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Boston Harbor Management Study

MIT Sea Grant
College Program

Massachusetts
Institute of Technology
Cambridge,
Massachusetts 02139

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BOSTON HARBOR MANAGEMENT STUDY

A Final Report

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Sea Grant College Program
Massachusetts Institute of Technology
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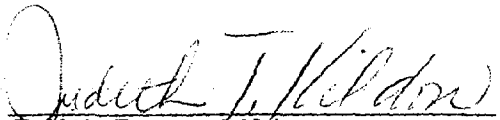
TABLE OF CONTENTS

PREFACE

The Boston Harbor Management Project was conducted at the Massachusetts Institute of Technology from June, 1979 to June, 1981. Funding was provided by the Massachusetts Legislature, the M.I.T. Sea Grant Program, Boston Shipping Association, Massachusetts Port Authority, New England River Basins Commission, Massachusetts Coastal Zone Management Office and the Seaman's Aid Society.

The Project was directed by Professor Judith Kildow of the Department of Ocean Engineering. Associate Investigators were Professor Gary Hack, an urban planner; Professor Richard de Neufville, civil engineer and transportation analyst; Dr. Richard Tabors, economist and environmental engineer, and Dr. Lee Warren, writer and editor. Others who assisted in the Project: Steve Cassella and Amy Philipson worked with Dr. Tabors on the Land Use Atlas; Cassella did the Other Cities Study under Professor Kildow's supervision; Jim Spall, Koji Tsunokawa and Jennifer Zeien worked with Professor de Neufville on Harbor transportation problems; George Blossom did the MDC case study; Sue Resteghini did the Marina Development case study; Amy Stewart of Wellesley College did the Commuter Boat study, and Kathleen Hoard worked with Professor Kildow on the Institutional Structures and Charts.

The contributions of John Ames, former Director of Boston Harbor Associates; Thom Ennen of the Special Commission on Development of Boston Harbor, and Don Connors, Esq., of Choate, Hall and Stewart, of Boston, are acknowledged with gratitude. Finally, special appreciation must go for the major assistance of M.I.T. Sea Grant Office and its Director, Dean Horn.



Judith Tegger Kildow
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INTRODUCTION

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The Boston Harbor in the last century has undergone many changes, most of which reflect fundamental transitions in American society: changes in population patterns, in transportation use, and in daily living. Massachusetts can claim one of the oldest governments in the United States, filled with tradition and spirit. Yet, while times and lifestyles and the Harbor have changed, physically and philosophically, much of the governing structure for the Commonwealth which governs the Harbor has remained the same. Massachusetts' method of adjusting to change has mostly been to add laws, programs and agencies to respond to immediate needs. For example, the growth and reorganization of the Executive Branch in the mid 1970s responded to the times by strengthening the basic governing structures and mandates for environmental protection. Yet, the past decade has brought new concerns and changes requiring a balanced approach--one which protects the environment but at the same time encourages and assists developments which can bolster economic conditions which have been of major concern, especially to decaying urban areas. The absence of any structure to balance the necessary constraining structures of environmental laws in the statewide governing context is meaningfully illuminated in the current state of what some might consider Massachusetts' most valuable set of assets, the lands and waters of the Boston Harbor. Only the City of Boston has undertaken, through the Boston Redevelopment Authority, to rehabilitate according to an apparent planning process the decaying areas of its waterfront, which once bustled with traditional water-based activities. A few other locations, such as Charlestown, Revere Beach and the Weymouth

residential developments are the only other notable changes in the Boston Harbor in many years.

Plans have been aired for other town jurisdictions for better utilizing their waterfront areas as well, but thus far, Boston Harbor developments have been piecemeal, representing the interests of a local city or even a local developer scoped by a limited set of regulations which are primarily focused on water pollution abatement and protection of wetlands. Public concerns, such as rights of access, to what has been determined as an area to be protected for the public trust, and public concerns regarding the larger economic benefits which might be delivered from this valuable coastal resource have been neglected up to now. However, public access has become a major focal point since the Massachusetts Supreme Court Quirico Decision of last year, declaring that the waters and immediate land areas of the Harbor must be protected in the public trust and cannot be owned or controlled for private uses which do not serve the public. And, the apparent limitations on land and the value inherent in waterfront property have brought much attention to waterfronts for purposes of economic development and revenue generation for local cities and towns, particularly in light of the recent Proposition 2 1/2 referendum limiting tax dollars to these cities.

While Boston Harbor is changing especially in the downtown Boston waterfront, the redevelopment expansion continues with recurring patterns of condos, hotels and restaurants, a monotonous pattern which could become very uninteresting. In addition to the few cities and towns which are developing plans for their waterfront area, most cities and towns are either unaware or unable to capture the values lying dormant there.

Two problems arise. First, Boston's renewal expansion outward from its central waterfront will soon affect adjacent communities in numerous

ways, some positive, some negative. In either case these jurisdictions should be prepared to buffer or accommodate the impacts. Apart from a few coastal zone management planning efforts, there appears little preparation or initiative. Second, the management mechanisms governing change in the Boston Harbor are so complex, that they baffle the most experienced of lawyers. In most other American urban harbors some group has taken the lead and forced integrated Harbor planning and management. In some cases, it has been state coastal zone management programs where they have had legislative power (unlike Massachusetts); in others it has been a port authority, a development commission, or a regional agency, consolidating or coordinating jurisdictions. In most other harbors of the United States such as, Seattle, San Francisco, San Diego, Baltimore, Philadelphia, and New York/New Jersey, they have moved more rapidly than Boston to rejuvenate. While crises or rapid major changes triggered some of the harbors into transition, others chose to capture the moment and to respond to newly defined public needs. Other Harbor areas reflect reorganization and a focus of their decision-making and management structures on their harbors. In contrast, nowhere in the Commonwealth is there to be found an agency, an office or a visible group to focus on the Boston Harbor as a place. Of particlular note is the absence of any representation for the Harbor either in the legislative or executive branches. Comprising at least nine cities and towns, depending on one's geographic definition, each reflecting the individuality that characterizes the Commonwealth, and without any vehicle for coordination, the Harbor lacks attention as an entity with an integrated vision or general plan.

As was noted by one Massachusetts legislator, "Our existing governance mechanisms find their historical foundations mainly in the need to represent people as opposed to places." Since there are very few people who 'live'

in or on the waters of Boston Harbor, the lack of any specific public body controlling and speaking for the Harbor is understandable. * Thus, in determining the need to restructure or reorganize the governing mechanisms which we currently have, close attention must be paid to the area's unique geopolitical nature. While the water and Harbor provide the common denominator for all to focus on the Harbor, the populations with interests and rights in the Harbor reflect as broad a range as one would find anywhere. Thus, this mechanism must be unusually representative and sensitive enough to these interests, while at the same time not being so sensitive as to get bogged down with personal agenda.

Certainly, the depressed economy, the pressure of increasing urban populations on urban waterfront areas for entertainment and recreation, and the declining state of much of the waterfront, is gradually awakening portions of the Harbor. Decaying areas such as Charlestown, Chelsea, East Boston, and Hull are currently focal points for redevelopment efforts. The question which needs serious attention, and which has been the subject for this report, is whether the marketplace is adequate to determine the development configurations for the Harbor. Or, is there a need for public intervention to assure that public as well as private interests are protected. At first glance it is quite apparent that beaches, parks and estuaries and even small businesses such as marinas are not adequately considered in the marketplace, and must have public protection and encouragement. On the other hand, it is also apparent that the regulatory system places constraints on revenue - oriented developments to such an extent that not only private but also public interests in the economic development of areas are sometimes compromised. Hence, a better balance which can more effectively respond to current

*See Finneran memo in Appendix.

lifestyles and public and private needs should be sought for the Boston Harbor.

The recommendations which follow emanate from many sources of information which have been gathered and analyzed over the past two years. They are based on charting decision-making in the Harbor, mapping the uses of Harbor lands, doing case studies of major unresolved issues in Boston Harbor to determine what works and does not work, studying problems of public access and problems of revenue-based activities for this harbor and studying six other urban harbors in the United States. They focus on providing a legitimate identity for the Harbor, on coordinating and enhancing developments in the Harbor area and in general on making a significant difference in bringing the entire Harbor alive.

Underlying most of the recommendations is a philosophical assumption that the Boston Harbor has an inherent public value, which even private landowners must consider. There must be adequate public recreation and aesthetic resources and general access. There must also be a mechanism to unleash the largely untapped sources of revenues in a well-planned thoughtfully-developed way.

RECOMMENDATIONS FOR THE MANAGEMENT OF THE BOSTON HARBOR

RECOMMENDATIONS FOR THE MANAGEMENT OF BOSTON HARBOR

There should be a centralization of governing structures which serve the Harbor toward the end of focusing directly on the development and preservation of the Boston Harbor. At the same time, it must represent the multitudinous interests in the decision-making apparatus of the State. That centralization can take place in any of several forms:

1. Keep the same basic governing structure, except to streamline the current environmental permitting system, and to add a new mechanism--a public/private non-profit entity--to facilitate and encourage coordinated planning and development in the Harbor, such as a planning and development commission with appropriate powers to carry out its tasks of assistance in developing the Harbor in coordination with the other agencies with powers in the Harbor.

2. Build a regional federation of state and local governing bodies underscored with strong legislative mandates to carry out specific duties for the Harbor, requiring them to be housed in the same building, giving them a carefully designed legislative structure for coordination. Such a federation would include all but Federal powers in the Harbor.

3. Build a superagency, such as might be created through a new body or institutionalization of the current Special Legislative Commission for the Boston Harbor with the appropriate representation, giving it absolute power over all harbor-related activities through strong legislation.

4. Use the existing governing structures without changes, pass a legislative package instructing all governing bodies with authority and interest in the Harbor to operate under specific guidelines stated in the legislation.

5. Use one of the existing agencies already dominant in the Harbor and build it into the Super Harbor Agency through special legislation.

The five examples above represent a range of options one might consider for the Boston Harbor. In assessing them, the first two intermediary forms appear to have the most probability of success, although they might be the most difficult to organize and implement at first glance.

The rationale for these forms comes from investigating other U.S. harbors and how they are managed, as well as intimately studying the existing management apparatus for the Boston Harbor. Several factors led to the conclusions that the first two alternatives were most relevant for the Boston Harbor.

1. The creation of a superauthority (#3 above) superceeding all other structures, could not be easily placed above the current governing structure and survive, for the several existing governing bodies are too deeply entrenched in state powers and politics to permit their strengths to be so eroded.

2. The creation of a superagency from an already existing dominant agency for the Harbor (#5 above) such as was done in the case of the San Diego Port Authority seemed out of the question as well. None of the dominant groups reflect either the broad range of philosophies and interests necessary to represent the Harbor nor the geographic authority to carry out such a broad mandate. And there were several equally strong governing bodies whose powers and position would be difficult if not impossible to displace, e.g., Massport, City of Boston, and the Executive Office of Environmental Affairs (EOEA) (through the functions of the Department of Environmental Quality Engineering (DEQE) and the Metropolitan District Commission (MDC) in particular).

3. While the Executive Office of Environmental Affairs (EOEA) carries out an integral and important regulatory function in Boston Harbor, without a balancing agency or arm for facilitating, initiating and encouraging, and coordinating development in the Harbor, the EOEA's functions to some people have become an unbalanced constraint on Harbor activities. For those wishing to develop Harbor lands, the management structure, while fulfilling necessary functions, is cumbersome and constraining without any single governing mechanism to either assure the efficient functioning of the regulatory arms or to help expedite the process. There is only the Boston Redevelopment Authority (BRA) for the City of Boston, operating in a facilitating and initiating fashion to move things along in rejuvenating the Harbor. Massport, too, has functioned similarly to carry out industrial port developments, and peripheral activities such as the Fish Pier and other commercial land developments. However, the primary purpose of Massport is to run the airport and the shipping port, not to carry out a real estate business of land development and land speculation in the Harbor area. It is neither mandated, nor structured to carry out this facilitating, initiating, and developmental function in the general sense that is necessary to redevelop Boston Harbor.

4. There have been numerous attempts to change the management of Boston Harbor over the past decade. Maintaining the same systemic structure with only a legislated base to give emphasis to Harbor activities (#4 above) would probably fail to make a difference within a system and structure which resists change as this one seems to. This solution would also have

no incentive to change the ways of the past without financial incentives, and there is no guarantee within the current accounting system that the monies would be spent on Harbor activities. If monies are to be allocated for purposes of improving the Harbor's contributions in this area, there should be a focal point for those monies so that oversight of the expenditures would be more easily carried out by the public as well as the legislature.

Functions of a Governing Structure for the Harbor:

1. Promote and carry out both a long-term and short-term integrated planning process for the uses of the waters and lands of the entire harbor, demonstrating a regional view of the resource.
2. Provide a focal point for coordination of the land and water uses. Set guides for resolving "highest and best use" criteria with water-dependent and comprehensive planning needs.
3. Facilitate the necessary activities in the Harbor ranging from environmental clean up to the development of revenue generating activities, expediting the permit process and providing investment incentives.
4. Provide the communication and information to and from the users and regulators of the Harbor area.
5. Mediate conflicting use patterns and equity issues.
6. Provide the oversight for carrying out the Public Trust Doctrine as designated under the Quirico Decision. Provide clear requirements for potential developers to preserve public trust.

7. Expedite activities to upgrade and expand the public access and recreational facilities in the Harbor area. Centralize responsibility for those activities in a single office within a new structure.

8. Focus attention on public access and public trust issues through formation of public advisory committees and public meetings in the broadest terms. The public is largely ignorant of the Harbor's potential and actual value. Those constituencies which have Harbor interests are fragmented and have rare occasion and limited, if any, channels through which they can speak.

9. Refocus or restructure governing bodies and attitudes to be more responsive and accountable to the public.

10. Provide a governing mechanism to protect equity and preclude usurping by an elite few the ever increasingly valuable public resources in the Harbor.

11. Provide a shortened and simplified system for environmental review and issuing permits, especially for the small developer.

12. Consolidate investment and development activities into a single office which should incorporate the benefits derived from the state Office of Commerce and Development and Massport, for example, and coordinate with other relevant groups such as the Chamber of Commerce to privide optimal development incentives leading to investment and greater employment.

13. Encourage and assist the mayors of the cities and towns of the Harbor to form an organization through which they can exchange ideas and issues about the Harbor as they affect their localities. Representation in such an organization should be weighted by population and/or shore miles

on the Harbor. This organization can also function as the focal point for representation enabling the local governments to act as a bloc in whatever governing process is relevant.

Because centralization of authority for the Boston Harbor will take some time to establish and because there are certain building blocks which will make it more effective, the following list of interim steps should be considered:

Recommendations for Interim Steps:

1. The Legislature should request that the current Harbor Commission appoint a subcommittee to assess the status of all government-owned property along the Harbor's edge--Federal, State and Local--to identify best uses for the properties, including trades for appropriate but less valuable sites, allowing the best possible uses of all Harbor land. This could set the stage for the larger job of planning for the Harbor, which could begin either under an interim body to a centralized Harbor body, or by the Harbor entity itself.

2. The Legislature should immediately establish a Right of Way Commission, possibly through the Public Access Board similar to that of Rhode Island, to determine exactly and clearly mark where the public does have access to the Harbor. This should be followed by a legislative mandate to the new Harbor entity along with sufficient funds to realize the full potential of these areas.

3. The Permit Assistance office of the Governor needs to be expanded to include Harbor permits as well, until a Harbor entity can expedite the permitting process.

4. Both the executive and legislative branches of the Commonwealth must address the private and public labor-management problems prevalent throughout the Commonwealth, which together with the larger incumbent construction costs associated with building and implementing activities in the Harbor, often stifle growth and development and contribute to low productivity and inefficient operations. In the public area, the civil service and patronage systems are ridden with inequities and inefficiencies. Both the strengths and weaknesses of both systems form interdependencies which make the untangling of the problems that much more difficult. In the private sector, the labor-management system appears to have proceeded with an unspoken rule that costs can be passed on to the consumer, no matter, so that much inefficiency is permitted in the system to such an extent that the unlayering of what has gone on for decades, a way of life, will also be difficult to undo. While the unleashing of public funds to encourage developments in the Harbor might be a simpler solution, as the current Governor has attempted to do throughout the state, the heart of the matter lies in the negotiated contracts and the lack of productivity requirements built into either the public or private sector arrangements. With particular reference to the Harbor area, the successful launching of numerous public-oriented activities has been impeded by labor-management problems and others are carried out with gross inefficiency with losses to the public. The new Harbor mechanism, if one is created, might experiment with new employee incentive systems that reward efficiency, productivity and innovation. This might also make its success more certain and provide models for other divisions of state government.

5. The public's interest should be enlisted; structures should be developed as a conduit for this interest and to provide for appropriate response. Private monetary sources should be sought through the Chamber of Commerce and other financial sources to aid citizens' advisory activities in the Harbor.

6. Water quality management in the Harbor and adjacent Metropolitan areas needs serious attention. The current structure of the MDC should be reexamined to determine whether its current mandates and functions are appropriate. The MDC structure and its links must either be changed to accommodate new directions and needs of society, or a more effective organizational structure, more accountable to the public it serves, must be substituted. For many years, a portion of the MDC staff, including professional staff, has not been under either civil service or any other screening mechanism for capabilities. Both the supply of water and treatment of water are of fundamental importance to the region. Effective implementation and management of both of these mandates requires deft placement of experienced and appropriately trained employees. There must be objective review to assure that these standards are not compromised by automatic civil service promotions or by inappropriate patronage appointments. In any new Harbor management scheme, water quality management must be integrated, either through a more effectively organized MDC that will provide planning, construction and operations for water supply and for wastewater treatment, or through delegation of power among critical bodies which could apply expertise to assure satisfactory management. Or, if this is impossible, citizens could move for a private, non-profit organization to be formed, financed by user fees, to carry out this most important function.

7. As an advisory resource for a new Harbor mechanism, some zoning, taxing and use guides must be developed as a basis upon which to launch such a new operation.

   A. To assure incorporation of coastal zone management philosophies, coastal guidance packages similar to those used in Baltimore might be prepared with the assistance of the state Coastal Zone Management (CZM) Office.

   B. The current tax assessment structure for the local cities and towns should be changed to reflect better market values. The current system is an impediment to development, because it is based on assessments of current uses of the land and not on market value. As a result, the most valuable piece of vacant property in Boston Harbor is assessed at $1/square foot--as a parking lot--instead of at its market value of millions of dollars, a major loss of revenue to financially pinched governments. This system encourages landowners to keep property vacant and let rundown property remain an eyesore, encourages land speculation and inhibits the development of best possible uses for the land. If there is a need to preserve land for open space or future use, some incentives should be provided for owners to use this land for park or recreation until further plans are in order for development.

8. The determination of "highest and best use" often used by zoning and tax boards needs to be reexamined and altered to include new societal values and needs which are not always directly born out by dollar calculations. For example, the best possible use from an economic point of view for the

owner of a particular parcel on the Fort Point Channel might be an office tower which would yield a high rental per square foot. On the other hand, if that "highest and best use" criteria were carried out on any scale in the area, the result would be dead space from 5 P.M. to 9 A.M.--useless and really undervalued under criteria that evaluate public amenities and the multiplier effects of these amenities as the basis for calculating best possible uses. The quality of life for the entire area, rather than economic development for an individual piece of property must take priority, for ultimately the value of the entire area is what must be assessed.

9. Zoning based on several categories of use--water-dependent, water-enhanced and non-water-dependent--along with incentives for the most appropriate use should be implemented for the entire Harbor with a public oversight process.

10. Legislation should be passed which requires and defines public access for every project involving government funds and eventually for all projects bordering the Harbor. The final determinations for the Quirico Decision should provide a significant mechanism for assuring public access and public interests in the Harbor to be carried out through new Harbor management. The decision to reactivate the Public Trust Doctrine will provide a sound basis upon which to plan the Harbor and carry out extensive and comprehensive development in the public interest. Examples of California, Oregon and Washington, where the coastlines belong to the public, demonstrate positive precedents for this model.

11. Provide better public information about the Harbor.

    A. When public facilities are available, provide intense public information about them, allocating appropriate funding levels to

do so. The Harbor Islands are an excellent example of strong efforts to serve the public, wasted by poor, low-funded public information procedures, that until recently let few know what is available or how to use them.

B. Prepare a documentary film of Boston Harbor, including brief highlights of other harbors where much has been accomplished. The film should envision what Boston Harbor might look like in order to stimulate interest in coordinated planning.

12. Water-based commuter transportation systems should be given preference over land-based to relieve crowding. A mechanism to coordinate land and water-based commuter systems should be instituted. It should permit private enterprise to enter on equal grounds as a competitive force with public systems.

A. Currently all public carriers within the MBTA district must be licensed by the MBTA through authority delegated to it by the Department of Public Utilities (DPU). It is strongly recommended that the DPU recover these powers to prevent further restraint of the market, particularly as it pertains to Harbor transportation.

B. The marriage of the State Department of Transportation and the MBTA under the current administration has resulted in the total allocation of Massachusetts' Urban Mass. Transit Funds (UMTA) by the State Department of Transportation (DOT) going to the MBTA. Clearly a minor portion of these funds allocated to water-based transportation could have provided good harbor terminals and capital for adequate commuter boats. The abortive attempts at establishing such a service (see Case Study on Commuter Boats) could have been turned into major

triumphs. The complexion of the Harbor could change, reflecting the true benefits offered by the water through a different allocation of these and other funds.

NOTE: For further elaboration and explanation of the roots for many of these recommendations, please refer to the section, "Other Cities" pp. 118-121 entitled "What is Transferable?"

PHYSICAL DESCRIPTION OF THE HARBOR

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Note: Members of the Project team prepared a land-use survey of the Harbor and prepared thirteen color coded maps to illustrate their findings. A written summary of the survey is included in this report, but the maps themselves have not been reproduced because of the expense involved. The MIT Sea Grant Program has several sets of the maps available for room use in their reference center, or copies may be ordered from them for $13 a set.

