data ($46,324)

Principal Investigator: Dr. Betsy Brown
Battelle New England Marine Research Laboratory, Duxbury

Project Description: This project is designed to compile and assess technical information regarding Buzzards Bay. One of the primary objectives will be to conduct a preliminary evaluation of available literature and data sets in the following topic areas: a) toxic substances in organisms and sediments, b) water quality and nutrients, c) lobster landings, and d) ongoing research. Literature and data sets will be evaluated in order to prioritize the data that will be eventually incorporated into the national estuarine data base. The second objective of this project will be to provide an overview of the research completed and the data gaps that still exist in the topic area.

D. Baseline Mapping of Buzzards Bay ($10,000)
   Principal Investigator: Dr. Alan Hankin
   Lloyd Center for Environmental Studies, South Dartmouth

Project Description: Maps of portions of Buzzards Bay have been prepared by various agencies, research organizations and local governments. A review of these maps will be made to compile existing map resources. Upon completion of the review, two types of maps will be prepared: a baseline map of the entire bay with all drainage areas included, and a map of each drainage basin and estuary system which will be of use to resource managers, local and regional agency staff and research institutions.

E. Inventory of Local Regulation Pertaining to Water Quality in Buzzards Bay ($10,000)
   Principal Investigator: Steve Reckhow
   Southeastern Regional Planning and Economic Development District
   Taunton

Project Description: A compilation and comparison will be made of local zoning, health, sewer use, shellfish, herring, harbor master and wetlands regulations from all towns throughout Buzzards Bay. These regulations will be prepared for review and inclusion as a component of a workshop in the public participation program.

8
II. Studies of Coliform Contamination In Shellfish Beds

A. Bacteriological Monitoring of Buttermilk Bay ($32,380)

Principal Investigator: George Heufelder
Barnstable County Health and Environmental Department
Barnstable

Project Description: The purpose of the study is to locate and quantify coliform inputs to Buttermilk Bay, including septic systems, stormwater runoff, drainage, wildlife and recreational marine craft. The relative contribution of each of these sources will be evaluated and information relative to the public health significance of each contribution will be compiled. A goal of the project is to develop and evaluate methodologies for location of coliform inputs in embayments. This part of the Buttermilk Bay study is being done in conjunction with Boston University.

B. Sources Distribution and Significance of Colliforms and Pollutants in Buttermilk Bay: A Model Study ($73,585)

Principal Investigators: Dr. Ivan Vallela
Boston University Marine Program
Woods Hole
Drs. Duncan Fitzgerald,
Christopher Baldwin and
D. Caldwell
Department of Geology
Boston University, Boston

Project Description: This project will study, in cooperation with Barnstable County Health Department, loadings of nutrients and bacteria from septic systems, groundwater, wildlife, storm systems and other point sources into Buttermilk Bay. Additional studies will include hydrology, an assessment of ground water flow and recharge and hydrography and circulation related to wind and tidal systems. A quantitative model of bacterial transfer mechanisms from pollution sources to shellfish beds will be prepared. One goal of this project will be to prepare an analytical scheme which will form the basis for investigations of other embayments.

III. Assessment of Toxic Contamination in Buzzards Bay

A. PCB Monitoring and Disease Research ($37,400)

Principal Investigator: Leigh Bridges
Massachusetts Division of Marine Fisheries, Boston

Project Description: A survey will be made of PCB concentrations in tissues of lobster, shellfish, and winter flounder throughout Buzzards Bay to define potential fishery closure limits. The incidence of external diseases and liver abnormalities in finfish and lobster will be assessed and compared with incidences found elsewhere.

B. Determination of Edible Tissue/Whole Body PCB Ratios for PCB Contaminated Winter Flounder and Lobster in New Bedford Harbor ($29,632)

Principal Investigator: Richard McGrath
Battelle New England Marine Research Laboratory, Duxbury

Project Description: This project supplements EPA Superfund studies in the Acushnet River Estuary and is founded in part by Superfund. Three size classes of winter flounder and lobster will be analyzed for four PCB pseudocomponents and three heavy metals and ratios will be determined.