SUMMARY OF THE LAND-USE SURVEY

The Annotated Land-use Survey reveals the following facts about the Boston Harbor:

1. The Harbor is an underutilized area with high potential for public use and revenue generating activities.
2. The Harbor is a place of mixed uses; it is residential, industrial, commercial, recreational.
3. While most of the outer Harbor is residential in use, combined with other uses, the Inner Harbor contains large areas of government-owned land. This government ownership provides the space and the basis for comprehensive Harbor planning. (See also, the jurisdictional charts, indicating large landowners in the Harbor: Massport, Boston, MDC.)
4. These large blocks of government land also provide the basis for land trades where appropriate for more effective use of the land.
5. While there are numerous public rights of way, they are often ill-defined, inaccessible, unmarked, undeveloped. (See Public Access section.)
6. Shipping in the Harbor is heavily private, i.e., sugar and fuel, Sealand. Massport, while a key participant, is but one of several major shipping interests. (See The Port of Boston: Status and Prospects.)
7. Residential uses of the harbor are mixed in income, though segregated. housing ranges from the Harbor Towers in the Inner Harbor to middle income houses in Winthrop, to double and triple deckers north of the city, to Columbia Point public housing. However, this economic mixture

may be temporary: almost all new housing along the Harbor's edge is luxury housing. (See Boston Globe, 1/11/81.) The exceptions to be noted are the elderly and middle income subsidized housing units in Revere and East Boston.

8. Harbor land use is rarely water dependent in terms of traditional perspectives. Rather, many activities are either water enhanced or totally land related and located on the Harbor because of the low cost of low-lying land or general convenience to Boston.

Scope:

The survey's objectives were:

- o to identify the major land use types and their predominant locations in the Harbor;
- o to identify the location of public properties within the Harbor;
- o to identify, where possible, the areas of public access, either structured or unstructured, to the Harbor;
- o to identify areas for potential development.

Unlike most current Harbor surveys, the BHMP has not studied just the inner downtown Harbor, but rather has used the general definition of the Massachusetts Coastal Zone office. The Atlas covers the entire Boston Harbor, from the Lynn/Revere town line on the North, to Nantasket Beach on the South. The inner Harbor, as it is referred to in this report, is defined as the area that reaches from the southeast corner of Logan Airport to Castle Island. The outer Harbor is the remaining area.

The land uses identified were:

- o Residential: All single through multi-family units are included. No effort was made to separate out individual buildings in which there was mixed commercial and residential usage.

- o Commercial and industrial: With the exceptions of Public lands and marine areas, all commercial and industrial land uses, including commercial piers, were grouped together.
- o Public land: Park facilities, beaches, and publicly owned buildings within the coastal zone are separated from the generic category of commercial and industrial uses.
- o Marine: Largely water-based activities, such as marinas, dock facilities, and mooring areas have been separated from commercial industrial uses as a subcategory.*
- o Large institutional: These areas included the majority of the properties owned by the state and federal government.
- o Vacant/undeveloped: Vacant and/or undeveloped lands are identified. These areas were limited and occurred generally north and south of of the center of the Harbor.

The information gathered in the land use atlas was developed to be presented simply on a series of maps illustrating general use of the Harbor. Because of the particular needs of the BHMP, the level of detail was confined to these six categories. It was not necessary for our purposes, nor, for reasons of time and money, was it possible, to do a parcel by parcel assessment of land ownership. Nor has the Project attempted to locate individual, small parcels of land owned by public agencies or individual towns, but rather has focused upon those parcels sufficiently large enough for there to be potential for major private undertakings or public uses.

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*The traditional definition of marine-dependent activity is used here. We recognize that residential use of the Harbor is marine related, but have chosen in this survey to separate actual water use from residential, visual, water-enhanced use.

Information not traditionally available on a land use atlas has been included, through a numbering key which relates location on the map with a set of roughly one hundred explanatory notes. This data identifies:

- o Points of public access:
- o Potentially recreational zones without public access, primarily in suburban areas;
- o Areas with public access but with limited or no parking facilities and no close public transportation;
- o Significant Harbor economic facilities, such as the major piers and the LNG terminal.

Procedure:

The information used in the Atlas has been compiled from the following three sources:

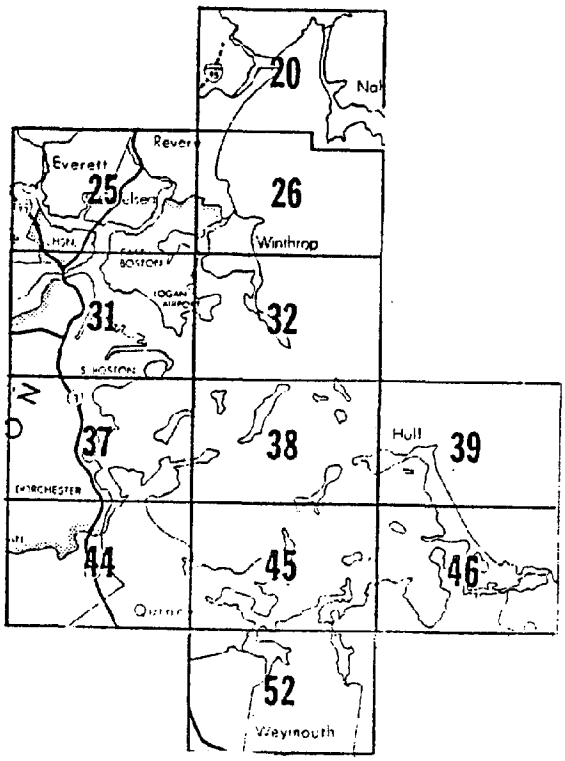
- o Windshield survey: The most reliable method of collection of the general data has been the use of windshield surveys (visual surveys undertaken either driving, boating, or walking the shore areas) of the coastal zone area. The windshield survey method has the advantage of providing information on access and on general conditions of specific portions of the Harbor that are more recent than available aerial photographs.
- o Aerial photographs: Information has been taken from existing aerial photographs of specific portions of Boston Harbor, provided to the group by Massport. This represented specific overflights, ranging from 1969 to 1979, of Massport facilities. In addition, the group has used a consistent set of aerial photographs of the entire Harbor flown in March of 1976 (the latest full set available commercially).

- Existing land use information: Where possible the project has utilized existing land use data. Such information is available for the City of Boston though it was found to be at too great a scale of detail, not easily compatible with the remainder of the analyses. Other sources of published information were found in the Coastal Zone Atlas and in Boston Harbor.*

*Massachusetts Coastal Zone Management Plan, Chapter 5, Massachusetts Coastal Regions and an Atlas of Resources, Commonwealth of Massachusetts, Executive Office of Environmental Affairs, Boston, June 1, 1977.

Land-Use Atlas

BOSTON HARBOR MAP KEY



The base maps used for the land use materials presented are taken from: Street Map Atlas Metropolitan Boston and Eastern Massachusetts, Arrow Publishing Company, Inc., Newton Upper Falls, MA, 1979. (permission requested)

ATLAS NOTES

The notes which follow are keyed to the land use maps available at extra cost. These notes relate to specific locations within the Harbor and are designed specifically to identify points and quality of access to the Harbor and to identify commercial activities of significance.

1. Point of Pines Road Access surrounding Residential area. Sea Wall, separating road from small beach area. Limited parking.

2. Revere Beach and Crescent Beach (MDC) Access along full length with parking off road as well as on roadside. No Parking outside of this specific area.

3. Pines River Marsh Private Marinas. Limited slip capacity, primarily moorings.

4. Abandoned Pier.

5. Rental facilities for small boats.

6. Beachmont: No public access, Private Property separating roadway from water.

7. Short Beach (MDC). No Parking.

8. Winthrop (Gravers Cliff). Private Property separating roadway from water.

9. FAA Radar Station. No Public Access.

10. Winthrop Beach (MDC). No Parking.

11. Yirell Beach (Winthrop). Limited Parking. Limited Access.

12. Deer Island. No Public Access.
    A. House of Correction (Suffolk County)
    B. Sewage Treatment Facility (MDC)
    C. Fort Dawes (GAO)

13. Crystal Cave. Private Boat Launching and Yacht club, Marina Facilities. Limited public access.

14. The Basin, mooring area, public boat ramp and parking and public park.

15. Cottage Park, Court Park. Access only at street endings.

16. Private Yacht club.

17. Government Property, No Access.

17A. Open Area.

18. Limited Marina area with moorings.

19. Orient Heights Beach/Constitution Beach (MDC) access by MBTA
20. U.S. Government Property, No Access
21. East Boston Piers 3, 4, & 5, Sheds Raised dead berthing only
22. East Boston Pier 1 - Storage Space
23. Small park, access to Park
24. Commercial Dock facility. Boston Fuel Transportation
25. Abandoned Wharf Space
26. Mario Umana Harbor School of Science and Technology
27. General Ship Corporation
28. Chelsea waterfront. All Industrial or commercial. No Public Access, some vacant land.
29. Chelsea Navy Hospital
30. LNG Terminal, Distrigas
31. Revere Sugar
32. Moran Terminal
33. Mystic Pier
34. Charlestown Navy Yards (deactivated) Now Mixed Use Development
35. Old Ironsides
36. Hoosac Pier
37. New Charles River Dam
38. Yacht Basin
39. Urban Park Space with Hockey Rink
40. Coast Guard Station
41. North End Waterfront, predominately commercial space along Atlantic Avenue
42. Commercial Wharf? - Private Marina

43. Lewis Wharf - residential/commercial, private marina
44. Aquarium - Ferry Service, Sightseeing Facilities, Harbour Tours
45. Harbor Towers - private marina
46. Small dock / Pier facilities
47. Commonwealth Pier
48. Fish Pier
49. Shipyard, U.S. Government Property
50. Naval Shipyard (deactivated) Now Industrial Park and New Site for Massport Container Facility
51. Reserve Channel - Commercial Access to # 52 and 53.
52. Boston Edison Power Plant with Dock facilities
53. Dock facilities, Tank Farm
54. Warehouse space, Dock facility with Auto storage behind
55. Castle Island - Sea Land Terminal
56. Castle Island - Public Access New Massport Container Facility
57. Pleasure Bay - Public Access with Beach facilities (MDC)
58. L Street Beach (City of Boston)
59. Carson Beach (City of Boston)
60. U. Mass. Boston, access surrounding campus
61. J.F. Kennedy Memorial Library
62. Malibu Beach
63. Boat Ramp - public access on property owned by Boston Gas
64. Tenean Beach (MDC)
65. Marina Landing, Old Squantum Airport
66. Commuter boat service to Boston
67. Nickerson Beach

68. Squantum, No Public Access

69. Wollaston Beach

70. Private Beach Areas, Posted

71. Public Access, walkways to water

72. Beach behind seawall - public access, no parking

73. Nut Island Sewage Treatment Plant

74. Manet Beach

75. Quincy Shipyard

76. Wessagusset Beach (Weymouth)

77. Captain Will K. Webb Park (Weymouth)

78. Stodders Nech Park

79. Private Beach

80. Otishill. No Public Access

81. Bathing Beach, Hingham, Limited Parking

82. World's End; Public Access to Land Trust Area.

83. Residential Areas with no public access.

83A. Site for Proposed Public Marina

84. Residential Areas with no Public Access

85. Mariners Park, (Hull)

86. Hull, Limited Public Access

87. Nantasket Beach (MDC)

88. Paragon Park, Amusements

DECISION-MAKING STRUCTURE

FOR THE HARBOR

DECISION-MAKING STRUCTURE FOR THE HARBOR

TABLE OF CONTENTS

SUMMARY

In the analysis of the existing Boston Harbor management structure, the basic and vital source for our conclusions is the information included in several institutional charts. These charts allow a detailed look at the range of government participants in Harbor decision-making. The first chart is indexed according to federal, state and local agencies with their respective legislative mandates and responsibilities, powers and permitting jurisdictions as dictated by these statutes. The other charts classify the same agencies from two other perspectives. The second chart aligns the various agencies according to their powers, e.g., eminent domain, permitting, and the third chart lists the agencies by their activity, e.g., environmental protection, construction, etc.

This approach has provided some clarity to an otherwise complicated institutional system. As a result of comparing and contrasting, some of the assets and liabilities of the managerial structure have become apparent. The strengths and weaknesses in jurisdictional authority frequently became self evident, establishing the basis for the management recommendations.* The following outline furnishes a brief description of the results of the chart analysis.

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*See Chapter I.

INTRODUCTION

The intent of this chapter is the identification and clarification of the prevailing strengths and problem areas for those who have interests in and participate in decision making for Boston Harbor. This is achieved through a consideration of different perspectives of the existing management structure. For this purpose, three institutional charts of the Boston Harbor have been compiled.

The first of these charts includes a comprehensive list of the participants in the Boston Harbor's management. Accompanying each agency and its corresponding legislative mandates and those responsibilities, powers and permitting jurisdictions which the mandate requires.

The second chart categorizes these same agencies according to their jurisdictional powers, e.g., eminent domain, permitting; and the third chart completes the view by aligning federal, state and local agencies with the type of activity in which they are involved, e.g., construction, environmental protection.

These charts illuminate at least one perspective of the institutional framework for the Harbor. Comparative studies of the charts reveal the shortcomings in the system, such as jurisdictional overlaps, gaps, and inefficiencies, as well as the strengths of the system, such as facilitators, and points of initiative. These aspects of the existing management structure also illuminate the complex system of interrelationships, both beneficial and detrimental to utilization of the harbor's assets.

III. CHARACTERISTICS OF THE DECISION-MAKING STRUCTURE

In the past, the Commonwealth of Massachusetts has gained a reputation for having a strong environmentally-conscious government maintaining a strong emphasis on stringent environmental regulations and the permitting processes which they require, such as are found in the landmark Wetlands Legislation and Massachusetts Environmental Policy Act. Commended as a necessary part of the regulatory system to moderate the previously unchecked practices of industry and other development projects, its complexity and pervasiveness have led some to view aspects of implementation as unnecessary constraints on economic development, especially in the coastal zone. These constraints take two forms:

First, as a whole, they are structured in such a way that they can become costly delaying mechanisms without justification if their time phasing is not carefully monitored, merely due to the number of permits and agencies which can become involved. There appear to be continual attempts to remedy this problem, although bureaucratic vested interests and tradition sometimes inhibit these attempts.

The second form is quite separate from the system of environmental regulation. It is a generic state government problem of imbalance. While development opportunities are sought and stressed throughout the Commonwealth, there has been no particular effort for the Boston Harbor, leaving a vacuum in the Harbor development-orientated mechanisms relative to Harbor-related environmental constraints. Added to this vacuum has been an absence of organized public voice regarding public amenities for the Harbor area. While several state agencies (MDC and DEM) effectively provide public recreational facilities, there has been no broad-based vehicle for

coordinated public input, particularly from the publics which don't live along the downtown Boston waterfront. Boston Harbor Associates, a private, non-profit group has, at least, provided an outlet for the downtown waterfront population.

Some of these issues have been addressed by the current state administration and corrective action has been sought to ameliorate aspects of the situation. Noteworthy examples of this process are the implementation of a Permit Development Assistance Program in the Governor's Office and the compilation of a beneficial financial incentive package within the Department of Communities and Development. The apparent flaw in the implementation is the exclusion of Boston Harbor from this program. The Harbor, having no status as a singular decision-making entity, appears to be neglected by these activities.

A. No Representation for the Harbor

As a rule, Boston Harbor does not have a status in government priorities due to its lack of identity as an entity. Rather, it is represented as separate cities and towns which just happen to border the Harbor. Clearly, Boston Harbor is a vital resource, not only to Boston Harbor constituents and citizens but to the entire constituency of the Commonwealth of Massachusetts and possibly New England as well. Yet, because government representation has traditionally been carried out based on a geographic location of people living in a particular area, functional representation which transcends a specific geographic domicile receives no credence in the governing mechanism unless special arguments and efforts are made to bring it about.

Decisions, rulings and permits are handled on a case-by-case basis by most agencies. If a situation requiring government intervention should arise in Boston Harbor, it is treated like any other without due attention

to the Harbor's unique attributes or the full range of its implications for the Harbor. Beyond this method of decision making, the actual structure of local, state, and federal government lacks any focus on Boston Harbor. Sometimes local, state and federal agencies whose jurisdictions legally cover the Harbor, decline any involvement with the Harbor at all.

For example, the Massachusetts Department of Communities and Development does not deal with any affairs directly concerning the Harbor, although its financial incentive packages could prove invaluable assistance to commercial and urban development in the Harbor. Also, the Governor's Development Office, which has initiated a Permit Assistance Program and has been designated as a permit "expediter" by executive order, becomes involved only in permitting problems which are external to the Harbor area. These two particular instances are indicative of the lack of concern with Boston Harbor as a valuable asset in state managerial techniques. This limited orientation of planning, decision making and implementation for Boston Harbor has until now precluded opportunities for enhancing the Harbor as an entity. Any long range planning for the future growth and development of the Harbor has also been constrained by this factor.

B. The Public Voice

In an effective decision-making structure, it is essential that there be devices for public input. The Boston Harbor region is a point of interest and concern for many constituencies throughout the Boston Metropolitan area. Their desire for participation in the planning and management process has resulted in the formation of the Boston Harbor Citizens' Advisory Committee (BHCAC) the Boston Harbor Associates, the Boston Marine Education Exchange, and others.*

*Other Boston Harbor neighborhood groups and associations are active as well.

Yet, the establishment of these organizations is not always sufficient to ensure the optimal use of the Harbor in the public interest despite the members' determined and sincere efforts to be represented. As a result of the creation of the BHCAC, vital communication and coordination linkages have been formed between private citizens and the federal and state environmental agencies (EPA, EOEA).

The public interest sometimes is forfeited for development projects which are financially advantageous to the city's tax structure. Hence, recreational facilities such as public and private marinas, fishing piers and public access points to the waterfront receive secondary status in development considerations. In fact, water-based activities take secondary status to land-based high income options, although zoning procedures could dictate otherwise.

The Boston Redevelopment Authority (BRA) is authorized to act on behalf of the "public interest", although its objectives are often impeded by compelling pressures to give traditional sources of financial return or private interests a higher priority. Additionally, citizens' advisory committees which possess the potential for voicing public opinion and preference are underutilized. Insufficient funding has limited their abilities to extend their public outreach and realize their intended function, forcing accountability from government administration. There is recent evidence that the increased media coverage and public meetings may be having some impact. When specific concerns finally surface because of neglect or conflict impasses, citizens groups have been effective through public meetings in airing the issues and pushing for effective resolutions. Such diverse issues as sewage treatment for Boston Harbor, the choice of a

harbor master, the need for a public boat basin, and the Long Wharf hotel development received unusual public attention and forced governing bodies to be more responsive to public needs. There is the need for public opinion* for major development plans in any government management framework. A clear obligation of public agencies to their constituencies has been often overlooked or ignored. As a result, the full value of Boston Harbor as a public resource, recreational site and historical entity has not been fully realized.

C. A Concentration of Power

Although many entities are involved in decisions affecting Boston Harbor, there exist but a few federal, state and local authorities which actually exercise influence in Boston Harbor. The predominance of power is found in: (1) the City of Boston through the Boston Redevelopment Authority (BRA) and the Conservation Commission; (2) Massport; (3) Executive Office of Environmental Affairs (EOEA) and its offices, the Metropolitan District Commission and Department of Environmental Quality Engineering; and, (4) the Federal Environmental Protection Agency. The control that these agencies possess is not absolute (other agencies do possess important functions, e.g., U.S. Army Corps of Engineers, U.S. Coast Guard) but, in general, the managerial input of these groups dominates most judgments and decisions concerning the Harbor and its surroundings.

The power of these agencies can be attributed to a variety of factors. The fact that Metropolitan District Commission (MDC), Massachusetts Port Authority (Massport), and the City of Boston under the auspices of the Boston Redevelopment Authority (BRA) hold title to a good deal of waterfront

*Public meetings are held but evidence of the use of meaningful contributions by the public is rarely evident.

land in Boston Harbor and its vicinity seems to be a key determinant in the power structure. Because these agencies also retain the power of eminent domain, their influence is further supplemented, especially in development projects which extend into their jurisdictional sphere of influence.

Also, because of the City of Boston's Board of Appeals and Boston Redevelopment Authority's influence in zoning and building permits, the fate of development projects is usually contingent upon the approval of these bodies. While power really lies with these few groups, their mandates and objectives as well as constituents are diverse and make coordination and cooperation difficult in many instances. When they do have common objectives, such as in the case of the Fish Pier, the process works well. One might conclude there is a need for some agency to compel such coordination in cases when objectives are not mutually agreeable.

D. The Permitting Process and Relationships Among Agencies

The lengthy and costly permitting process further accentuates the existing jurisdictional inequality by preventing local or individual participation in the development process. Oftentimes the money and motivation for a development project exists, but long delays, even up to two years, e.g., National Pollution Discharge Elinimation System (NPDES) permits and the associated lawyer's fees, eventually defeat the small entrepreneur's efforts. The NPDES requires the involvement of both state and federal permitting authorities (the state Department of Environmental Quality Engineering - Division of Water Pollution Control and federal Environmental Protection Agency). Until recently, there were reviews of the same with little attention to coordination of effort or concurrency, so that applicants incurred lawyer's costs of up to $200,000* and sometimes still

*The Charlestown development is one such case.

lacked permit approval. Now arrangements between EPA and EOEA strive for better coordination.

Costly permitting processes shift the influence in Boston Harbor development to those capable of withstanding the financial burden, that is, to state and federal agencies and large corporations: inherently, this system allows those agencies capable of stalling the development process to do so with little restraint. This type of situation can lead to unhealthy means for gaining access to this inequitable management structure.

While efforts are underway to improve the permitting process, it is understandable why the problem has persisted. There are numerous pieces of legislation which must be coordinated. To preserve the water quality of rivers and harbors of the United States, the Federal Water Pollution Control Act (Clean Water Act) was passed in 1972 and the Environmental Protection Agency (EPA) was designated the agency responsible for "establishing permit requirements, state program requirements and procedures for decision making" for the National Pollution Discharge Elimination System (NPDES) permit program. In the footsteps of the Clean Water Act (CWA) followed a subordinate yet equivalent piece of legislation referred to as the Massachusetts Clean Water Act. This act provided for the Division of Water Pollution Control (DWPC) within the Department of Environmental Quality Engineering (DEQE) with the Executive Office of Environmental Affairs (EOEA). Its legislative mandate required DWPC to adopt standards of water quality and prescribe limits, permits, and procedures for the NPDES as well as pollution regulation for ground water permits, water quality certification and industrial wastewater treatment facilities approvals. Corresponding to their affirmative responsibility to protect the water environment, the DWPC is obligated to approve reports and plans of pollution abatement facilities, inspect construction of facilities,

direct planning for federal funding for construction and supervise operation and maintenance of facilities. Undoubtedly, a determined effort has been made to include every aspect of water pollution disposal regulations in order to protect the waters of the Commonwealth. In essence, it is apparent that there has been a distinct "vertical" separation between agencies with similar goals. Each particular authority is concerned with its own affirmative responsibility whether it be regulatory, public works, financing, land use or redevelopment. When considering development proposals for a particularly rich and promising resource region such as Boston Harbor, it is essential that the whole picture be seen.

The permitting process is one instance where the absence of a concerted coordinated effort has led to duplicative and counter productive actions. Duplication of permitting jurisdiction is particularly evident in the case of federal/state overlaps, e.g., Environmental Protection Agency/Department of Environmental Quality Engineering (EPA/DEQE). Both of these agencies administer programs which are similar in purpose, e.g., Hazardous Waste Management, NPDES. During the period of this Harbor project, these two agencies strengthened their coordination through agreement to a single set of conditions for permitting and attempting a more consolidated authority between them.

The problem of overlapping authority also extends into the state office itself (DEQE). The Department, existing as the states leading environmental permitting authority, is responsible for several regulatory processes. It allots a portion of this authority to divisions under its jurisdiction, e.g., Division of Water Pollution Control (DWPC) and Division of Waterways. The Division of Waterways' main permitting function is in connection with the Chapter 91 Waterways License. The purpose of this legislation is the protection of the public's rights in the waters of the Commonwealth and the land under

its waters. In actual implementation, the regulation is applied to projects which include structures built on the tidelands below the low water mark. A corresponding piece of legislation which is a mandatory prerequisite for the Waterways License is the Wetlands Order of Condition which is issued by local conservation commissions with an appeals process to the Department of Environmental Quality Engineering. Its general purpose is also to protect the public interest by regulating projects in the following areas:

1) Any bank, freshwater wetland, coastal wetland, beach, dune, flat, marsh, meadow, or swanp which borders on the ocean, estuary, creek, river, stream, pond or lake;
2) Land under any of the bodies listed above;
3) Land subject to tidal action;
4) Land subject to flooding.

Wetlands legislation and Chapter 91 Waterway Licenses overlap to a large extent, although some who administer them defend their separation on the basis of claiming different constituencies. Together they are comprehensive. Since they are not managed together, although their intent appears overlapping, the consolidation, or at least smoother coordination of the two pieces of legislation would provide better management.

Again, dredging in Boston Harbor is an important requirement for any water dependent activity on the Harbor waterfront. The dredging process itself must be strictly regulated to prevent the undue churning up of hazardous and toxic sediments which could severely lower the level of water quality. In order to prevent or at least mediate this effect, several agencies attempt to execute the mandates of what is referred to as the "section 404" permit of the Rivers and Harbors Act of 1899. The U.S. Army Corps of Engineers is the ultimate authority in approval

of any dredging proposals. This situation is a direct consequence of the Corp's active responsibility in performing the dredging operation. Unfortunately, their approval is not granted until a Dredging and Disposal of Dredged Material permit has been confirmed by DEQE. The time lag between the two permit authorizations can often impede the smooth progress of a development proposal. To further complicate matters the Environmental Protection Agency establishes the requirements for "404" state administered programs. Again the good intentions of a multi-agency, multi-level environmental protection program may be hindering the progress of water dependent activities without notably increasing the level of environmental quality.

To supplement and facilitate the complete environmental protection program, an environmental review process is necessary. Under the auspices of the Environmental Protection Agency (EPA), Massachusetts Environmental Policy Act (MEPA) & Review and the Coastal Zone Management Office within EOEA, this function has been more than adequately provided for bureaucratically, in the Commonwealth of Massachusetts. The first two agencies derive their power from the NEPA and MEPA legislation. This mandate states that any public or private projects which may have a significant impact on the environment or require a state or federal permit are required to prepare an environmental impact report (MEPA) or statement (NEPA). The appropriate agency reviews these reports and circulates copies of the environmental impact reports to other agencies and the public.

Most development projects which will have any effect on the environment are carefully considered so that these effects may be

minimized. On the basis of the results and criteria of the environmental impact statements, equitable and intelligent decision making for land use and development may ensue.

The Coastal Zone Management Office within the Executive Office of Environmental Affairs was created under the auspices of the federal Coastal Zone Management Act of 1972. Its establishment evolved from a desire within the environmentalist community to regulate development within the coastal zone and direct attention to the unique environmental and aesthetic characteristics of the coastline. The CZM office accomplishes its environmental review mandate by what is known as a "federal consistency" review which involves the examination of any activities in the coastal zone which may have any effect on the area, i.e., NPDES permits, Outer Continental Shelf (OCS) leases to verify compliance with federal regulations. In the process of performing this function, the CZM office becomes involved in many federal, state, and local interagency relationships. To achieve the necessary cooperation and coordination, CZM follows what it terms the "networking" principle. The absence of definite jurisdictional limits for CZM, allows the CZM office to act as a "facilitator" between state agencies, i.e., DEQE (regulatory) and DEM (management and planning). CZM's placement within the Executive Office of Environmental Affairs allows it to make budget decisions over some of the subordinate departments, i.e., DEM, DEQE, and thus influence their cooperation.

In addition, an attribute of the CZM program which sometimes proves to be an important asset is its flexibility. Unlike other government agencies which are staffed by civil service employees, the CZM office can hire and fire as needs come and go, corresponding to the current direction of the program. This factor can, on the one hand, enhance the office's

ability to react to situations as they occur, but on the other, contributes to poor morale. The CZM office also retains certain freedom with the allocation of its funds. Its budget may be apportioned to reflect the needs of coastal towns and cities, a benefit to some and a problem for those looking for consistency and accountability.*

The aforementioned agencies are the key participants in the environmental protection function of the Commonwealth. Without their input, there is always the possibility that projects may not meet the standards which have been set to protect the air, water, and land resources. However, the environmental review process, as mandated by the National Environmental Policy Act, Massachusetts Environmental Policy Act, and the Coastal Zone Management Act may very well be another case of repetitive effort. The coordination has markedly improved over the past years between EPA, which directs the NEPA policy, and EOEA, which is responsible for the corresponding MEPA program. A development project will require one review or the other if it is anticipated that certain environmental standards may not be met. Usually the application of either review is dependent upon federal or state funding and involvement, and the permit being requested. Fortunately, the duplication problem is being avoided in this case by the agencies' (EPA, EOEA/MEPA) careful analysis of the process and a desire to avoid duplication.

However, the same is not true of the coordination interrelationship of the MEPA review office and the Coastal Zone office, both of which reside under the authority of the Executive Office of Environmental Affairs. Under certain circumstances, which may involve non-adherence to specified MEPA standards, a project may be deemed by MEPA capable of "an effect on the coastal zone".

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*For further elaboration of the role of the Massachusetts office of the Coastal Zone Management, see 4 June letter in Appendix I.

Ordinarily, this instance occurs when activities are presumed to be above MEPA designated criteria limits or subject to an unappealed Wetland Order of Conditions by a conservation commission or subject to MEPA review. In this case, the Coastal Zone office commences its own form of review, under the federal consistency mandate. This process explores the consistency of the proposed action with the present governing legislation for the coastal zone. This procedure, while initiated well after the application has gone its designated route, serves to lengthen the delays and exacerbate the coordination problem which already plagues state environmental administrators. While attempts are made to open lines of communication and take notice of the obvious working relationship which the law requires, this problem still persists to some extent.

In addition to formulating comparable statutes, Massachusetts has created many agencies to assume the responsibilities of administration, implementation and enforcement. However, in order to hasten the adjustment and enact the legislation as quickly as possible, attention to the implications of the formation of new authorities was often lacking. Generally, the new agencies created corresponded directly to the legislative committee which recommended them. The possibility of bestowing new powers to existing agencies or consolidating several agencies was often overlooked. The resulting problem is proliferation of authoritative agencies, and in addition, a further exacerbation of the "vertical" separation of power. A complete and balanced view of resource management cannot be effectively attained when, for the most part, the agencies hold separate and distinct viewpoints and interests in the Harbor. Collective and common objectives are crucial to the development of the Harbor as a whole.

For example, in the Executive Office of Environmental Affairs (EOEA) alone, there is the Division of Water Resources within the Department of Environmental Management; the Division of Water Supply, the Division of Water Pollution Control, and the Division of Waterways all within the Department of Environmental Quality Engineering; and the Division of Water within the Metropolitan District Commission. Undoubtedly, each of these authorities performs an important function, but this functional management approach lacks the overall perspective that one consolidated water resource agency could provide. This situation can also confuse development procedures when the inevitable uncertainty of jurisdictional limits occurs.

It should be noted, however, that a water resources commission, a water policy group made up of agency and public representatives and co-chaired by DEM and DEQE has been established for coordination purposes.

Also, the example of the Wetlands Protection Act (inland and coastal) is useful in demonstrating the fragmentation of responsibility which arises because of the proliferation of agencies. Within the Department of Environmental Management exists the Wetlands Restriction Program whose responsibility is to protect wetlands by identifying and delineating wetlands areas and attaching development restrictions to deeds. Responding to the need for a regulatory permitting authority for this program, the Division of Wetlands within DEQE gained the responsibility of protecting these wetlands by requiring prospective developers to complete a comprehensive application. This process originates with the local conservation commissions of the affected wetland area who have singular responsibility if no appeal occurs. However, total responsibility for protecting the wetlands does not belong to

any one authority unless appeal occurs to DEQE, and, therefore, the necessary coordination of administration and uniform enforcement is often absent.

In a report compiled by the Governor's Commission to simplify rules and regulations, it was stated that there are "351 local governments whose boards and commissions issue permits that regulate land use." The second chart of this report reiterates such proliferation with a listing of 21 distinct agencies (state, federal, local) which participate in the permitting procedure. The coordination of this highly complex and diversified system is not an easy task by any means. Nevertheless, the Commonwealth of Massachusetts has made commendable progress in the resolution of this issue. Upon completion of an in depth analysis of the permitting network, initiated by Executive Order #155, a Development Permit Assistance Program was established under the auspices of the Governor's Development Office. The purpose of this directive was the creation of a single source of information for all state permitting necessary to the development process. At this one location, applicants are able to obtain current information on applicable permits, regulations and procedures for development projects. In addition to permit information, the staff also provides information relative to state financing, incentive programs, development opportunities, and sites available throughout the state.

In addition, all the permits required for a given project can now be identified at the outset by means of a permit identification form. The Office then monitors the identified permits through the review process so that prescribed time schedules are met and delays minimized. Public hearings and comment periods are coordinated so as to be as concurrent as

possible. Potential conflicts are even resolved early in the application process when the situation allows.

This program is an answer to many of the managerial inefficiencies which have gradually developed and impeded the general permitting process. However, the success of this program is heavily dependent on both its implementation and its availability to potential developers and the public as a whole. The latter of these two characteristics appears to be lacking in the Governor's Development Office, particularly in the Harbor. Although this Permit Assistance Program seems like the panacea which will ease permitting difficulties, most prospective developers are unaware of its existence. Its recent establishment warrants thorough and far reaching publicity for the necessary public exposure.

Additionally, when it has been successfully employed as a permit "expediter" its area of involvement has been outside of the Boston Harbor region. This Development Office could become a key stimulant or at least a facilitator of development in the Harbor if its beneficial services were fully utilized and its personnel increased to meet the need.

An important aspect of managing land and water resources is the maintenance of favorable environmental quality. In Massachusetts, the chief state agency responsible for this objective is the Executive Office of Environmental Affairs. Under its direction are the Departments of Environmental Quality Engineering, Environmental Management , Fisheries, Wildlife and Recreational Vehicles, Food and Agriculture and the Metropolitan District Commission, as well as the offices of Coastal Zone Management, Conservation Services, Law Enforcement, Massachusetts Environmental Policy Act and Review and Policy and Management Analysis. The administration of such a variety of agencies with a multitude of environmental duties and

objectives is not a simple one. The task is not made any simpler when a particular segment of EOEA, e.g., Metropolitan District Commission, carries a great deal more influence in development proposals because of its greater budget allocation from the legislature. The Executive Office of Environmental Affair's difficulty in handling the multitude of environmental issues confronting it is its inability to include an incentive system in its often inhibiting framework. In other words, the only device with which they can carry out their mandate is a stringent permitting process. By assuring permits are properly conditioned they can achieve the desired environmental standards which are necessary to uphold. However, the unfortunate and inevitable side effect of this approach is the gradual decline in project proposals, because of the anticipated costs and delays. What is needed is a key linkage between environmental protectionist policies and financial incentive/economic growth policies so that a reasonable equilibrium may be attained. The point of connection for this linkage would be particularly advantageous between EOEA and the Executive Office of Communities and Development which already offers a complete package of financial incentives for prospective urban and communities developers.

Effective management has been impeded in EOEA as individual responsibilities have been distributed among too many departments and divisions. The apportionment of tasks has created a situation of fragmentation of authority, each separate division accepting responsibility for its own narrow scope of interest or funding. Again, this is a problem where consolidation of authority and the establishment of well-placed linkages could facilitate a broadened perspective of environmental issues and thus, allow faster review processes, comprehensive planning and more efficient program implementation.

These linkages would ideally encompass the concept of interagency relationships, particularly in gaining complete managerial control over water resources. The interaction relationship should be supplemented with an appropriate interagency task force or where possible, increased attention to the interaction within the existing agencies may be sufficient. These linkages should be applied to local/state activities, state/federal activities as well as any internal state, federal, or local processes which lack the ability to coordinate their internal affairs. Memos of understanding, however often used, are not adequate long-term solutions.

Boston Harbor as a single entity can claim responsibility for the economic growth of Boston and its environs. It could be an area which offers the public unusual benefits and opportunities. It could become an enviable locale drawing and serving publics from all over this region. In the past, attention was paid to water-dependent activities and commercial transportation. The Harbor offers us a resource which is unavailable in much of the Commonwealth or in all of New England and it is up to the managers, planners, and decision-makers of Massachusetts to utilize its full economic and recereational potential for the betterment of society. If state and federal agencies continue to ignore the impact that land development has on the use of the Harbor, its full capabilities may never be achieved.

It is apparent that there is totally lacking from this framework an entity which has power and interest to oversee the Harbor's activities both for the sake of assuring the effective use and development and to protect the public's interests in an accountable way.

IV CHANGES UNDERWAY

A. Newly Enacted Programs to Address Jurisdictional Problems

The previous chapter indicates it is apparent that the Boston Harbor management structure lacks certain fundamental strengths which would foster healthy economic development. However, many of these weaknesses have been identified by state and federal authorities and thoughtful remedies have been proposed and implemented. Below is a brief paraphrasing of these proposals and the manner in which they address and resolve particular jurisdictional shortcomings. These proposals were developed by the Governor's Commission on Rules and Regulations, DEQE Advisory Committee, and Executive Order.

1. Executive Order #167 August 28, 1979

A) Establish Development Permit Assistance within the Governor's Development Office to aid major development projects in Commonwealth with the permit and licensing process.

This program provides information and coordination for the agencies and the developers to ensure a timely process. This is a step to achieve expeditious state action and avoid delay while the Commission's study to Simplify Rules and Regulations continues.*

B) Within each Secretariat, the Secretariat designates one person to serve as a coordinator of permitting within that Secretariat in order to ensure responsive actions to normal permit requests.

This recommendation is an attempt to facilitate efficient cooperation within individual agencies, lessening the chances of jurisdictional overlap and unnecessary duplication of effort. If the designated "coordinator" was able to encourage expeditious handling of environmental reviews, and permit applications, the overall development process could be hastened.

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*See discussion of permitting problems, in previous section.

C) Before submitting an application for federal funds or programs, the state agency which is applying shall, upon the request of the Office of Development Permit Assistance, disclose in writing to that Office the nature and details of any regulatory obligations which the state would take on by accepting such funds or participating in such programs. Any state agency applying for federal funds shall indicate on its "Notice of Intent" form filed with the State Clearinghouse (pursuant to OMB Circular A-95) whether or not the proposed project or program for which federal funds are being sought will have impact on the regulations of development in the Commonwealth.

D) At least thirty days before any state agency action to adopt, repeal, or amend its regulations pursuant to G.L. C.30A s.2,3, that agency shall submit a copy of such proposed action to the appropriate cabinet secretary and to the Office of Development Permit Assistance.

E) Proposals for adoption, amendment or repeal of regulations shall contain explanatory comments clearly detailing the scope and intent of such agency action. This explanation shall also include a designation of local, federal and other state rules and regulations concerning the same subject or area and shall briefly explain how the proposed action interacts with these other rules and regulations.

The aforementioned proposals also address the issue that arises when actions by state agencies are taken without due notice to the existing regulatory framework. In order to avoid the inevitable inconsistencies that this manner of decision making may induce, the King administration has required all state authorities to examine their regulatory proposals and determine the interrelationship, if any, with the present code of regulations. In addition, the Office of Permit Development Assistance has been authorized to review these regulatory proposals and confirm their validity.

2. Executive Order #168 August 28, 1979

Requiring the Cooperation of all State Permitting Agencies for Collection of Certain Data

A) Each state agency required to renew, approve, or grant permits for economic development projects shall submit to the Commission on Rules and Regulations on or before September 15, 1979 a list of all types of reviews, approvals and permits administered by this agency. Specific application forms, applicable agency regulations and/or rules, and the time period usually required for permit application consideration, based on experience and statutory or regulatory requirements, shall be included in the report of each agency.

B) Each permit granting agency shall evaluate its rules, regulations, criteria, standards, and overall policies guiding the issuance of permits. By October 15, 1979 each agency shall forward to the Commission on Rules and Regulations a written narrative of this evaluation which should include identification, from the agencies' perspective, of the problems (lack of jurisdiction, duplication of effort between agencies, etc.) it faces in administering its permitting process. The narrative should also focus on the specific criteria and standards used by the agency in the process and whether these are formal or informal, written or oral. Agency suggestions for improvement of the process (apart from budget or staff increases) should similarly be included.

Executive Order #168 requires all state agencies to examine their jurisdictional powers and responsibilities for the purpose of evaluating the problems which affect the efficiency of the permitting process. By requiring the agencies themselves to address the permitting issue, the hidden or inherent flaws of the regulatory framework, with which state

officials are more familiar, may become evident and the appropriate remedies may be more easily devised.

This Executive Order also requires the state agencies to list in detail the specifics of their permitting processes. The Commission on Rules and Regulations, after reviewing these regulatory policies and processes, may be better equipped to identify the weaknesses and influence the agencies' adherence to the regulations (i.e. regulatory deadlines).

3. Division of Water Pollution Control Management

Environmental Bill H3448

Places the Division of Water Pollution Control under the direction of the Department of Environmental Quality Engineering. H3448 enables the Commissioner of DEQE to exercise supervisory and legal control over one of the most important Divisions within the Department.

The Division of Water Pollution Control has traditionally had direct control of their permitting processes (i.e. NPDES, Water Quality Certification), and to some extent, this has been reflected in a degree of inconsistency and lack of cooperation with the Department of Environmental Quality Engineering (DEQE) who is actually their bureaucratic superior. This enactment should serve to promote a synergistic effort between the two agencies and promote more effective environmental control.

4. Hazardous Waste Siting Bill

Guarantees local involvement in decisions to site hazardous waste disposal facilities. This is the first attempt by any state to resolve conflicts over the siting of hazardous waste facilities by insuring that communities which accept such facilities will receive incentives and compensations

for facility impacts.

As stated in the previous chapter, a public constituency is critical to an equitable planning process. The Hazardous Waste Siting Bill clearly represents an attempt to provide a voice for local communities in decisions and actions which affect their health and well being.

Additional activities underway to address some of the problems regarding the Harbor's waters include:

5. "Permitting Guidelines." Development of permitting guidelines under the energy issue to better manage progress.

6. "Management Coordination." A provision for coordinated management of water quality clean up of Boston Harbor. EOEA chairs regular meetings with MDC and DEQE and less frequent but regular meetings with other agencies such as CZM, DEM, Boston Water and Sewer Commission, EPA, as well as public interest groups like the Citizens' Advisory Committee.

B. Proposals to Address Jurisdictional Problems By Other Groups and Governing Units

7. "Permit Coordination Unit"to oversee state permit process (clearing-house). "Permit Coordination Unit" would notify state agencies having jurisdiction over a proposed project. The state agency would then have 14 days to acknowledge jurisdiction; failure to acknowledge would waive jurisdiction.

Additionally, agencies acknowledging jurisdiction would have 14 days from receipt of completed application to notify applicant of sufficency of application.

Consolidation of public hearings into one hearing.

Sixty days after public hearing, state agency must render final decision on issuance of permit.

The aforementioned recommendations could reduce the time, cost and confusion of the permitting process by simplifying the permitting procedure,

accelerating the decision-making,and making permit applications information available at one location.

8. "Regulatory Calendar"

Legislation would require an agency to give advance notification of any intent to promulgate new regulations in the so-called "Regulatory Calendar" (on or before April 15 or October 15 of each year).

Sixty days after notification, agency may proceed with procedure for promulgation as specified by MGL C 30 A.

The present system requires state agencies to hold a public hearing prior to enacting regulation. Usually the notice of public hearing is published only 21 days prior to public hearing which leaves interested parties little time to prepare substantiation for their position. Oftentimes 21 days is not sufficient to allow even interested parties to participate effectively.

9. "Official Documents Act" Provide for the presumption of validity of agency administrative action (review of permit applications, convening of public hearings, issuance or denial of permits and approvals).

Present uncertainties of validation of permits impede development by furthering costs and delays. This legislation would eliminate those who would seek further validation of authority of administrators.

10. "Cost/Benefit Analysis of Regulations." Incorporate this analysis into an agency's decision to promulgate new regulations.

Regulations oftentimes have far-reaching implications (economic and social) which usually are not fully considered. This recommendation identifies this issue and ensures that the state agencies recognize the effects of their decisions and actions. Overlaps, gaps and inefficiencies in jurisdictional limits may be lessened by directing attention to their cause.

11. "Massachusetts Regulatory Council" is comprised of secretaries of each secretariat for the purpose of reviewing and coordinating promulgation of proposed regulations.

This council should provide the necessary communication which would insure that jurisdictional overlap could be reduced.

The scope of new regulations will be interpreted by a summary which will include subject matter and intent and purpose of proposed regulation.

12. Prompt Review of Permit Applications

Strict adherence to provision of MGL c30s62D which requires a maximum 90 day review period for permit applications.

The existing permitting processes, which often present a major constraint on a developer's plans because of their costly duration, have been identified by this recommendation. By requiring the state agencies' cooperation with the existing deadlines, a more expeditious process may be facilitated.