C. Cooperative Agreement for Buzzards Bay Assessment Studies ($70,563)

Principal Investigator: Kenneth Hagg
Massachusetts Department of Environmental Quality Engineering
Boston

Project Description: Analysis of heavy metal contamination will be made on clams, lobster and winter flounder collected by the Division of Marine Fisheries for their PCB analyses. Sediments in the Bay will be surveyed for concentrations of PCB's, PAH's and heavy metals. A preliminary assessment will be made of chemical inputs to embayments from cranberry bogs. Other studies are related to bacterial contamination of shellfish, including a comparison of microbial indicators as measures of public health risk and a coliform survey of the northern part of the Buzzards Bay drainage basin.

IV. Public Education and Participation

A. Public Education/Information Program ($35,000)

Principal Investigator: Dr. Alan Hankin
Lloyd Center for Environmental Studies, South Dartmouth

Project Description: The Lloyd Center will provide support and coordination for the Citizens Advisory Committee activities including regular meetings, public programs and special workshops and gatherings related to Project objectives and outcome. A bi-monthly Newsletter and an Annual Report will be prepared by the Center, and will be distributed throughout the Buzzards Bay area. A series of public workshops and presentations will be made around the Bay to provide information and to encourage local involvement.
The Citizens Advisory Committee (CAC) is made up of representatives of local and regional government, elected officials, local resource managers (shellfish officers, harbormasters, etc.), educational institutions, industry and concerned citizens. The Committee organizes and sponsors public information programs and workshops. The Committee sponsored the Buzzards Bay Celebration in September to announce the inauguration of the Project. The Committee also serves as a conduit for public concerns to the Management Committee regarding Bay Resources. Programs and projects of the CAC are developed in conjunction with the Management Committee and with the assistance of the Lloyd Center. Members, in alphabetical order, include:

* Edwin H.B. Pratt - Chairman
  Marion

* Steve Bliven
  Dartmouth

Brad Bourque, Shellfish Constable
New Bedford

* Leo Byrnes
  Centerville

James Civilianski, Selectman
Bourne

Priscilla Chapman, Sierra Club
Boston

Jack Clarke
Cape Cod Planning and
Economic Development Council
Barnstable

* Steve Collings
  Commonwealth Electric
  Wareham

* Robert Cummings
  Rochester

Jack Donahue
Pocasset

Jere Downing
Ocean Spray Cranberry, Inc.
Plymouth

Richard Eisenman, Harbormaster
Falmouth

* Tom Fantozzi, Board of Health
  Bourne

* Bill Frantz
  Ocean Spray
  Plymouth

Mike Gagne, Conservation
Inspector
Dartmouth

Arthur Gaines
Woods Hole Oceanographic
Institute

* George Hampson
  Falmouth

* Alan Lee Hankin
  Lloyd Center for Environmental
  Studies
  Dartmouth

Elizabeth Henry
Pocasset

Martin Himmelfarb, Esq.
Boston

Joan Hubner
Buzzards Bay

George Jennings
Marine Resource Committee
Marion

David Kan
Massachusetts Maritime Academy
Buzzards Bay

William Kerfoot
Association for Preservation of
Cape Cod
Falmouth

Andrea Langhauser
Conservation Commission
Falmouth

* Burke Limeburner
  Massachusetts Shellfish
  Officers Assoc.
  Bourne

Chris Makepeace
Cranberry Growers Association
Wareham

Bill Nicholson
Mattapoisett

Marie Oliva
Selectman
Bourne

* Jeff Osuch
  Board of Health
  Fairhaven

* Christopher Percy
  The Sounds Conservancy, Inc.
  Groton, CT

Wayne Perry
Health Department Laboratory
New Bedford

Katherine Preston
Westport River Defense Fund
Westport

* Steve Reckhow
  SRPEDD,
  Taunton

* David Roach
  Shellfish Officer
  Westport

Robert Sheehy
Harbormaster
Wareham

Gail Scott Sleeman
Dartmouth

* Katherine Kirk Stern
  Board of Health
  Dartmouth

William Stormeyer
Red Top Sporting Goods
Buzzards Bay

Roy Tate, President
Massachusetts Lobsterman's
Association
Scituate

* Bruce Tripp
  Massachusetts Executive Office
  of Environmental Affairs
  Boston

* Carl Wakefield
  Wareham

Dorothy B. Wilson
Buzzards Bay

* Wendy Wiltse
  U.S. EPA Region I
  Boston

* Steering Committee
ABOUT THE BAY
Source of Information
On Buzzards Bay - Libraries