13. Consolidation of Water and Land Use Permits Under DEQE

Permits related to water supply, water use, water pollution control and wetlands should be consolidated under authority of DEQE.

Develop single permit application form with separable components for permits not affected by all authorities.

The multitude of environmental permits that confront him/her is an obvious deterrent to a potential developer. The Governor's Commission on Rules and Regulations has fully examined this problem and has discovered that a consolidated permit application with a unified single authority overseeing its procedure is the most effective method of resolving the permitting confusion. Under a consolidated permit program, the applicant is able to attain all his state permits with one application, and theoretically in less time than the existing process. This consolidation would make possible concurrent reviews and hearings and would facilitate permit monitoring.

14. Streamline Role in Permitting

Present functions and permit authorities of Division of Waterways should be reviewed by EOEA and revised to abolish duplicative state or local reviews (i.e., 1) waterway permits for construction activities c91 s12A [Chapter 91 Waterways license] which duplicate Wetlands Protection Act functions. 2) Return waterways functions such as dam inspection and state pier operation to Department of Public Works.) As mentioned before in the preceding chapter, the duplicative effort of the Division of Waterways Chapter 91 Waterways License and the conservation commissions' Wetland Order of Conditions is a direct result of the similarity of scope of the two permitting processes. This recommendation, if carefully implemented to consider the diverse constituencies involved, should reduce the delays unnecessarily caused by overlapping jurisdiction.

15. Wetlands Protection Act

In March 1979, the Commissioner of DEQE organized a task force to revise Wetlands Protection Act regulations.

House Resolve #6335 established a commission to conduct a similar investigation. The DEQE Task Force was subsequently terminated. The Commission established by the House Resolve was assigned to:

1) Investigate alternative procedures which might streamline time required for wetland application processing.

2) Consider transfer of wetlands authority (c 131 s40) to cities and towns.

3) Investigate development of guidelines and criteria for development of wetlands regulations.

4) Investigate policies for creating a positive economic climate for development while still insuring protection of wetlands.

- Appeal procedures and time for DEQE review should be reduced from its present 70 day duration.

- Legal standing for appeals should be limited to the applicant, an abuttor or an aggrieved party. Present legislation allows any 10 citizens to appeal. Legislation should be modified to specify that the appeal must show direct or indirect damage of the type that the Act is supposed to prevent.

The Wetlands Protection Act and its corresponding permit, the Wetlands Order of Conditions, is a fundamental prerequisite for many of the environmental permits under the supervision of DEQE. Following this statement is the premise that if the permitting process is unwieldy the origin of this problem will be the origin of the process.* It is in this frame of mind that the Commission on Rules and Regulations focused some attention on the streamlining of the Wetlands Protection Act.

16. River and Wetlands Restriction Programs

Coastal Wetlands Restriction Program - MGL C130 S105

Inlands Wetlands Restriction Program - MGL C130 S40A

Scenic and Recreational Rivers Act - MGL C21 S17B

These programs are presently administered by DEM in EOEA. In order to expedite the delineation of wetlands statewide, it is suggested that the restriction programs be transferred from DEM to DEQE. This transferral of authority will allow administration and enforcement of all state wetland regulations by one agency.

No development permits are associated with these programs.

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*The "unwieldy" nature of the permitting process is an interpretation dependent upon the beholder, be they developer or civil servant, and represents a broad range of human values inherent in governing.

17. Massachusetts Environmental Policy Act (MEPA) 1973

Development projects which significantly affect the environment should be carefully scrutinized under MEPA review. However, some environmentally sound projects are subject to MEPA review simply because of their physical size (i.e.1) non-residential projects, subject to MEPA, present threshold size - 25,000 ft^2 gross interior floor space 2)residential projects threshold - 50 units, 100 units or 200 units depending on the case).

It is advised that these particular MEPA regulations be revised to exempt minimally polluting businesses and industries which otherwise would be included because of physical size.

18. Massachusetts Environmental Policy Act (MEPA)

Steps should be taken to formalize a negotiation procedure within MEPA process for appropriate cases which would allow the applicant to continue preliminary work and seek and have action taken on state and local permits before EIR is completed. This expeditious handling of the environmental review process will provide incentives for developers to continue their plans in a cooperative atmosphere.

During the Environmental Impact Report (EIR) process, it may be possible to determine if a certain project may be built, if certain environmental safeguards are included. (i.e. design modifications, technological innovations, scaling down of project).

19. MEPA and Wetlands Protection Act

Under the Wetlands Protection Act (MGL C131 s40), local conservation commissions can issue an Order of Conditions controlling activities on lands subject to the Act. If an applicant finds the commission's decision

unjustifiable, he/she may appeal for a Superseding Order of Conditions from DEQE. This appellate process will compel the applicant to become involved in the MEPA process also. The delay encountered by this involvement can be as much as 5 months for a minor project (ENF) or 6 to 9 months for a major project (EIR).

-Therefore, if an applicant appeals a local conservation commission's Order of Conditions, the appeal should not trigger MEPA review.

- A DEQE Superseding Order of Condition upholding the conservation commissions decision should not trigger MEPA review.

- Legal standing to appeal should be limited to applicant, an abuttor or aggrieved party. Ten Residents clause should be modified to specify that the appeal must show direct or indirect damage of the type prevented by Act.

Wastewater Management

EPA

EOEA

DWPC - 303e plan

MDC

MAPC - 208 plan

20. Comprehensive Planning for Clean Water

"Level B" studies are required under P.L. 92-500 as part of Comprehensive Planning Process for each major basin in country. (i.e. SENE - Southeastern New England Boston)

Many recommendations concerning water supply, water quality, growth management, recreation, flooding, coastal zone and facility location were developed under SENE. However, the planning process seemed to terminate

with the publication of the report. Implementation of the recommendations has been lacking.

Every attempt should be made to aid implementation. EPA does set certain standards for 208 plans (Areawide planning - S208 of PL 92-500) implementation. Some consistency requirements between "Level B" studies and 208 plans might aid the planning process.

21. Regional Wastewater Management Planning

The focus of 208 planning projects (MAPC) has been largely on structural solutions as the most effective means of implementation. 208 planning, although terminated, should have continued but it should have directed its attention towards long-range and areawide issues i.e., growth management, water supply, urban runoff control (for more than single communities) and non-point sources. EPA should be encouraged to support town initiatives to develop nonstructural solutions by offering planning grants. "Level B" studies could set the major goals, and individual studies could set the major goals, and individual studies funded by EPA could focus on specific areawide and nonstructural solutions under Section 208. However, these federal funds will be terminated in the Commonwealth by June, 1982, an unfortunate situation.

22. DEQE Advisory Committee Recommendations

- Office of Program Planning and Policy Coordination
- Consolidate all DEQE divisions into one building
- DWPC under direct supervision of Commissioner of DEQE
- Consolidate Regional Office of DWPC with existing DEQE Regional Offices
- Combine Wetlands and Waterways and develop single application form covering requirements of both programs
- Repeal c91 S 12A

  [limit Waterways jurisdiction to traditionally navigable water bodies]

- Eliminate sewer extension permits for projects previously approved through DWPC construction grants.
- Study methods for instituting a regular employee reward/recognition program.
- Program for cross-training of personnel of increasing capabilities in various programs. (Already begun.)
- Establish permit tracking system. (Been completed.)

The Department of Environmental Quality Engineering Advisory Committee has developed the above recommendations to be incorporated in the final report of the Governor's Commission on Rules and Regulations. The intent of these proposals is to enable DEQE to institute improvements in its management and operation of environmental regulatory responsibilities and to facilitate an efficient permitting process.

23. Consolidation of Permit Applications

As of June 14, 1979, EPA established a consolidated permit application program. This application will be utilized by permit applicants for the NPDES, Hazardous Waste Management, Underground Injection Control and Prevention of Significant Deterioration permit programs.

- The form will be utilized by any facility applying to EPA for a permit under any of these 4 programs.

- Questions common to all permit programs are in one part of the application form (Form 1) so that applicants will not have to report any information to EPA more than once.

- Questions relating to each specific permit are in separate forms (Forms 2-5) so that applicants will not have to report any information which is not relevant to getting the specific permit it needs.

In developing the consolidated permit applications form, EPA has attempted to consider all of the following:

- Avoid asking for information more than once.

- Avoid asking for information EPA does not need to know to write an appropriate permit.

- Assure that EPA obtains essential information to write permits and to protect the public against the introduction of harmful pollutants into the environment.

C. Local Regulatory Reforms Proposed

24. Unify Local Permit Information

Governor's Development Office and Executive Office of Communities and Development cooperate with Massachusetts Municipal Association, the Massachusetts League of Women Voters and 13 Regional Planning Agencies in providing technical assistance to communities which are interested in unifying local permit procedure information.

By streamlining the permitting process at the local level, local development (i.e. marinas) can be fostered. Not only will the length of the overall permitting process be reduced but the necessary and often lacking local community participation in decision making processes may be facilitated.

Consolidate public hearings at the local level to expedite local permit reviews and procedures.

Limit time for review and action on local permits to 60 days.

25. Construction Code Reorganization

Executive Office of Communities and Development is directed to draft and file legislation to consolidate all construction codes, boards and inspectors under the authority and control of the Secretary of the Department of Communities and Development.

26. Construction Codes Conflict Resolution

Building Code Commission should be given clear, unqualified authority to resolve conflicts between building and specialized codes. Technical Code Council (within Building Code Commission) should hire consultant to review State Building Code and various specialty codes.

27. Subsurface Sewage Disposal

DEQE should revise Title V of Environmental Code to reflect maximum standards code-uniform throughout Commonwealth.

Exceptions to this code are appealable to DEQE, pending scientific proof related to protection of public health.

28. Technical Assistance (Title V)

Governor should direct DEQE to disseminate the results of USGS concerning groundwater testing to all local boards of health.

29. Technical Assistance

Special funding from Governor's budget recommendations for DEQE to provide technical assistance, upon request, to local boards of health in FY 1981 State Budget.

D. Regulatory Reform at Federal Level Proposed

Governor and Massachusetts Congressional Delegation should draft joint statement supporting President's efforts for regulatory reform at federal levels.

- Require joint executive/legislative review of all new federal regulations prior to issuance and the elimination or consolidation of existing regulations.

- Require annual performance reviews, justification of need and increased accountability for all federal regulatory agencies.

- Establish default provisions for agency reviews after reasonable time periods.

- Provide opportunity for concurrent review periods and hearing schedules.

- Delegate to states those permit authorities that can be handled more efficiently at state or regional level.

Agency	Legislative Mandate	Powers and Responsibilities	Permit
Federal Agencies			
Department of Housing and Urban Development	National Flood Insurance Act		National flood insurance
National Marine Fisheries Service			Fish spawning protection
U.S. Fish and Wildlife Department			Wildlife habitat protection

Agency	Legislative Mandate	Powers and Responsibilities	Permits
U.S. Coast Guard		1. Search and rescue operations 2. Law enforcement 3. Aids to navigation 4. Port security 5. Pollution 6. Regulations and inspections for LNG and oil tankers 7. Clean-up of pollution 8. Regulation of ship-based sewage	A. Intercoastal navigation B. Approval for some MDC construction grants

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Environmental Protection Agency (EPA)	A. Resource Conservation and Recovery Act (RCRA) (1976) (42 USC, S 6901)	A. Establish permit requirements for EPA-administered RCRA, UIC, and NPDES programs and state program requirements for RCRA, UIC, NPDES and "404" state-administered programs; establish procedures for decision making	A. Hazardous Waste Management Program
	B. Safe Drinking Water Act (SDWA) (42 USC, S 300f)		B. Underground Injection Program (UIC)
	C. Clean Water Act (CWA) (33 USC, S 1251)		C. NPDES
	D. Clean Water Act (CWA) (33 USC, S 1251)		D. Dredge or Fill Program "404"
	E. Clean Air Act (CAA) (42 USC, S 7401)		E. Prevention of Significant Deterioration (PSD)
	F. Amendment to Ocean Dumping Act (1977)	F. Responsible for restriction of sewage sludge into ocean waters by 31 December 1981	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
U.S. Army Corps of Engineers	U.S. Codes 403, 320-9 Section 10: Rivers and Harbors Act of 1899 Permit for Alteration of Navigable Waters Section 404: Federal Water Pollution Control Act Section 103: Marine Protection, Research & Sanctuaries Act of 1972	A. Authorized to permit and prohibit any structures or work affecting the navigable waters of the U.S. B. Authorized to permit discharge or dredged material or fill material in the waters of the U.S. C. Authorized to issue permits covering transportation of dredged material for the purpose of dumping it into ocean waters	A. "Section 10" Permit B. "Section 404" Permit C. "Section 103" Permit D. Approval in some MDC Permits

Agency	Legislative Mandate	Responsibilities and Powers	Permits
State Agencies			
EOEA	MGLc21A s,3,5,7, 8-11,13-18	1. Determine consistency with Massachusetts Coastal Zone Management regulations	1. Involved in any federal or state licensing which affects land or water in coastal zone
Coastal Zone Management Office	22,23,25,27,28	2. Involved with activities a. Federal agency or development projects in coastal zone b. Activities in land or water of coastal zone which require federal or state permit c. Department of Interior activities of exploration, development, or production in leased land on OCS d. Activities subject to federal assistance under federal programs submitted state and local governments	2. Any permitting processes involved with those activities * CZM is only involved with determining consistency, not a permitting authority Applicant must submit consistency determination if the proposed activity is determined to have "any effects" on coastal zone "Effects" are presumed for activities above MEPA thresholds and subject to unappealed Order of Conditions by a conservation commission or subject to MEPA review
		3. Coordinate and manage the activities of all state agencies which affect the coastal zone of the state to assure that the State Environmental Policies which are the CZM policies are carried out by state agencies in their permitting activities as well as in the activities they undertake	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
EOEA (continued)			
Massachusetts Environmental Policy Act and Review [MEPA and Review]	Massachusetts Environmental Policy Act (MEPA) MGL C30 S 62-62H	A. Requires an environmental impact statement for public and private projects which include 1) activities receiving financial assistance from state agencies; 2) activities requiring permits from state agencies. B. Circulation of environmental impact statements to other agencies and the public C. The approval is required by activities conducted by state agencies, activities receiving financial assistance from state agencies and activities requirements from state agencies D. Requires the publication of Notice of Intent, completion of an environmental Notification Form and filing with the Secretary of EOEA	1. Wetland Order of Conditions 2. Chapter 91 Waterways License 3. Dredging and disposal of dredged material 4. Mineral extraction from land under coastal waters 5. Construction and maintenance of dams 6. Approval of waste disposal facility 7. Hazardous Waste License 8. Discharge to Ground Permit 9. Industrial waste treatment facilities 10. NPDES 11. Marine Oil Terminal License 12. Approval of sewer extension and/or connection 13. Approval to construct a new source of air contaminants 14. Public Water System Permit 15. Cross-connection Permit

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Massachusetts Environmental Policy Act and Review (continued)			16. Approval of subsurface sewage disposal facilities 17. Approval of septage disposal facility 18. MDC construction grants where MEPA thresholds are met N.B. All the above have specific criteria for application of MEPA

Agency	Legislative Mandate	Responsibilities and Powers	Permits
DEQE	A. MGL C 91, SS 12-23 (Waterways Permit)	Department must act:	A. Chapter 91 Waterways License
	B. MGL C 21A, S 4; C 91, S 2, 52-5	1. Within 90 days after compliance with MEPA GLC 30, S 62D	B. Dredging and disposal of dredged material
	C. MGL C 21, S 54-6	2. Within 70 days for Superseding Order of Conditions GLC 131, S 40	C. Mineral extraction from land under coastal waters
	D. MGL C 253, S 44-50 (amended)	3. Within 60 days for Air Pollution Control regulations 310 CMR 7:02(2)	D. Construction and maintenance of dams
	E. MGL C 91, S 46-48, 50		E. Breaking up of vessels (appeal)
	F. MGL C 111, S 5G (compliance with Federal Safe Drinking Water Act		F. Public water system permit
	G. MGL C 111, S 160A		G. Cross-connection permit
	H. MGL C 21A, S 13		H. Approval of subsurface sewage disposal facilities (>15,000 gal/day)
	I. MGL C 111, S 17; C 21A, S 13		I. Approval of septage disposal facilities
	J. MGL C 111 S150 A		J. Approval of waste disposal facilities
	K. Wetland Protection Act (1972)		K. Wetland Order of Conditions (appeal) (superseding)
	L. MGL C 212 (Massachusetts Hazardous Waste Management Act) (1979); RCRA (42 USC 3251)		L. Hazardous Waste License
Division of Solid Waste Disposal	MGL C 111, S150A		1. Assignment of a refuse disposal site for agencies of the Commonwealth
			2. Appeal of an Assignment of Site for a solid waste waste facility
			3. Solid waste disposal facility

Agency	Legislative Mandate	Responsibilities and Powers	Permits
EOEA DEQE (continued)			
Division of Waterways	MGL C 91, S 1-59 (Waterways Program)	1. May excavate and dredge in Boston Harbor wherever public convenience requires "Boston Harbor" - that part of the harbor lying westerly and inside of a line drawn between Point Allerton on the south and Shirley on the north 2. Shall have immediate charge of lands owned or acquired by the Commonwealth upon or adjacent to Boston Harbor waterfront except for land under the control of MDC 3. In charge of construction of piers and other public works in the harbor other than those under the control of DEM or MDC 4. Shall, with the consent of Governor and Council, acquire by purchase or eminent domain property for the purpose of constructing or securing piers in connection with highways, waterways, railroad connections, storage yards, and public warehouses 5. May license and prescribe terms for construction or extension of a wharf, pier, dam, seawall, road, bridge, or other structure, or for the filling of lands or flats, or the driving of piles in/over tide water below mean high water mark in coastal waters, in tidal and non-tidal rivers and streams and in great ponds.	1. Chapter 91 Waterways License 2. Dredging and Disposal of Dredged Material Permit 3. Mineral extraction from land under coastal waters

Agency	Legislative Mandate	Responsibilities and Powers	Permits
DEQE (continued)		6. Massport must comply with Chapter 91 Waterways License but they are exempt from license fees	
		7. Jurisdiction over any river, stream, or great pond which public money was spent on for license	4. Approval in some MDC permits
		8. Ensure that navigable waters remain unobstructed and that the public's safety and right to access and use is not infringed upon by any structure or activity within program jurisdiction	
		9. Maintain and improve shores, rivers, streams and ponds in the Commonwealth	
		10. Act as coordinator for the state permit granting process	
		11. Interface with the Division of Water Pollution Control for Water Quality Certification	
		12. Waits for other state permits to be granted before acting, i.e. MEPA approval, Water Quality Certification and Order of Conditions	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
EOEA DWPC (DEQE)	A. MGL C 21, S 43 (Discharge to Ground); C 111, S 17 B. MGL C 21, S 27 (12) (Massachusetts Water Quality Standards); Federal Water Pollution Control Act C. MGL C 21, S 27 (13) (Massachusetts Water Quality Standards) D. MGL C 21, S 43 (Massachusetts Water Quality Standards) E. MGL C 21, S 50-50A F. MGL C 21, S 43	1. Approve reports and plans of abatement facilities 2. Inspect construction of abatement facilities 3. Designate water abatement districts for establishment of district commission with approval of water resources commission 4. May enlarge water abatement districts with approval of water resources commission 5. Authorize city, town, special district or district commission to construct, own, separate, extend, or improve abatement facilities; to apply for Commonwealth financial assistance 6. Direct planning to maximize federal reimbursement and minimize cost to Commonwealth 7. May grant district funds for capital outlay 8. Shall supervise operation and maintenance of facilities 9. Shall provide for research and demonstration projects 10. Shall contract for development of comprehensive river basin water quality management or waste treatment plans 11. Adopt standards of H_2O quality	A. Ground water permit B. Water quality certification (insures that Federally licensed or permitted projects meet State water quality standards and related requirements as well as applicable Federal effluent limitations and standards) C. Approval of new industrial waste water treatment facilities or significant modifications of existing facilities D. NPDES (joint program with EPA) E. Marine Oil Terminal License F. Approval of sewer extension and/or connections

Agency	Legislative Mandate	Responsibilities and Powers	Permits
DWPC (continued)		12. Prescribe limits, permits, and procedures for pollution disposal	
		13. Regulate cleanup of Boston Harbor by MDC	
		14. Adoption and ammendment of rules and regulations	
		15. Insure that Federally licensed or permitted projects meet State water quality standards and related requirements as well as applicable Federal effluent limitations and standards	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
EOEA DEM	MGL C132A S 2A,2D,3 MGL C742 as amended	A. Authorized to acquire, develop and maintain state parks, forest recreation areas and reservations B. Responsible for acquisition, development and management of the Boston Harbor Islands for the purposes of recreation and conservation C. Assists in coordination of A-95 review (state clearinghouse) D. Responsible for updating of Statewide Comprehensive Outdoor Recreation Plan E. Administers preservation and protection of rivers and streams through deed restriction of certain alterations, developments, and activities within 100 yards of river or stream banks	Approval required for any public agency acquisition or public land sale, lease, use as a dump or refuse disposal area, sand or gravel deposition or for construction of any structure in, under or bordering Boston Harbor.
	C. Federal Heritage Conservation and Recreation Service		
	D. Massachusetts Scenic and Recreational Rivers Act (1971) MGL C21 S17B		

Agency	Legislative Mandate	Responsibilities and Powers	Permits
EOEA DEM (continued)			
Wetlands Restriction Program	A. MGL C 130, S 105 (Coastal Wetlands Restriction) as amended	A. Protect coastal wetlands through order restricting dredging, filling, alteration, or pollution of coastal areas, including salt marshes, tidal flats, and barrier beaches (mapping of wetlands and attaching development restrictions to deeds)	
	B. MGL C 131, S 40A (Inland Wetlands Restriction) as amended	B. Restrict by orders of alteration and pollution of flood plains or inland wetlands	
	C. MGL C 131, S 40A (Inland Wetlands Restriction) as amended	C. Responsible for the identification and delineation of areas included in coastal and inland protection program except for those in designated port areas, those under MDC control, and portions of barrier beaches	
Bureau of Solid Waste Disposal	MGL C 21A, S 2 as amended	1. Responsible for planning, organization, implementation, and administration of regional solid waste management program 2. Responsible for identification, evaluation, selection, and implementation of resource recovery alternatives	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
EOEA DEM (continued)			
Division of Water Resources		1. Provide technical representation on interstate, statewide, and regional water supply studies (including those conducted by New England River Basins Commission and U.S. Army Corps of Engineers) 2. Conduct ground water favorability studies in various river basins in cooperation with USGS	
Water Resources Commission	MGL C 21, S 39, 8, 12-15 (Watershed Protection and Flood Prevention Act) as amended	1. Contracting authority for construction 2. Supervises Division of Water Resources 3. Responsible for watersheds, water systems, storage basins, underground and surface water supplies 4. Construct or expand reservoirs 5. May acquire land for construction by eminent domain, purchase, gift, or land and water rights for protection of future water needs of Commonwealth 6. Coordinating authority with USGS 7. Grants assistance to localities for recurrent water supply problems	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
EOEA Metropolitan District Commission (MDC)	1919 Consolidation of Metropolitan Parks District and Metropolitan Water Board (MGL C 21, S 30) Federal Water Pollution Control Act A. MGL C 92, 95 B. MGL C 92 (1972), or as amended MGL C 705, S 12 (1975) C. MGL 92, S 102 D. MGL C 92; C 814 (1975) E. MGL C 92, S 1 and 32 F. MGL C 92, S 95 G. MGL C 92, S 95 H. MGL C 92; C 814 (1975) I. MGL C 92, S 10 J. MGL C 92, S 12, 13	1. Manage, control, and supervise abatement facilities 2. Construct, acquire, improve, maintain, and operate abatement facilities in metropolitan Boston area 3. Pollution control, reservoir maintenance, sewer system maintenance 4. Acquire and develop recreational parks and reservations 5. Commitment for Boston Harbor cleanup (elimination of discharge of sludge) 6. Power of eminent domain 7. Power to issue bonds and notes 8. May acquire financial assistance from federal government or Commonwealth 9. Shall adopt by-laws and regulations for the conduct of its affairs 10. May acquire, dispose of, and encumber real and personal property for purposes of District 11. Construction of sewerage projects requires approval of DWPC (MGL C 21, S 27)	A. Construction with an MDC Easement or near MDC mains B. Industrial User Discharge Permit C. Maintenance permits of existing of existing utilities--drains, water, sewer, gas, electric, telephone D. Municipal service connection E. Municipal services: water F. Overweight or oversize loads G. Roadway/sidewalk construction and occupation H. Special connection I. Surface water drainage disposal or discharge J. Utility installation permits: gas, electric, telephone

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Department of Public Utilities	Public Utilities Laws (MGL C 159B)	2. Electric supply and communication lines, underground electric supply, etc. (regs) 3. LPG plants (regs) 4. Oil gas production plants (construction, reconstruction, and maintenance)	1. License for transportation of hazardous waste

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Energy Facilities Siting Council Sec. of Administration Sec. of Consumer Affairs Sec. of EOEA Sec. of Manpower Affairs and five others	MGL C 164, S 69 H-R	1. Adopt and publish rules and regulations consistent with purpose 2. Accept certificates of E.I. 3. Conduct public hearings 4. Make recommendations 5. Issue or deny approvals of long range plans for electric, gas, or oil facilities 6. Review NPDES application and notify appropriate government agencies of application 7. Electric or gas companies may petition to exercise power of eminent domain	

Agency	Legislative Mandate	Powers and Responsibilities	Permits
Department of Commerce and Development	CMR 420: 2 MGL C 400, S 12	Financial incentives 1. Massachusetts Business Development Corporation (MBDC) 2. Massachusetts Community Development Finance Corporation 3. Massachusetts Small Business Purchasing Program 4. Massachusetts Industrial Finance Agency 5. Industrial Mortgage Insurance 6. Industrial Revenue Bonds 7. Massachusetts Technology Development Corporation 8. Massachusetts Capital Resource Company 9. Local Tax Exemption on Tangible Property 10. Loss Carryover for New Corporations 11. Urban Job Incentives 12. Sales Tax Exemption for Machinery 13. 3% Investment Tax Credit 14. Department of Manpower Development (DMD) 15. Factor Allocation Formula 16. Financing and Tax Reductions for Polution Control Facilities and Alternative Energy Sources	Application for a Certificate of Convenience and Necessity to the Industrial Finance Board and the Department of Commerce and Development regarding financial assistance

Agency	Legislative Mandate	Powers and Responsibilities	Permits
Department of Commerce and Development (continued)		17. Massachusetts Community Economic Development Assistance Corporation (CEDAC)	
		18. Massachusetts Export Sales Tax Advantage	

Agency	Legislative Mandate	Powers and Responsibilities	Permits
Executive Office of Communities and Development (Department of Community Affairs)	A. CMR 780: 100 MGL C 143, S 3 B. CMR 760: 30 MGL C 23B, S 5A	1. Provides a voice for local government at the state level 2. Coordinates state and federal investments to promote increased housing production and the revitalization of residential, commercial and industrial areas 3. Provides technical assistance to strengthen communities abilities to plan for future development and to improve local government management capabilities	A. Building construction permit from local building inspector B. Appeals made to Housing Appeals Committee

Agency	Legislative Mandate	Powers and Responsibilities	Permits
Department of Public Safety	A. MGL C 143, S 15 B. CMR 521: 1 MGL C 22, S 13A		A. Certification of approval plans and specifications B. Construction, reconstruction, or alteration pertaining to handicap access in public buildings

Agency	Legislative Mandate	Responsibilities and Powers	Permits
"Umbrella" Citizens Advisory Committee		1. Oversea Boston Harbor clean-up program 2. Funding and organization under MDC, DEQE, etc.	

Agency	Legislative Mandate	Powers and Responsibilities	Permits
Department of Public Works	MGL C 89, S 9		Permit issued by Permit Engineer (Main or District Office); denials or appeals to DPW Commission

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Department of Fisheries, Wildlife, and Recreational Vehicles Public Access Board	MGL C 21, S 17-17A	1. Designate public access to great ponds, coastal and inland waters, and location of trails and paths for snowmobiling, hiking, skiing, or other uses 2. Acquire land by purchase, gift, lease, or eminent domain for the purpose of providing public access facilities 3. Contracting authority for design and construction of public access facilities 4. May utilize public lands for public access with consent of department or agency which owns the land 5. Department shall adopt, after public hearings, regulations governing the use of land and water areas for public access	

Agency	Legislative Mandate	Powers and Responsibilities	Permits
State Building Code Commission	A. CMR 780: 126 MGL C 23B, S 23 B. CMR 780: 1900 MGL C 140, S 32A		A. Appeals process-State Building Code Appeals Board B. Regulations by State Building Code Commission and local officials

Agency	Legislative Mandate	Responsibilities & Powers	Permit
County Agency			
Suffolk Superior Court		1) Any aggrieved person unsatisfied with the Board of Appeals' decision may appeal within 15 days after decision is recorded 2) Court may annul the decision of the Board of Appeal, may make another decision and may restrain by injunction any action that violates the Zoning Code	

Agency City Agency	Legislative Mandate	Responsibilities and Powers	Permits
Boston Water and Sewer Division (BWSC)	Chapter 436, Acts of 1977	1. Plow, design, construct, operate, and maintain water distribution system within Boston 2. Plow, design, construct, operate, and maintain wastewater collection system within Boston 3. Purchase water in bulk and wastewater disposal and treatment services 4. Sell water and wastewater services to persons, public and private corporations, municipalities, and state and federal governments 5. Receive, administer and expend gifts, grants, donations, and property 6. Acquire any water, water rights and interests in land within Boston	1. Joint MDC - BWSC industrial waste discharge permits 2. Water and sewer connection permits

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Boston Redevelopment Authority	MGL C 121A, S 1-14A "for public purpose"	1. Authorize or approve projects in substandard areas for the construction of residential, commercial, industrial, institutional, recreational, or government facilities 2. Approve financing of project 3. May lease or sell real estate that it owns for the purpose of land assembly and redevelopment or urban renewal purposes 4. Obligate itself to construct, alter, relocate, or repair public ways and sidewalks in the public interest. 5. May undertake planning, construction, or furnishing of parks, playgrounds, schools, water, sewer, or drainage facilities or other public improvements 6. Projects exempt from taxation 7. Formation of urban development corporations 8. Any such corporation may acquire land by gift or purchase or, with approval of BRA, by eminent domain	With approval of Mayor

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Boston Redevelopment Authority		9. Studies appeals to the zoning code and makes recommendations to the Board of Appeals (studies are conducted by BRA advisor to Zoning Commission A) Judge the appeal from the standpoint of needs and planning goals of the whole city and the local area B) Ascertain that granting the appeal would not adversely affect the public good nor substantially depart from the intent of the zoning code 10. May request changes in the Zoning Code 11. Allowed 20 days by law to review amendment proposals conducted by zoning commission and then makes recommendations on the matter	

Agency	Legislative Mandate	Responsibilities and Powers
Economic Development & Industrial Corporation (EDIC/Boston)	MGL c 1097, Acts of 1971	1. To promote industrial growth and thereby expand industrial employment in the City of Boston, EDIC generally has powers to: A) Acquire and develop land for industrial use based on a publically approved Economic Development Plan B) Apply for and accept grants or loans, or contributions in aid of economic development projects C) Issue revenue bonds of the corporation for economic development projects D) Subject to the approval of the City Council and of the mayor, designate areas of the city as Economic Development Areas

Agency	Legislative Mandate	Responsibilities and Powers	Permit
City of Boston Zoning Commission	MGL Stat. 1956 c 665 Ordinances 1961, c 9 & 10	1) Adopt and amend Zoning Code for following reasons: A) Conserve health B) Secure safety from fire, panic and other dangers C) Prevent overcrowding of land D) Avoid undue concentration of population, to facilitate the adequate provision of transportation, water, sewage, schools, parks, and other public requirements E) Conserve value of land & buildings F) Encourage the most appropriate use of land in city G) Preserve and increase the city's amenities 2) Relies heavily on BRA recommendations in amendment process	

Agency	Legislative Mandate	Responsibilities and Powers	Permit
City of Boston Board of Appeal	MGL [Stat. 1938] c 479 s 117 [Stat. 1956] c 665 s 8	1) Hears appeals related to Zoning Code & the Building Code 2) Applicant who has been refused building or use permit under the Zoning Code may appeal within 45 days of date of refusal to the Board of Appeals 3) Schedules public hearings (6 to 8 weeks) after appeal is submitted and sends notices to 1) appellant 2) BRA 3) owners of property affected by appeal (usu. abuttors) 4) Anyone who has requested to be notified of hearings in the area Note: Board also advertises in classified ads of Boston Globe 7 days before hearing	A) Conditional Use Permit B) Variances for Forbidden Use Permit Note: 1) Conditional Use indicates that a proposed building does not meet Zoning Code requirements 2) Building Commisioner issues permit

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Local Conservation Commission [including Boston Conservation Commission]	Wetlands Protection Act (1972) (MGL C 131, S 40) Wetlands Protection Bylaws	1. Responsible for issuance of Wetland Order of Conditions for protection of coastal and inland wetlands 2. Wetland Order of Conditions is considered a prerequisite for permits 1-7 3. Required to protect the public's interests in the following areas A) Public and private water supplies B) Groundwater C) Flooding D) Storm damage E) Prevention of pollution F) Fish G) Shellfish	1. Chapter 91 Waterways License 2. Dredging and disposal of dredged material permit 3. Mineral extraction from land under coastal waters 4. Construction and maintenance of dams 5. Waste disposal facility siting 6. NPDES 7. Marine oil terminal license 8. Wetland Order of Conditions

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Local Boards of Health	A. MGL C 111, S 150A		A. Site approval for waste disposal facility
	B. MGL C 111, S 150A		B. Site approval for hazardous waste disposal facility
	C. MGL C 111, S 142A-E		C. Site approval for construction of new source of air contaminants
	D. MGL C 111, S 17 MGL C 21A, S 13		D. Site approval of septage disposal facility
	E. MGL C 111, S 143		E. Site approval for appropriate trades
	F. MGL C 21A, S 13 State Environmental Code		F. Approval for surface sewage disposal facility (<15,000 gal/day)
	G. MGL C 111, S31A		G. Pumping or transportation of septage permit
			These permits are generally issued by municipal boards of health based upon regulations adopted by DEQE

Agency	Legislative Mandate	Responsibilities and Powers	Permits
City and Town Legislative Bodies Zoning Boards	A. Zoning Enabling Act (MGL C 40A, S 2)	A. Power to regulate and restrict construction (commercial and non-commercial) for promotion of health, safety, and welfare of the inhabitants	1. Industrial User Discharge Permit 2. Access to water line in permitting process for municipal service: water MOC permit 3. Special connection/city or town file for developer who wants to connect to Metropolitan sewer
	B. MGL C 91, S 12-23	B. Town selectmen must be notified by DEQE of Chapter 91 Waterways License	B. Chapter 91 Waterways License
Local Municipalities Sewer Division			

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Multi-jurisdictional Agencies	MGL C 91A, S 1-10	1. Construct or acquire additional facilities	
Massport		2. Investigate necessity for more expenditious handling of commerce and improvement of commerce in Boston and the surrounding metropolitan area	
		3. Investigate necessity for more expeditious handling commerce	
		4. Make studies, surveys, and estimates on feasibility of facilities	
		5. Issue revenue bonds (not to exceed $15 million) to borrow money for acquisition and construction of trade and transportation center	
		6. Authority to fix, revise, charge, and collect tolls, rates, fees, rentals, etc., for the use of projects	
		7. Control, operate, and maintain airports	
		8. Establish its own rules and regulations for the use of project	
		9. Authority to acquire by purchase or eminent domain land, property, rights of way, etc., for construction or operation of any project with approval of Governor and Council and winin the limits of authority granted by Legislature	
		10. In charge of all lands, piers, and other structures and facilities owned by Commonwealth in said port except for MDC land	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Massport (continued)		11. Must comply with Division of Waterways C 91 license for construction or dredging below mean high water mark	
		12. Subject to Wetlands Order of Condition in the City of Boston	
		* Not subject to supervision or regulation of Department of Public Works, or any other department, commission, board, or bureau of Commonwealth	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Metropolitan Area Planning Council (MAPC)	CWA (Title II, S 208 and 303, C 40B	Basin and area planning	

Agency	Legislative Mandate	Powers and Responsibilities	Permits
Harbormaster	MGL C 102, S 19-26	1. Mayor of a city, except Boston, may appoint Harbormaster	
		2. Masters of vessels anchor their vessels according to regulations of Harbormaster	
		3. Permit for unloading lumber in stream	
		4. Removal of vessels from harbor	
		5. Regulate and station all vessels in streams or channels	5. Approval of floats or rafts
		6. Reports to Division of Waterways any obstructions to navigation in harbor	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Boston Harbor Interagency Coordinating Committee (BHICC)	State/EPA Agreement	1. To enhance coordination between state and federal agencies and the public 2. To provide a forum for sharing information, discussing proposed activities, and for expediting processes	

Agency	Legislative Mandate	Responsibilities and Powers	Permits
Private Organizations	Clean Water Act (established by EPA in 1976)	Provides for public participation in EPA and state programs	
Boston Harbor Citizens Committee			

Agency	Legislative Mandate	Responsibilities and Powers	Permits
The Boston Harbor Associates (TBHA)		1. To promote a sensible plan for the development of Boston Harbor	

Government Agencies Classified According to Their Legislative Powers

Permitting or Regulatory Powers

Local

1. Local Zoning Boards
2. Local Building Departments
3. Local Boards of Health
4. Local Conservation Commissions

State

1. EOEA
   - A. DEQE - Division of Wetland Protection
     - Division of Waterways
     - Division of Water Pollution Control
     - Division of Water Supply
     - Division of Hazardous Waste
   - B. DEM
   - C. MDC
2. Department of Commerce and Development
3. Department of Public Utilities
4. Department of Public Works
5. Department of Public Safety
6. State Building Commission
7. Executive Office of Communities and Development
8. Executive Office of Public Safety

Federal

1. EPA
2. Army Corps of Engineers
3. U.S. Coast Guard
4. National Marine Fisheries Service
5. Fish and Wildlife Department
6. Department of Housing and Urban Development

Multijurisdictional

1. Harbor Master

Government Agencies Classified According to Their Legislative Powers (continued) - p.2

Promulgate Rules & Regulations

1. EOEA
   - A. DEQE
   - B. DEM
   - C. MDC
2. Department of Fisheries, Wildlife and Recreational Vehicles

Environmental Review

1. EOEA
   - A. Coastal Zone Management Office
   - B. MEPA Review Office
2. EPA

Issue Bonds

1. BRA (C 121A S12)
2. EDIC/Boston
3. MDC (C 12 S30
4. Massport

Eminent Domain

1. BRA (C121A S11)
2. EOEA
   - A. MDC (C21 S30)
   - B. DEQE - Division of Waterways (C91A S1,2)
3. Department of Fisheries, Wildlife and Recreational Vehicles (Public Access Board) (C21 S17A)
4. Massport (C91 S3)

Government Agencies Classified According to Their Activity

Environmental Control

1. Local Conservation Commissions
2. Local Boards of Health
3. EOEA
   A. Coastal Zone Management
   B. DEQE
      1) Division of Wetlands Protection
      2) Division of Solid Waste Disposal
      3) Division of Waterways
      4) Division of Hazardous Waste
      5) Division of Water Pollution Control
      6) Division of Water Supply
   C. DEM
      1) Division of Acquisition & Construction
      2) Office of Planning
      3) Division of Wetlands Restriction
      4) Bureau of Solid Waste Disposal
      5) Division of Water Resources
   D. MDC
4. EPA
5. National Marine Fisheries Service
6. U.S. Fish and Wildlife Department
7. U.S. Army Corps of Engineers

Land Use/Redevelopment

1. BRA
2. EDIC
3. Department of Housing & Urban Development
4. Massport

Government Agencies Classified According to Their Activity (continued)- p. 2

Financing

1. BRA
2. EDIC
3. Department of Commerce & Development
4. Executive Office of Communities & Development

Building/Construction

1. Local Zoning Boards
2. City of Boston Zoning Commission
3. City of Boston Board of Appeal
4. BRA
5. Suffolk County
6. Department of Public Utilities
7. State Building Code Commission
8. MDC

Planning

1. MDC - Waste Water Plans
2. DWPC - Waste Water Plans
3. MAPC
4. EPA

Citizens' Advisory Councils & Interest Groups

1. BHCAC
2. TBHA
3. BHICC
4. "Umbrella" Citizens' Advisory Committee

Navigation/Commerce

1. Harbor Master
2. Massport
3. U.S. Coast Guard
4. U.S. Army Corps of Engineers

Maintenance

1. Boston Water and Sewer Division
2. MDC
3. DPW
4. Massport

OBSERVATIONS OF OTHER URBAN HARBORS-

SOME COMPARISONS

OBSERVATIONS OF OTHER URBAN HARBORS: COMPARISONS

TABLE OF CONTENTS

SUMMARY

Over the past 25 years the municipal institutions and authorities that have managed our nation's harbors have had to confront revolutionary developments in marine technology, a fluctuating economic environment, and a proliferation of regulations and regulatory agencies. While some institutions were able to adapt, other management systems needed to be modified radically to keep up with the times. But not all cities made these necessary institutional adjustments; a few relied on outdated institutions with inadequate mandates and insufficient powers to solve modern problems. The six harbors investigated in this chapter (Baltimore, New York, Philadelphia, San Diego, San Francisco, and Seattle) illustrate in varying degrees these different approaches.

The catalyst for institutional change has been different from harbor to harbor. In Baltimore the catalyst was the U.S. Fish and Wildlife Service; in New Jersey it was an environmentalist coalition; in New York it was the Interstate Commerce Commission; in San Diego it was a business

community alliance; in San Francisco it was an environmental group and a graphic picture of San Francisco Bay filled; and in Seattle it was a civic organization and a TV documentary exposing port mismanagement. Clearly no single formula existed to incite change. A crisis evidently helped, but as the San Diego business alliance demonstrated, it was not essential.

Despite the different catalysts, a pattern in the new institutions is unmistakable. Regionalism is the common element. The Regional Planning Council in Baltimore, the Hudson River Waterfront Commission in New Jersey, the San Diego Unified Port District, the San Francisco Bay Conservation and Development Commission, and the Municipality of Metropolitan Seattle are examples of this trend to give regional authorities varying degrees of power and influence in local land use planning.

The Coastal Zone Management Act of 1972 was a federal attempt to bring greater coordination into waterfront land use planning. CZM programs potentially could have been a rallying force for new harbor management systems. But in many states these programs are too weak to have had much of an effect. All of the CZM programs of the eastern states examined in this chapter were developed from existing legislation and lacked the mandate to coordinate harbor planning and management. California and Washington, on the other hand, passed new comprehensive legislation that required that local authorities develop waterfront master plans under state guidelines. These master plans help define waterfront management structures.

But if anything is to be learned from this chapter, it should be that many of the problems that have mired Boston Harbor management are not unique

to Boston. Other harbors have had to deal with these same issues; some have had more success than others. This chapter reviews the problems of each harbor, reveals the key actors, their mandates and powers, examines management mechanisms, and suggests what is transferable to a new system of Boston Harbor management.

What is Transferable?

A Regional Authority

1. All ports investigated in this study have some type of regional body with varying mandates and powers; some are loosely defined while others are well defined with extensive responsibilities. Representation on the governing commissions is sometimes weighted to favor municipalities with large populations. For Boston, representation could also be weighted according to length of shorelines in communities.

2. The purposes of many of these regional councils are comprehensive planning (including coordination of planning with local communities), establishment of guidelines for future development, and facilitation of future development and activities.

Expanded Mandates

1. The Port of Seattle's mandate includes power over rail and highway terminals which allow the Port to offer the Overland Common Point program. In this program the Port assembled small shipments destined for the same place but in different containers into one container to reduce shipping costs. This strategy improved Seattle's ability to compete with other West Coast ports. Massport's operations could be more effective if its mandate could be broadened to encompass such powers.

2. The New York/New Jersey Port Authority's mandate was expanded to include the powers necessary for an industrial revitalization program. Under certain conditions that reflected the broader public considerations of Boston Harbor, Massport might be considered for this type of program.

Massport has the planning, marketing, and managerial structure as well as the responsibility to promote, protect, and preserve commerce in the Port of Boston.

3. The mandates of the Ports of San Diego and Seattle include the protection of recreational interests. In Boston, it is essential that some agency's mandate be expanded to assume a lead role in the promotion, creation and maintenance of recreational interests.