Marine Biological Laboratory, Woods Hole
Hours: 24 hours, daily (with permission)

University of Rhode Island Library
Hours: Weekdays 8:00 AM - 12:00 Midnight
       Saturday 10:00 AM - 5:00 PM
       Sunday 1:00 PM - 12:00 Midnight

University of Rhode Island, Graduate School of Oceanography
Hours: Weekdays 8:30 AM -12:00 Midnight
       Saturday 9:00 AM - 5:00 PM
       Sunday 2:00 PM - 12:00 Midnight

Southeastern Massachusetts University Library
Hours: Monday - Thursday 8:30 AM - 11:00 PM
       Friday 8:30 AM - 5:00 PM
       Saturday 8:30 AM - 11:00 PM
       Sunday 11:00 AM - 11:00 PM

Lloyd Center for Environmental Studies
Hours: Tuesday - Sunday 9:00 AM - 5:00 PM

NOAA-NMFS Library, Woods Hole - 548-5123

Most Town Libraries also have a wealth of local and regional information about the Bay including but not limited to settlement, historical uses of the Bay and information about local resources and resource use.

An extensive Bibliography of scientific work on Buzzards Bay has been prepared by The Coastal Research Center, Woods Hole Oceanographic Institution. Requests for copies of the Bibliography or additional information should be addressed to Bruce Tripp, Coastal Research Center, Woods Hole Oceanographic Institution, Woods Hole, MA 02543.

OTHER ACTIVITIES
AND PROGRAMS AROUND THE BAY

By Dr. Judith M. Capuzzo, Chairman, Technical Advisory Committee

The Coastal Research Center (CRC) of Woods Hole Oceanographic Institution, in cooperation with colleagues of the U.S. Geological Survey, Boston University Marine Program, Marine Biological Laboratory’s Ecosystems Center and Massachusetts state agencies, initiated a Buzzards Bay Study as one of its first projects. A major emphasis has been the severe PCB pollution problem in the Acushnet River Estuary - New Bedford Harbor area. We have studied this problem with support from Sea Grant, U.S. EPA Mussel Watch Program and the Woods Hole Oceanographic Institution-Coastal Research Center.

Briefly, two electrical component manufacturing facilities discharged PCB's into the harbor area over the past two or three decades. Our measurement of PCB's in cores of surface sediments coupled with measurements taken by state agencies has provided a rough estimate of about 110 tons of PCB's in the upper 50 cm of inner harbor sediments. Thus, PCB loading in the inner harbor alone is about equal to the PCB loading of sediments in the upper Hudson River case that has been officially recognized as a severe PCB pollution problem by the state of New York and U.S. government. To protect public health, several portions of New Bedford Harbor have been partially or completely closed to fishing.

The New Bedford Harbor area was designated as an EPA Superfund site in June, 1982. Region I of the EPA has begun to develop a remedial action master plan and researchers association with CRC have contributed to that process by supplying data and by commenting on the early drafts of the plan. New data are currently being gathered in the New Bedford area and the Center scientists intend to conduct research of a fundamental nature on this problem, to gain knowledge of importance to coastal environmental quality problems in general and to provide input to remedial action efforts to reduce the PCB pollution at this site. The project combines the expertise of Drs. John Farrington, Judith Capuzzo, John Stegeman, Marve Freadman, Robert C. Beardsley, William D. Grant, Albert J. Williama 3rd and Cheryl Ann Hannan.

TO JOIN THE CITIZENS ADVISORY COMMITTEE

To become a member of the Citizens Advisory Committee and to be heard in the deliberations of the Buzzards Bay Project call Dr. Wendy Wiltse at 223-1429, U.S. Environmental Protection Agency, or Bruce Tripp, Massachusetts Executive Office of Environmental Affairs Coordinator for Research (727-9350 or 548-1400) or just attend a session of the Citizens Advisory Committee meetings. Your name and address will be added to the Project Mailing List and you will be informed about up-coming programs and meetings.
TO GET YOUR NAME ON THE PROJECT MAILING LIST

Call or write the Lloyd Center for Environmental Studies
430 Potomska Road
South Dartmouth, MA 02748
990-0505 or 993-7868