4. The Delaware River Basin Commission has allocation and regulatory responsibilities in the 4-state area of the Delaware River Basin. The mandate of the New England River Basins Commission could be expanded to provide for a similar role in water quality management.

Environmental Permit Coordination

1. The State of Washington's Environmental Coordination Procedures Act provides for a one stop permit system for all state permits needed for development. A similar law in Massachusetts would help simplify the complicated regulatory process. A Harbor agency could be the focal agency for implementation of this act at least for Harbor activities.

2. New York City's Department of Planning has been advocating a programmatic environmental assessment review. The Boston office of Skidmore, Owings, and Merrill has a grant from HUD to develop a guidebook for these reviews. This guide could help facilitate development in Massachusetts.

Management Mechanisms

1. In the absence of legislation, Baltimore's Department of Planning requires that public access be included in all residential projects with federal assistance. Massachusetts cities or a harbor agency could by executive order adopt a similar requirement.

2. New York's Department of Ports and Terminals has released a Request for Proposals (RFP) for development of a segment of the East River Waterfront no longer suitable for marine use. The RFP strategy has already been used by the MDC to develop Peddocks Island. This approach might also be used by the City of Boston to develop Spectacle Island, although the determination should be carried out in coordination with a comprehensive Harbor planning process. The use of lease instead of sale arrangements for water enhanced or water related development on vacant waterfront land might be explored (with the exception of residential development). Once the lease expires the land will once again be available for water dependent uses.

3. The Charles Center Inner Harbor Management Inc. in Baltimore has been a major success. That non-profit development corporation strategy might be explored as a possible option for managing and developing land around Boston Harbor.

4. Baltimore's Regional Planning Council coordinates development of "Coastal Guidance Packages" for each locality in the region to maintain consistency in coastal planning. In Boston Harbor the development of a Harbor master plan or local coastal guidance packages could be coordinated by a new Harbor agency or in its absence, by the Coastal Zone Management Office.

5. The Municipality of Metropolitan Seattle (Metro) has proven to be an extremely effective structure for the management of water quality. Metro could serve as a model for any reorganization of the MDC.

Public Participation

1. Events such as Operation Sail in New York and the Parade of Sail in Boston help build waterfront constituencies. Other events from Boston harbor yacht regattas and transatlantic boat races to harbor fishing contests and waterfront musical concerts could help build advocacy groups for change in Boston Harbor.

2. Modeled after the Regional Planning Council's Coastal Zone Metropolitan Advisory Board in Baltimore, a board of non-governmental representatives established to advise a new regional council managing the Harbor would represent a sound public participation component.

3. In the 1950's a TV expose of port mismanagement in Seattle was a catalyst for change in the direction of the port. A similar documentary on the range of problems of Boston Harbor management would be a useful mechanism to catalyze change.

REGIONAL AUTHORITIES

	Political Status	Political Jurisdictions	Governing Board	Population	Land Area	Functions	Catalyst	Year Formed
Regional Planning Council (Baltimore)	regional commission	City of Baltimore and 5 surrounding counties [6 principal governments]	12 elected officials 6 members of planning bodies, 1 State Senator (appointed by Governor), 1 State Delegate (appointed by Governor, 2 private citizens (appointed by Governor), 1 mayoral representative	2.2 million	2,259 square miles	1. Forum for planning issues 2. Devise general development plans		1963
The Port Authority of New York and New Jersey	public corporation (bi-state)	17 county governments 234 municipal governments 200+ special authorities and commissions	6 commissioners appointed by the Governor of New York 6 commissioners appointed by the Governor of New Jersey	12 million	1,500 square miles	1. Development of certain transportation, terminal, and other facilities of commerce 2. Protection and promotion of port commerce	Interstate Commerce Commission	1921
Hudson River Waterfront Study, Planning, and Development Commission (New Jersey)	regional commission (temporary commission created by executive order)	11 municipalities	39 members appointed by Governor, includes mayors of 15 municipalities, several other elected officials, representatives of governments, and private citizens		Roughly 4,000 acres (from the River to the first paved public road)	1. Conduct a thorough study of various alternatives for the planning and redevelopment of the Hudson River Waterfront	Alliance of 26 local environmentalist groups	1979
Delaware River Port Authority	public corporation (bi-state)	2 counties in Pennsylvania and 8 counties in New Jersey	8 commissioners appointed by Governor of New Jersey, 8 commissioners appointed by Governor of Pennsylvania			1. Promotion and protection of marine commerce on Delaware 2. Construction and operation of bridges. 3. Development and operation of mass transit facilities		1952
Delaware River Basin Commission	regional commission (4 states)	Parts of 4 states	Governors of New York, New Jersey, Pennsylvania, and Delaware and one commissioner appointed by the President of the United States		32,000 square miles	1. Develop and effectuate plans, policies, and projects relating to the water resources of the basin		1961
San Diego Unified Port District	public corporation	5 municipalities on San Diego Bay	3 commissioners appointed by San Diego City Council, 4 commissioners (1 appointed by each of the other city councils)	1 million (roughly)	2,491 acres of tidelands around San Diego Bay	1. Promote the development of commerce, navigation, fisheries, and recreation	Business community alliance	1962
San Francisco Bay Conservation and Development Commission	regional commission	9 counties 36 cities	9 county representatives, 4 city representatives, 7 members of general public, 5 members of various state and regional agencies, 2 representatives of federal government	4.5 million	100 foot band of shoreline around the Bay miles not available	1. Permit approval over land use changes affecting the Bay and its shoreline. 2. Development of a Bay master plan	Save the Bay Association	1965
Port of Seattle	public corporation	1 county 36 cities	5 member commission elected at large	1.3 million	2,134 square miles	1. Promotion and operation of marine terminals, including rail and highway		1911
Municipality of Metropolitan Seattle	public corporation	1 county 37 local governments	9 members of King County Council, 9 members of Seattle City Council, 9 representatives of smaller cities, 6 representatives from unincorporated areas, 1 representative of sewer districts			sewage disposal, transportation mass, water, parks, garbage, comprehensive planning	Municipal League of Seattle and the League of Women Voters	1958


BALTIMORE
PENN CENTRAL
PATTERSON PARK
NORTHWEST HARBOR
South Baltimore
Riverside Yard
Locust Pt
Feils Point
Fort McHenry
Whetstone Pt
Winans Cove
Canton
Canton Yard
Lazaretto Point
Highlandtown
Ferry Bar
Basin
Locust Point Marine Terminal
Latrobe Park
Federal Hill Park
Swann Park
Broening Park
Maryland Yacht Club
Port Covington Yard
Greenmount Cemetery
University of Baltimore
Pratt Library
Mercy Hospital
Municipal Office Bldg
Courthouse
U S Customs
TV Tower (WMAR)
Shot Tower
Reading Clinic and Sch
Church Home Hospital
Vocational Sch
John Rodgers Sch
St Elizabeth Sch
Patterson Park Jr-Sr High Sch
Round House
Hampstead Hill Jr High Sch
Highlandtown Sch
Canton Sch
Patterson Sch
Holy Rosary Sch
Fell Sch
Weglein Sch
Tighman Sch
Dunbar Jr-Sr High
Henderson Sch
Patrick Henry Sch
Pt Worthington Sch
St Katharines Convent
St Alphonsus Cemetery
Johns Hopkins Hospital
Paca Sch
State Penitentiary and City Jail
Hillen Sta
Library
Armory
Radio Towers
Southern High Sch
General Hospital
Johnson Sch
Riverside Park
Light
Oil
Gas
30 FEET NOV 1941
FERRY BAR CHANNEL (WEST SECTION)
FERRY BAR CHANNEL (EAST SECTION)
PORT OF BALTIMORE

SIX CITIES
Baltimore

A lesson in regionalism

Problems

Over the past few decades Baltimore has had to confront many of the problems common to the Boston waterfront. Decaying piers, under-utilized land, inadequate transportation linkage to the port, and a complex regulatory system have complicated the redevelopment of both harbors. But Baltimore's approach to these problems and its overall waterfront redevelopment strategies have been quite different than Boston's. Instead of relying only on traditional government institutions Baltimore created new ones outside of existing bureaucracies.

Key Actors

1. The Charles Center Inner Harbor Management Inc. is a private non-profit corporation that provides management to Baltimore's downtown redevelopment projects. Its origin extends back to 1956 when a group of businessmen concerned about the future of Baltimore's downtown and waterfront area formed the Greater Baltimore Committee. By 1958 they had spent a quarter of a million dollars of private money in the development of a conceptual plan for this area. This plan fostered an urban renewal initiative to redevelop the central business district from 1960-65. As this project approached completion, the Charles Center Inner Harbor Management Inc. was formed to undertake a 20 year renewal project of the inner harbor. The purpose of the corporation was to provide a mechanism through which the business community could become involved

in the execution of projects.

Since 1965, buildings which represent a total of $775,000,000 in new private and public investment are either completed, under construction, or committed in the Charles Center and Inner Harbor projects. There are plans representing $475,000,000 of additional investment making a total ultimate investment of $1,250,000,000. Charles Center Inner Harbor Management Inc.'s unique role with the city has been indispensable in attracting developers.

2. The Regional Planning Council (RPC) was formed in the mid-sixties to provide a forum for discussion of regional planning issues, coordinate regional open space planning,and produce a general development plan every five years which would be coordinated with the plans of local jurisdictions. RPC's jurisdiction includes the City of Baltimore and the five counties surrounding it which altogether have a population of roughly 2.2 million. The Council consists of 23 members: 12 elected officials, 2 from each government; 6 members of the planning bodies, 1 from each government; 1 state senator, appointed by the Governor; 1 state delegate, appointed by the Governor, 2 private citizens appointed by the Governor; and 1 mayoral representative of the region's incorporated towns, appointed by those municipalities. The chairman is appointed by the Governor from the membership.

The RPC became the lead agency in waterfront redevelopment in the early seventies after the U.S. Fish and Wildlife Service declared a moratorium on all dredge and fill permit reviews until a comprehensive harbor plan had been completed. The Service felt it was impossible to assess the impact of any specific project without a harbor plan agreed to

by all harbor related agencies. Since port activities had a direct effect on the economy of the entire region, the Maryland Port Administration and the City of Baltimore asked the RPC to be the lead agency in the development of this plan.

In 1974 the RPC created the Harbor Advisory Committee which consisted of representatives of pertinent governmental agencies and the various jurisdictions on Baltimore Harbor. This group developed a set of guidelines or recommendations rather than absolute prescriptions for Baltimore Harbor. This plan was adopted by the RPC and serves as the present guide for development and redevelopment of Baltimore Harbor.

3. The Maryland Port Administration (MPA) a division of the Maryland Department of Transportation, is the present public agency responsible for the promotion and protection of marine commerce in Baltimore. The Port of Baltimore has had several different managers during this century. In the early part of the 1900's the City managed city-owned steamship facilities and the City Harbor Master was general manager of the Port. At that time Baltimore's excellent train linkages to the midwest provided a substantial competitive advantage over many eastern ports. But this competitive edge diminished substantially after World War II, as trucks replaced railroads. As the interstate highway system grew, the Port of Baltimore declined.

In 1956, the Maryland Port Authority, a public corporation, was formed to protect the interests of the port by fostering waterborne commerce to the maximum extent. But in 1971 the public corporation strategy was abandoned in a major reorganization of state government. At this time the Maryland Port Administration was formed to replace the port authority.

Although MPA suffered a net loss of approximately $5,000,000 in FY1979, the outlook for the future is bright. Truck linkages to the Port will be improved by the new tunnel being built under Baltimore Harbor as part of Interstate 95. The tunnel spoil is being used to fill a bulk-headed site for the planned Seagirt General Cargo Facility. Additional expansion is being completed at the Dundalk Marine Terminal. Finally the Masonville Marine Terminal container facility is planned to be completed in ten years on a 300 acre marsh site.

The Port of Baltimore has also benefited greatly from the resurgence of coal consumption caused by the increasing cost of oil. Baltimore's rail linkages and proximity to Appalachian coal mines make it an ideal location for coal export. At present three modern coal facilities are planned for construction in Baltimore Harbor by private companies.

4. The Office of Water Quality Management within the Department of Public Works is the city agency responsible for harbor water quality. The city owns and operates two secondary wastewater treatment plants that serve the city and the three surrounding counties. Over 100 million gallons of effluent from one of these plants is reused for cooling purposes by Bethlehem Steel. The effluent is then retreated before it is discharged into Baltimore Harbor. This project has been in existence for 10 years and represents one of the few large reuses of waste effluent.

Accompanied with land-side harbor improvements the city is trying to expand recreational uses of the harbor. Improvement of water quality is part of this program. The Office of Water Quality Management has secured 201 construction grants to eliminate 100 sanitary system overflows and is also participating in a National Urban Runoff Program grant coordinated

by the Regional Planning Council.

Management Mechanisms

In addition to major mechanisms such as the Regional Planning Council and Charles Center Inner Harbor Management Inc., there have been other programs and policies that have facilitated the redevelopment of Baltimore Harbor. This section discusses six of the most visible mechanisms.

1. In the absence of legislation, Baltimore's Department of Planning requires that public access be included in all residential projects built with federal assistance.

2. Maryland's Coastal Resources Division in the Department of Natural Resources is administering a dredging permit simplification program. The program plans to assemble a team of the pertinent agencies so that they can consolidate information needs in order to expedite the process.

3. The Coastal Resources Division formed the Coastal Resources Advisory Committee which consists of representatives of local jurisdictions, special interests groups, and non-voting representatives of the state and federal government. The Committee advises the Coastal Resources Division on all coastal zone matters.

4. The RPC established the Coastal Zone Metropolitan Advisory Board which consists primarily of non-governmental representatives of industry, business, academic institutions, and special interests groups to advise the RPC on coastal zone matters.

5. An RPC initiative resulted in EPA's selection of Baltimore as one of 28 urban areas in the National Urban Runoff Program. The RPC will coordinate the project and will be assisted by the U.S. Geological Survey, the City of Baltimore, and Baltimore County.

6. The RPC coordinates development of "Coastal Guidance Packages" for each locality in the region to maintain consistency in coastal planning.

What is transferable?

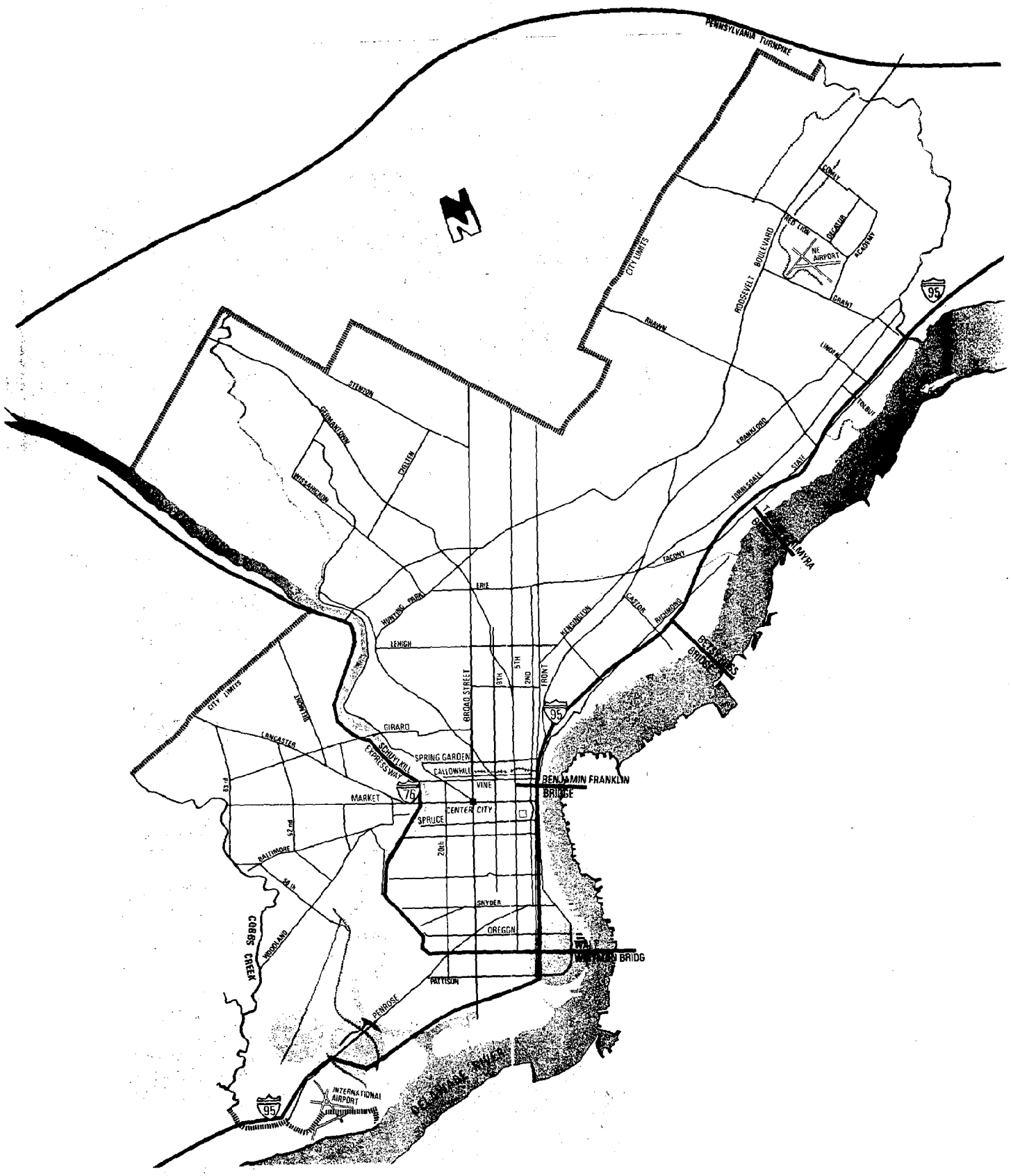
1. Baltimore's Regional Planning Council (RPC) certainly seems to be a success. A Boston Harbor Planning Council would include representatives of all the towns and cities within the Coastal Zone Office's definition of the Harbor. The cities of Boston and Quincy should have more than one representative because of their larger populations. The mandate of the Council should include the development of a master plan coordinated with the plans of local jurisdictions.

2. The RPC Coastal Guidance Packages could be used in Massachusetts with or without a council. The present CZM office could take on this function.

3. Copying Baltimore's Department of Planning, all state agencies in Massachusetts could adopt immediately the administrative policy that no development on the Harbor will receive state or federal assistance without an adequate public access element.

4. Modeled after RPC's Coastal Zone Metropolitan Advisory Board, a board of non-governmental representatives established to advise any new or existing institutions managing the Harbor would represent a sound public participation component.

5. Charles Center Inner Harbor Management Inc. might be duplicated in Boston. Although it has been a success in Baltimore, Philadelphia is reevaluating the Penns Landing Corporation because of perceived failures. This strategy needs further investigation.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CHELTEN
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CASTOR
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SNYDER
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COBBS CREEK
WOODLAND
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Philadelphia

Who does what?

Problems

The Ports of Philadelphia* had more actors participating in harbor management than any of the other case studies. The Committee of Seventy, a non-profit civic organization, recently completed a Ports Governance Study which claimed that the number one problem facing the ports was the fragmentation of responsibilities among existing port agencies: the Delaware River Port Authority is responsible for marketing and promotion; the Philadelphia Port Corporation provides basic administration; the Philadelphia Port Corporation and the Department of Commerce carry out planning and development; and the Philadelphia Marine Trade Association supplies personnel management. This fragmentation exacerbated information gathering problems. Furthermore, as responsibilities are delegated to different agencies, overall accountability suffers and resources are wasted in the needless duplication of effort, both severe problems in Philadelphia and other ports along the Delaware.

In addition to these problems Philadelphia faces the generic problems that confront many eastern ports. Maintenance dredging is stalled because of problems with environmentalists and the failure to find adequate disposal sites. Dilapidated and abandoned piers are scattered along the river. Finally, the severe drought in the mid-Atlantic region has lowered the river level but raised tempers over water allocations among states.

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*Defined by the Delaware River Port Authority as the ports of Philadelphia, Camden, Chester, Gloucester, Trenton, Paulsboro, Marcus Hook, and Wilmington.

Key Actors

1. The Philadelphia Port Corporation, a public corporation, was formed in 1965 to 1) promote waterborne commerce; 2) maintain and modernize existing facilities; and 3) design, construct, and manage new facilities within the city limits of Philadelphia.

A 33 member board oversees the operation of the Port. This board consists of 9 city directors (department and committee heads), 2 representatives of the Commonwealth of Pennsylvania, 2 representatives of the Delaware River Port Authority, 9 Philadelphia Chamber of Commerce members, and 11 public directors (prominent in the financial, commercial, industrial, and professional community). An executive committee of 13 meets more frequently and manages most of the Port's affairs.

The Corporation acts primarily as the landlord of the Port, leasing out the city owned waterfront facilities to private terminal operators. Although its mandate includes the promotion of marine commerce, the Corporation has done no formal marketing for the Port.

2. The Delaware River Port Authority (DRPA) is a public corporation formed by a compact between Pennsylvania and New Jersey and approved by the U.S. Congress in 1952. Its jurisdiction is Philadelphia and Delaware counties in Pennsylvania,and Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean, and Salem counties in New Jersey. A 16 member commission oversees the operations of the DRPA. The Governors of Pennsylvania and New Jersey each appoint 8 commissioners to serve five year terms on the commission.

The DRPA's mandate includes: 1) the promotion and protection of marine commerce on the Delaware; 2) the authority to acquire, build, and

inals; 3) the construction and operation of bridges; and
and operation of mass transit facilities between New
ania. Although the DRPA has several port-related
it has restricted its activities to Port promotion.
ware River Basin Commission was formed in 1961 by a
y the states of New York, New Jersey, Pennsylvania, and
Delaware. The purpose of the commission was to develop and effectuate plans, policies, and projects relating to the water resources of the basin including pollution control, water supply, flood protection, watershed management, recreation, and hydroelectric power. The commission consists of the Governors of the signatory states and one commissioner appointed by the President of the United States.

4. The Penns Landing Corporation is a non-profit corporation contracted by the City of Philadelphia to develop a 25 acre site on the Philadelphia waterfront.

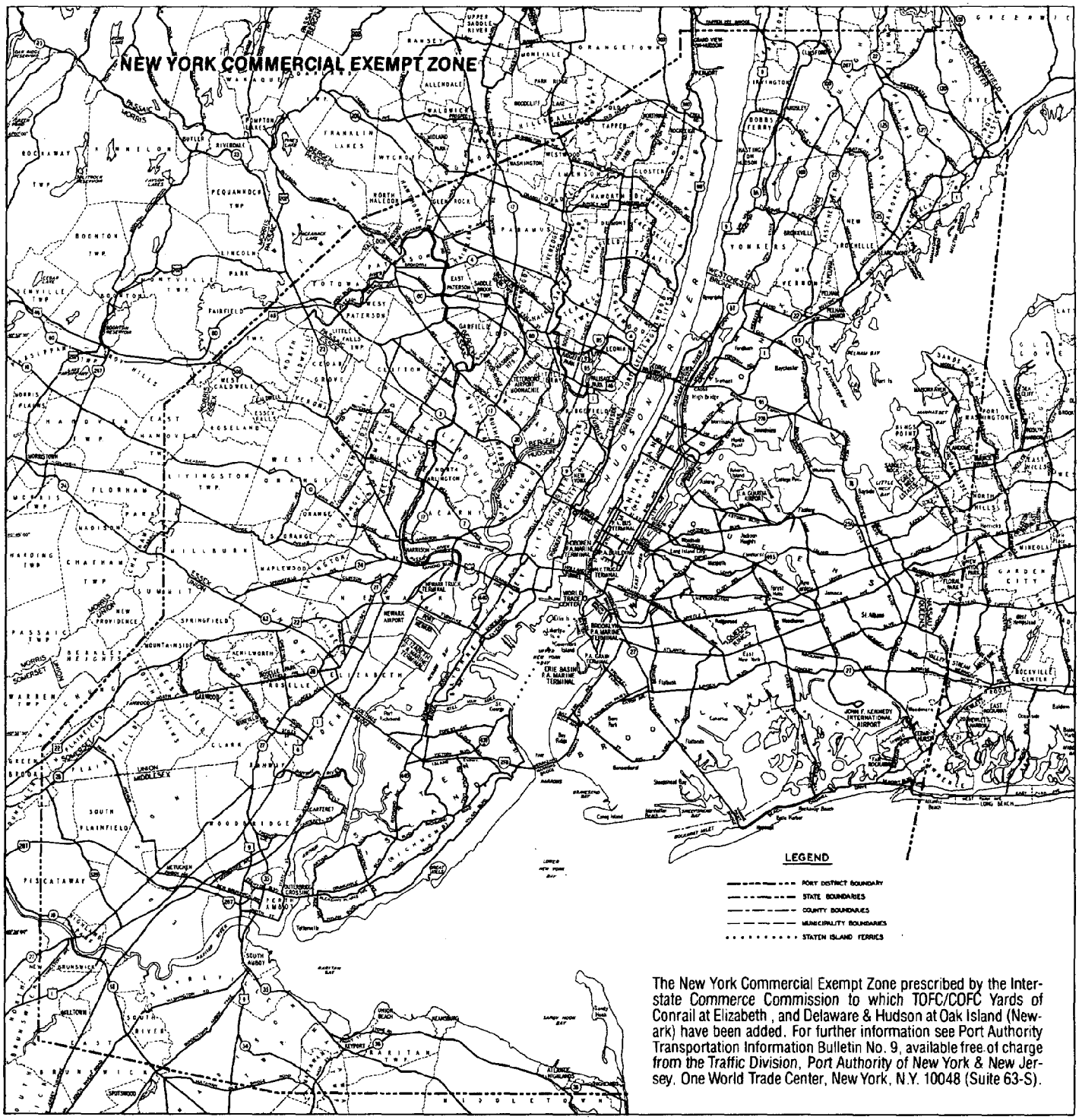
Management Mechanisms

1. In the absence of a regional port authority for the tri-state area (Pennsylvania, Delaware, and New Jersey), the Delaware River Port Authority's World Trade Division promotes eight ports along the Delaware as the "Ports of Philadelphia."

2. The Philadelphia City Planning Commission is in the process of a riverfront study to provide a long range plan for the Philadelphia waterfront.

3. The four state Delaware River Basin Commission has reduced by 35% the volume of drinking water that originates in the river basin and is allocated to New York City. This action was taken in order to

increase the amount of fresh water in the lower Delaware thus preventing further salt water intrusion upriver.



The New York Commercial Exempt Zone prescribed by the Interstate Commerce Commission to which TOFC/COFC Yards of Conrail at Elizabeth , and Delaware & Hudson at Oak Island (Newark) have been added. For further information see Port Authority Transportation Information Bulletin No. 9, available free of charge from the Traffic Division, Port Authority of New York & New Jersey, One World Trade Center, New York, N.Y. 10048 (Suite 63-S).

New York/New Jersey

A crisis delays change

Problems

The Port of New York/New Jersey's coast exceeds that of Boston, Baltimore, and Philadelphia combined. New York City alone has nearly 600 miles of coastline. All the generic problems experienced by east coast ports can be found somewhere in the Port of New York: the difficulty of finding dredge spoil sites; conflicts with environmentalists over the Westway highway; Brooklyn's weak transportation linkages; old abandoned finger piers along the Hudson; and a fragmented regulatory system. Add to these problems New York's fiscal crisis and the result is a waterfront largely neglected through most of the 70s.

Key Actors

1. The Port Authority of New York and New Jersey, a public corporation, was established by an interstate compact approved by the U.S. Congress in 1921. The Port District covers an area within approximately 25 miles of the Statue of Liberty. Within this district there are 17 county governments, 234 municipal governments, more than 200 special purpose authorities and commissions, and over 12 million people. Port Authority Commissioners, six from each state, are appointed by the Governors of New York and New Jersey and approved by the respective state legislatures. The commissioners serve without pay for six year staggered terms.

Historically, the Port Authority has had two major responsibilities: 1) the development and operation of certain transportation, terminal, and other facilities of commerce in the Port District and 2) the protection

and promotion of commerce moving to and from the port. In discharging these responsibilities the Port Authority has financed, constructed, and now operates 26 major facilities.

2. The Department of Ports and Terminals (P & T) is New York City's building department on the waterfront. Its responsibilities include management and control of all city owned wharf property, regulation of coastal structures, and the design of marine terminals. In 1978 Mayor Koch made P & T the lead waterfront development agency. At that time a policy was established to use for other purposes land that is no longer suitable for marine use.

3. The Department of City Planning (DCP) is the city agency responsible for the development of a coastal zone management program for the five boroughs of New York. Of all the case studies, New York is the only state that does not have a federally approved coastal zone management program.

4. The Bureau of Water Pollution Control within the Department of Environmental Protection is the city agency responsible for water quality in New York Harbor. The city's water quality improvement program is concentrating on the cleanup of canals, streams, and remnants of old creeks. They plan to build at least a dozen facilities as part of the Tributary Program that will remove floating material and large solids as well as disinfect the effluent.

5. The Department of Environmental Protection (DEP) is the lead agency for CZM in New Jersey. DEP has played a key role in the Liberty Park development project and in the recent investigation completed by the Hudson River Waterfront, Study, Planning, and Development Commission.

Management Mechanisms

1. In 1978 the Port Authority's legislated mandate was expanded to include a program of industrial development. An industrial park master plan was adopted in July 1979 that identified six urban sites on which the Port Authority with municipal agreement could build, market, and manage an industrial park in order to strengthen the region's economy and create new jobs.

The Port Authority has projected that the program will create over 26,000 jobs and generate roughly $300 million in annual payroll. The public investment would be about $500 million but almost $80 million would be returned annually as state and local tax benefits, approximately a 20% return on the investment.

2. The Department of Ports and Terminals (P & T) has released a Request for Proposals (RFP) for a mixed use development on a segment of the East River Waterfront no longer suitable for marine use.

P & T has established the following criteria as the basis for reviewing submissions and selecting a developer.

1 - Development program: the proposed development must be responsive to special development such as height restrictions, compatibility with existing neighborhoods, public access (a continuous waterfront esplanade is specified), view corridors, and density restrictions.

2 - Economic considerations: added weight will be given to proposals with the least public sector investment and the maximum economic benefit to the city.

3 - Architecture and design: emphasis will be placed on the quality

of design, materials, and workmanship to ensure that the development is appropriate to this waterfront site.

4 - Development and financial capability: management skills, available financial resources, and prior performance will be evaluated to ensure the applicant's ability to implement the proposed development.

3. New York City's Department of Planning has been advocating a programmatic environmental assessment review that would focus on area specific environmental impact reviews instead of the present site specific review process.

4. New Jersey's Hudson River Waterfront Study, Planning, and Development Commission (HRC) focused on the key issues of revitalization on the New Jersey Hudson waterfront. Although the Commission was formed in 1979 by an executive order from Governor Byrne, the real catalyst for the commission was an alliance of 26 local environmental groups known as the Waterfront Coalition of Hudson and Bergen.

The 39 member commission included the eleven mayors of the study area, local officials, and private citizens. Despite local protest, no representative of the Waterfront Coalition was included.

After a year long investigation the Commission adopted a series of recommendations concerning public access, environmental resources, transportation, energy, industrial and port development, solid waste, taxes, energy facilities and wastewater treatment. The most important of all these recommendations was that a new permanent regional agency be established to focus attention on the Hudson River waterfront.

In November 1980 a bill was introduced into the New Jersey legislature to form a permanent 27 member regional commission. If this bill is passed, the new commission's mandate will be to promote the immediate revitalization, development, redevelopment, recreation, and preservation of the Hudson River waterfront. Its powers and responsibilities will include: 1) the adoption of a master plan coordinated with the plans of local jurisdictions; 2) the review of all land use applications within the region; 3) the development of a program to divide property tax revenues from all new development in the region among the municipalities and counties within the region; and 4) the assumption of CZM regulatory responsibilities now administered by the Department of Environmental Protection.

5. Probably more than any event in the 70s, Operation Sail for the Bicentennial celebration created a new awareness of the plight and potential of New York City's waterfront. The idea was conceived by an ad hoc citizen's group and for many represents a second beginning for New York harbor.

What is transferable?

1. The industrial revitalization efforts of the Port Authority could be undertaken by Massport or some other public corporation in Massachusetts. Massport might be an appropriate agency because of its existing planning, marketing, and managerial skills and because of its responsibility to promote, protect, and preserve the commerce of the Port of Boston.

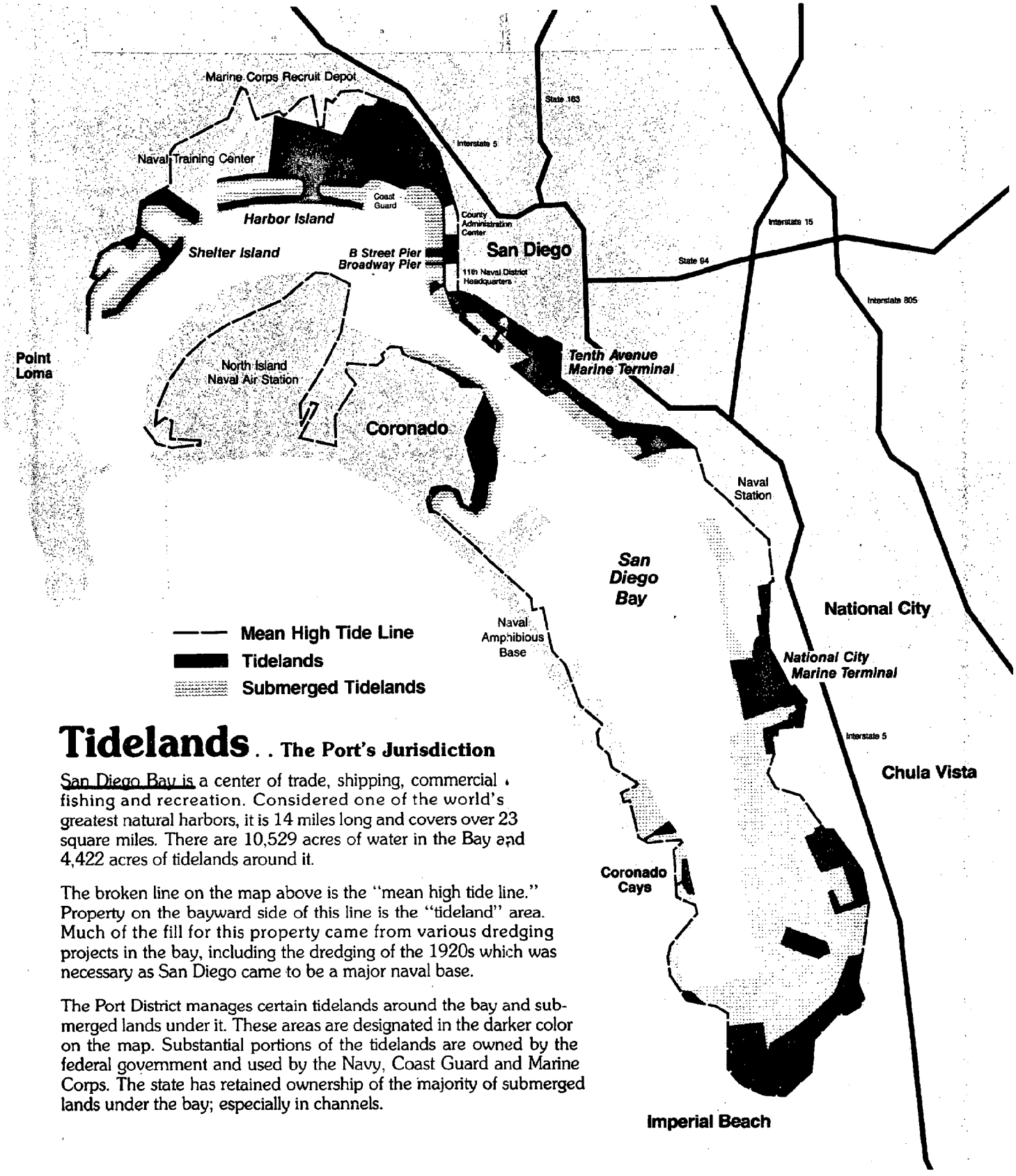
2. The Department of Ports and Terminals RFP strategy has already been used by the MDC to develop Peddocks Island. This approach might also be used by Massport to develop the East Boston piers or by the City

to develop Spectacle Island.

3. The area specific programmatic environmental assessment review advocated by New York City's Department of Planning is a strategy that is gaining popularity nationwide. The Boston office of Skidmore, Owings, and Merrill has a grant from HUD to develop a guidebook for these reviews. This guidebook will be available in spring 1981.

4. The Hudson River Waterfront Study, Planning, and Development Commission (HRC) is roughly analogous to Boston's newly legislated Harbor Commission. The HRC's final report was issued in September 1980 and should be of particular interest to the Boston Harbor Commission. In addition it would be useful to follow the debate and progress of New Jersey's bill to form a permanent regional commission.

5. Operation Sail served as a model for the Boston Harbor Associates Parade of Sail in 1980. The ability of these events to build waterfront constituencies should not be underestimated. Other events from Boston Harbor yacht regattas and transatlantic boat races to harbor fishing contests and waterfront musical concerts help build advocacy groups for change in Boston Harbor.



Tidelands . . . The Port's Jurisdiction

San Diego Bay is a center of trade, shipping, commercial fishing and recreation. Considered one of the world's greatest natural harbors, it is 14 miles long and covers over 23 square miles. There are 10,529 acres of water in the Bay and 4,422 acres of tidelands around it.

The broken line on the map above is the "mean high tide line." Property on the bayward side of this line is the "tideland" area. Much of the fill for this property came from various dredging projects in the bay, including the dredging of the 1920s which was necessary as San Diego came to be a major naval base.

The Port District manages certain tidelands around the bay and submerged lands under it. These areas are designated in the darker color on the map. Substantial portions of the tidelands are owned by the federal government and used by the Navy, Coast Guard and Marine Corps. The state has retained ownership of the majority of submerged lands under the bay; especially in channels.

San Diego

The All Powerful

Problems

Historically, the Port of San Diego's biggest problem has been its inability to compete with the larger Californian ports for marine commerce. This failure has had a profound effect on the type of industries that occupy the tidelands of San Diego Bay. In the absence of marine commerce, water dependent, water related recreation and tourism have become vitally important to the local economy. The San Diego Unified Port District's revenues from property operations was more than three times greater than revenue from marine operations in FY1980.

Despite extraordinary successes in property management the Port District sill confronts many of the generic problems of most American ports. Land scarcity is increasingly a problem with no possibility of creating new land. Demand for recreational boating slips has outstripped supply even though there are more than 6,000 slips in San Diego Bay and 2,000 additional slips in nearby Mission Bay. And the San Diego Port District has had its share of conflicts with environmentalists; the Port District is presently appealing an imposed condition on its master plan that requires the Port District provide and maintain a habitat for the least tern.

Finally, community opposition has always existed against the Port District's position on San Diego's airport location, but recently increased displeasure has been expressed over what is called the Port District's lack of responsiveness to community needs. The Port District's opposition to

a local Chicano park is an example commonly cited.

Key Actors

1. The San Diego Unified Port District is a public corporation and is the major actor in San Diego Bay and probably the most powerful port corporation in the U.S. Its mandate includes the power to promote the development of commerce, navigation, fisheries, and recreation. With the exception of federal property, the title of all tidelands resides in the Port District. These lands are held in trust for the uses and purposes and upon the conditions declared in the act.

The idea of a unified port district for San Diego began in the late 1950's when a group of businessmen got together who felt San Diego Bay's resources were underutilized. They felt that a new marine terminal would attract business to San Diego but the only available land for development was in National City. Since National City's bonding capacity was too small to pay for a new marine terminal, the unified port district concept was introduced.

In 1962 the San Diego Unified Port District was created by an act of the California legislature and approved by area voters in Coronado, Chula Vista, Imperial Beach, National City, and San Diego. The Port District is governed by seven member non-salaried commissioners. These members are appointed by the city councils of each of the five participating cities to serve four year terms; San Diego, the largest of the cities, appoints three commissioners.

Ironically the new marine terminal constructed in National City has been underutilized ever since its completion. On the other hand the Port District has had tremendous success in property management. In FY1980

property management represented 40% of total revenues. More than 350 firms are tenants of the Port District employing over 30,000 people.

Current projects on property leased from the Port District include: an 1,100 room hotel complex with a 450 slip marina in Embarcadero Marina Park on the City of San Diego's waterfront; a 600 slip marina that will eventually be expanded to 1,000 slips in Chula Vista; an 80 acre replenished wildlife haven that is the largest manmade marsh in the country; and the recent completion of Seaport Village, an early California theme shopping, dining, and recreational village. The Port District is also directly involved in the construction of a 192,000 square foot warehouse in National City with connecting railroad spurs and a 420 foot commercial fishing pier.

2. The Navy, Coast Guard, and Marine Corps occupy a large portion of San Diego Bay. Nearly one third of the U.S. Navy fleet is home-ported here. There are 18 major naval installations in the metropolitan area.

3. The San Diego Regional Water Quality Control Board has jurisdiction over water quality control problems in a 4,800 square mile area around San Diego including the Harbor. The Board consists of 9 members appointed by the Governor for four year staggered terms. At present water is swimmable in nearly every section of the Bay.

Management Mechanisms

1. The San Diego Unified Port District developed a master plan that was recently approved (with two conditions) by the California Coastal Commission. This certification will allow the Port District to implement the program through a permit system. The plan complies with state CZM

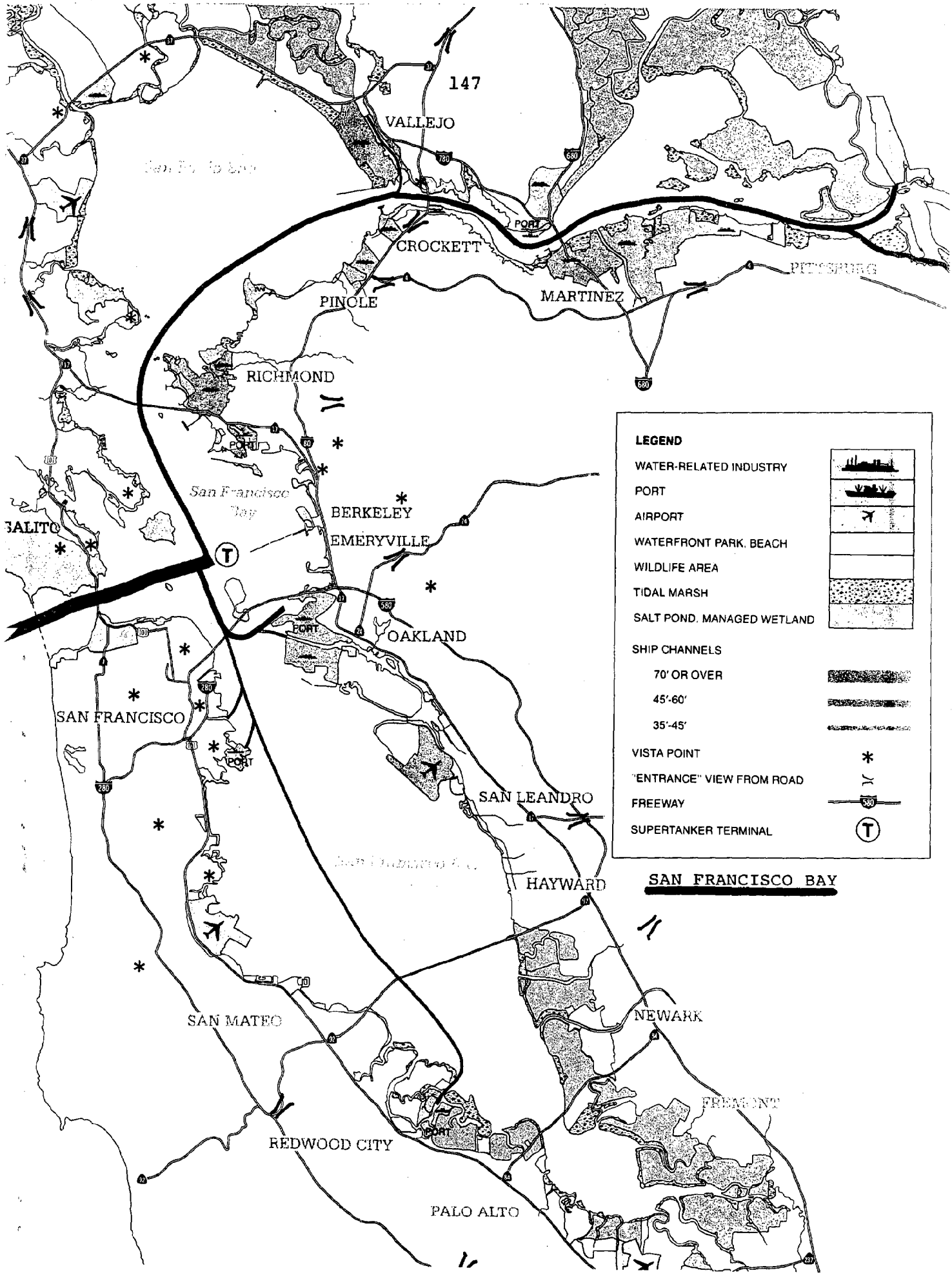
policies concerning port expansion in urban areas, dredge and fill activities, pollution prevention, protection of commercial fishing facilities, and port related developments.

What is transferable?

1. The recreational opportunities in San Diego Bay surpass those of all other major port cities in the U.S. The legislative mandate of some agency should be expanded to include promotion and protection of recreational interests (see RECOMMENDATIONS).

2. The San Diego Unified Port District's property management has been a very successful enterprise. Lease arrangements for water enhanced or water related development on vacant waterfront land in Boston Harbor might be explored (with the exception of residential development). Once the lease has expired the land will once again be available for water dependent uses.

3. The local coastal master plan used in California might also be used in Massachusetts. A regional commission would establish guidelines (development, public access, conservation, water quality management, etc.) for the master plan, local communities would prepare the plan with technical assistance from the commission, and the plan would become effective after commission approval.


VALLEJO
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SAN LEANDRO
HAYWARD
SAN MATEO
NEWARK
REDWOOD CITY
PORT
PALO ALTO
LEGEND
WATER-RELATED INDUSTRY
PORT
AIRPORT
WATERFRONT PARK, BEACH
WILDLIFE AREA
TIDAL MARSH
SALT POND, MANAGED WETLAND
SHIP CHANNELS
70' OR OVER
45'-60'
35'-45'
VISTA POINT
"ENTRANCE" VIEW FROM ROAD
FREEWAY
SUPERTANKER TERMINAL
SAN FRANCISCO BAY

San Francisco Bay

The CZM model

Problems

San Francisco Bay has three problems that seem to plague all ports in the U.S.: a scarcity of land suitable for development; an excess demand for recreational boating slips; and water quality problems that have caused among other things the decline of striped bass populations.

But it is not the generic problems that makes San Francisco interesting to this project. Rather it is the mechanism that was created to deal with them, namely, the San Francisco Bay Conservation and Development Commission.

Key Actors

Although there are several major actors within the boundaries of individual localities, the San Francisco Bay Conservation and Development Commission (BCDC) is the key public agency that operates in all sectors of the Bay.

The BCDC's origins extend back to the early 60's when a small citizens group called Save the Bay Association formed to bring to the public's attention the unchecked filling of the Bay. From 1850 to 1960 nearly one third of the Bay's 787 square miles of surface area had been filled. If that pace continued in the areas where it is economically feasible to fill, the Bay would be one half its present size in less than 50 years.

Save the Bay's persistent protest and lobbying efforts led to the establishment of the BCDC by the California legislature in 1965. In

the next four years the BCDC developed a comprehensive plan for the Bay and made recommendations for its protection. In 1969 the BCDC was made a permanent agency.

The 27 member commission consists of 9 county representatives, 4 city representatives, 7 members of the general public, 5 members of various state and regional agencies, and 2 representatives of the federal government. The BCDC's jurisdiction consists of a 100 foot band of shoreline in 9 counties and 36 cities around the Bay with the exception of any portion of this territory included in subdivisions.

The powers of the BCDC include permit approval over 1) land use changes affecting the Bay and its shoreline and 2) filling and dredging in the Bay. This permit authority is used to ensure that prime shoreline sites of the Bay are reserved for specific water oriented priority land uses (ports, water related industry, airports, wildlife refuges, and water related recreation). In the remainder, the BCDC is committed to the provision of maximum feasible public access.

The BCDC has been dramatically successful in two areas: the prevention of unnecessary filling and increased public access. Since 1965 the BCDC has dramatically arrested the pattern of filling the Bay; less than one hundred acres have been filled. In several cases the negative impacts of this filling were mitigated by the mandatory enlargement of the Bay in another section as a condition of the permit. During this same period the BCDC increased public access from an astonishingly low 10 miles to over 90 miles of the Bay's 276 mile shoreline.

2. The Save the Bay Association still has a membership in excess of 20,000 people. Its continued activism serves a watchdog function for

environmentalist and conservationist interests.

3. The San Francisco Bay Regional Water Quality Control Board is responsible for water quality in the Bay and a 4,300 square mile region around the Bay. The Board consists of 9 members appointed by the Governor for four year staggered terms. At the present time the most important issue is the debate over the construction of the Peripheral Canal. If constructed the canal would divert twice the present volume of water from northern California to southern California.

Management Mechanisms

1. The BCDC originally submitted a master plan to the California legislature in 1969 after several years of study and public deliberation. This plan reserves specific areas for priority uses (ports, water related industry, airports, wildlife refuges, and water related recreation) and serves as a guideline for development in other areas. The plan is updated every 10 years.

2. The BCDC also produces Special Area Plans (SAP) with local governments for waterfront areas needing more detailed planning guidelines than are contained in the Bay Plan. The SAP's are adopted by the local government as ammendments to their general plans and by the BCDC as an ammendment to the Bay Plan.

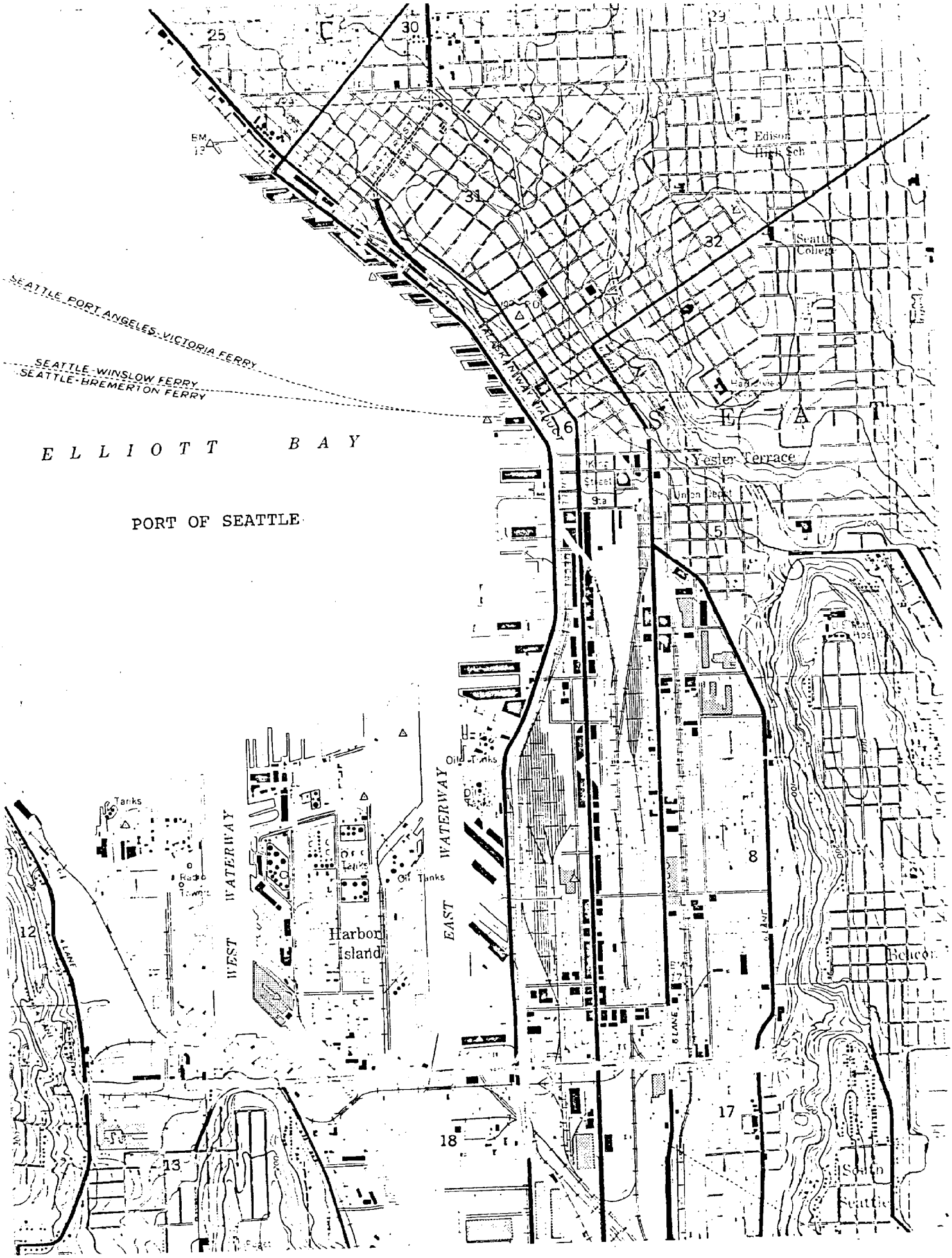
3. A referendum will be held within a year to decide the fate of the Peripheral Canal.

What is transferable?

1. A permanent regional commission, similar to the BCDC, with a mandate to develop a master plan for Boston Harbor could make a valuable

contribution. It should be pointed out that the BCDC originated in an era of uncontrolled development. The BCDC's primary function was to regulate, control, or prevent any development inconsistent with the Bay Plan, that failed to provide adequate public access or that unnecessarily proposed filling of the Bay. Boston's problems are substantially different. In contrast to San Francisco Bay in the early sixties, present day developers shun Boston Harbor because of its expensive and complicated regulatory process. Only the largest and wealthiest developers will venture through the process. A regional commission for Boston Harbor should be primarily designed to foster rather than inhibit appropriate development, but at the same time be sensitive to environmental issues.

Public access is a much more sensitive issue in Massachusetts than it is in California and Boston Harbor represents a special set of resources with special public interests which compel the maximum use of these resources. The Quirico Decision offers Massachusetts the same opportunities to provide for maximum feasible public access in all new developments in Boston Harbor.


SEATTLE-PORT ANGELES-VICTORIA FERRY
SEATTLE-WINSLOW FERRY
SEATTLE-BREMERTON FERRY
E L L I O T T B A Y
PORT OF SEATTLE
WEST WATERWAY
EAST WATERWAY
Harbor Island
Yesler Terrace
Edison High Sch
Seattle College
Oil Tanks
Radio Towers
Union Depot
Alaskan Way Viaduct
Elliott Ave
25
30
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18

Seattle

A success story

Problems

In the early 70's the Seattle economy was in a shambles, caused primarily by the depression in the aerospace industry. But while the rest of regional economy suffered, the Port of Seattle's early investments in container-handling facilities began paying off. Major shifts in waterborne cargo accompanied by the growth in grain exports and Alaskan pipeline construction trade resulted in impressive growth for the Port of Seattle throughout the 70's. Traffic through the Port more than doubled during this period.

Most of the problems in the Port of Seattle are related to this enormous growth. Land transportation linkages to the Port are weak; there is a shortage in the availability of flat cars. Many people blame the railroad companies for not being as aggressive as their shipping counterparts. Growth has caused an increasing scarcity in land available for marine terminal facilities. And like many other ports this land scarcity contributed to the shortage of recreational boat slips.

Major Actors

1. The Port of Seattle, a public corporation, is the most important actor in Seattle's harbor. Created in 1911, it is one of the oldest port authorities in the U.S. A 5 member commission elected at large oversees the operation of the port and establishes general policy. But despite the consistency in the governmental structure of the Port of Seattle, the Port has had its ups and downs.

Several times in the 20's Seattle handled more cargo than any other west coast port including Portland, San Francisco, L.A., and Oakland. But gradually over the next 30 years Seattle's share of the market decreased. By the 50's, the decline in cargo had become a serious problem. A television expose entitled "Lost Cargo" called public attention to the issue. At this point the business community, the Municipal League of Seattle and King County, and several other civic groups rallied in protest over the mismanagement of the port and its failure to capitalize on its revenue generating capacity. These groups supported the election of Frank Kitchell and John Hayden to the Port of Seattle's Board of Commissioners. The new commission dismissed the old leadership of the port, hired a new administration, and introduced some innovative strategies that led to the turnaround of the Port of Seattle.

In the sixties, the new leadership accurately recognized the importance of containerization and invested heavily in new container facilities. By the late 60's Seattle had become the most important port in the Northwest and was a shining light during the Boeing crisis. In the 70's the Port of Seattle's growth continued uninterrupted. By 1979 revenues exceeded expenses by $7.6 million.

The Port of Seattle's mandate includes the promotion and operation of marine terminals including rail and highway and the moorage and facilities for small fishing and recreational craft. Recent port projects include the total containerization of the southeast harbor from Pier 35 south to Pier 24, the planned total redevelopment of Fisherman's Terminal and the expansion of the 1,600 recreational slip Shilshole Bay Marina.

2. Seattle's Department of Construction and Land Use is the lead agency for local implementation of Washington's CZM program known as the Shoreline Management Program. As part of this program, local governments prepare master plans along state guidelines that must include classifications of priority uses and performance standards for each of these classifications. This master plan must be approved by Washington's Department of Ecology. In order to implement the program the Department of Construction and Land Use administers a permit system for all development along Seattle's shoreline. These decisions can be appealed to the state Shoreline Hearings Board.

3. The Municipality of Metropolitan Seattle (Metro) is a public corporation that has responsibility for mass transit and water quality in the Seattle area. It was formed in 1958 subsequent to strong local protest led by the Municipal League of Seattle and King County over the poor water quality of Lake Washington.

Metro's governing commission consists of 36 members; the 9 members of King County Council, the county executive, the 9 members of the Seattle City Council, the mayor of Seattle, 9 representatives from smaller cities, 6 representatives from unincorporated areas, and 1 representative of the sewer districts. Metro encompasses an area that includes 37 local governments. In Seattle's harbor they are presently investigating the feasibility of changing the point of discharge of a municipal waste plant from the Lower Duwamish River to Puget Sound. In addition they have applied to EPA for waivers for secondary treatment for three municipal waste plants. If the waivers are not granted, substantial capital expenditures will be needed to upgrade the facilities.

Management Mechanisms

1. The Port of Seattle's mandate includes the development, promotion, and operation of transportation terminals including rail and highway. This power has allowed the Port to develop advantageous programs that make it one of the most competitive ports for eastbound cargos. The Port's strategy is to consolidate cargoes bound for the same destination, thus reducing a shipper's transportation costs.

2. The Port of Seattle has gone beyond its mandate to provide public access to the Harbor. The Port's recently completed Elliott Bay Park near Terminal 86, a grain shipment terminal, includes approximately a mile of bicycle and pedestrian paths as well as Seaman's Memorial. In addition, the Port maintains a 510 foot public fishing pier completed one year ago by Washington's Department of Fisheries.

3. Washington passed the Environmental Coordination Procedures Act which allows for concurrent submission of all state permits in a one stop permit system aimed at expediting the regulatory process.

4. As part of the Shoreline Management Program, Seattle has developed a master plan for the waterfront and inventoried coastal resources.

What is transferrable?

1. The Port of Seattle's power over rail and highway terminals contributes to Seattle's competitive advantage. Massport's mandate could be expanded to include this power. This strategy might improve Boston's ability to compete with other eastern ports.

2. As the Port of Seattle has demonstrated, even in the absence of a clear mandate the Port can expand public access options. Massport

could follow their example or seek for an expansion of their mandate to include the protection of recreational interests.

3. A law modeled after the Environmental Coordination Procedures Act that provided for a one stop permit system for all state permits needed for development in Boston Harbor would help simplify Massachusetts' complicated regulatory process.

4. As was suggested in the San Diego and Baltimore sections, the development of a waterfront masterplan by each community on Boston Harbor, following predetermined guidelines, might be a desireable strategy to encourage development.

5. In the 50's a TV expose of port mismanagement was a catalyst for change in the direction of the port. A similar documentary on the problems of Boston Harbor management would be a useful mechanism for change.

BOSTON HARBOR: ISSUES AND ANALYSES

BOSTON HARBOR ISSUES AND ANALYSES: PUBLIC ACCESS

TABLE OF CONTENTS

INTRODUCTION

Use of Boston Harbor

Over the course of a year, only a small proportion of the three million inhabitants of the Boston area routinely experience or use the harbor shoreline. Except in the downtown Boston area and a few M.D.C. beaches, the water's edge is largely a forgotten resource -- hidden from view, inaccessible, and mainly in private hands. For many residents, Boston seems much more a river city, centered on the Charles, than an Atlantic gateway. There is a huge latent demand for shoreline usage that is not being satisfied by current facilities. The State Comprehensive Outdoor Recreation Plan estimated that in 1975, less than 30% of the demand for boating use and less than 20% of the demand for swimming were satisfied by existing facilities in the Massachusetts Bay area. But the problem is also perceptual: even those facilities which exist are often overlooked because they are not considered attractive, seem inaccessible, or simply are not known about. Moreover, swimming and boating are only two of the many possible kinds of uses of the shoreline, and most other activities are totally neglected or precluded by current development patterns.

Physical Character of the Harbor

San Francisco Bay is ringed by a necklace of communities whose residents inevitably spend part of the day travelling along its shores or traversing its breadth. The Bay is a point of orientation for residents of the area, it has a clear identity as a single body of

water. When a constituency formed to "Save the Bay", its members had little difficulty convincing others that it should be planned and managed as a complete entity including both water and shorelines.

Chicago and Toronto are cities which have developed in linear patterns along their lakefronts and have over the years grasped the opportunity of locating important public spaces and institutions along their shores. Residents have no difficulty in thinking of their lakefronts as continuous strips which need to be planned as a unit. The centerpiece of the Burnham Plan for Chicago (and the part most faithfully executed) was the system of lakefront parks which have guaranteed perpetual public access to the shore along most of the frontage within city boundaries. In Toronto, the islands located short distances offshore serve the same purpose -- a "living room" for the city -- as Chicago's lakefront park. Ferry access to the islands is considered a legitimate responsibility of public transit.

Residents of Halifax, a city that is a peninsula, regard their water's edge quite differently. Important vistas from Citadel Hill, the city's central landmark, to distant points across the water are carefully protected through height restrictions. The land areas with special significance are the points where important streets descend to the water's edge, not the perimeter of the peninsula as a totality.

These examples (and many others that could be cited) suggest that it is worth examining the particular geographic character of an area's waterfront for the clues to a management strategy. The need for synoptic attention is most effectively argued for areas thought of as and experienced as identifiable units.

MAJOR MANAGEMENT CONSIDERATIONS FOR A PUBLIC ACCESS PLAN IN THE BOSTON HARBOR

1. It is important to take the particular geographic character of an area into account when planning a management strategy for the area.

a. The Boston Harbor Water Surface consists of six quite distinct areas, each with its own character, tradition of usage, and set of associations with bordering communities:

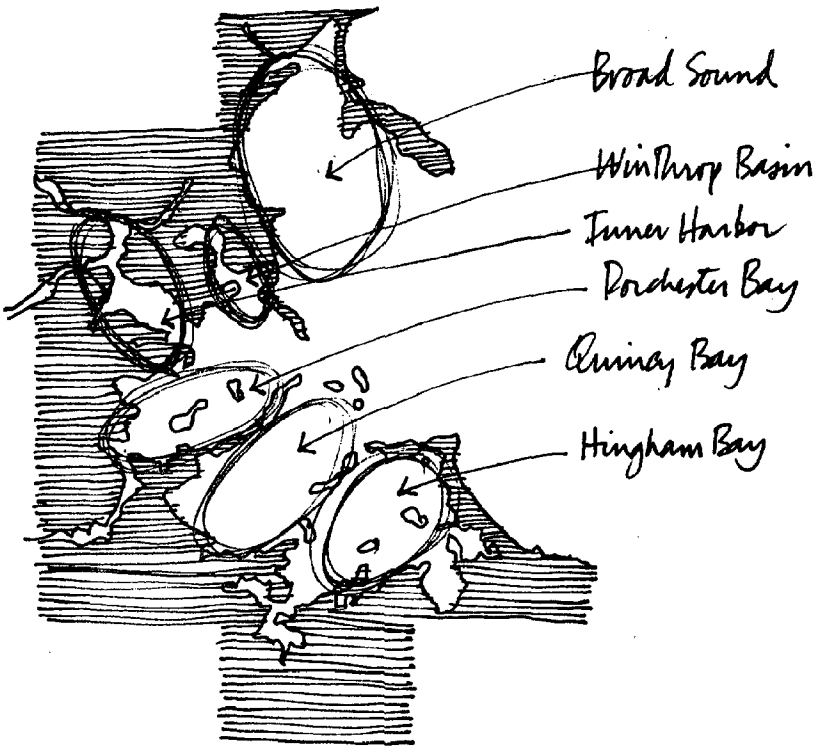


Figure 1 - The environmental sub areas of Boston Harbor

- Broad Sound, bordered by Revere, Winthrop, Lynn and Nahant;
- Winthrop Basin, bordered by Winthrop and East Boston;
- The Inner Harbor, bordered by Boston proper, East Boston, Chelsea, Everett, and Charlestown;

- Dorchester Bay, bordered by South Boston, Dorchester, and Squantum (Quincy);
- Quincy Bay, bordered by Quincy;
- Hingham Bay, bordered by Quincy, Hingham, Weymouth and Hull.

Thus the Harbor should be planned as six sub-areas for public access, rather than as a single unit. Visually, each area is relatively self-contained and the differing topography of each suggests quite different approaches to use and access.

b. The Landforms which bound the six water bodies are equally varied. However, geography ensures that a substantial part of the water's edge borders the nine or more isthmus communities which frame the bays. Each is largely insular with only a few connections to the mainland. Some were formed by joining islands to the mainland via causeways. Where beaches or other attractions are located on their shore, there is usually evidence of a struggle to mitigate the effects of "outsiders". Isolation has helped each isthmus develop its own social ecology and unique patterns of use of the water's edge.

The outer points of peninsulas and isthmuses often offer spectacular views of downtown Boston and provide commanding vistas of the bays they border. Not incidentally, they usually served in the past as the sites for fortifications and traces of these great works often remain. More recently, most have been appropriated for utilitarian purposes:

sewage treatment lagoons, a hospital, a prison, a high school, and a radar installation among them. A program of unlocking these sites and increasing their public use would do more in the way of tapping the visual potentials of the Harbor than any other set of actions.

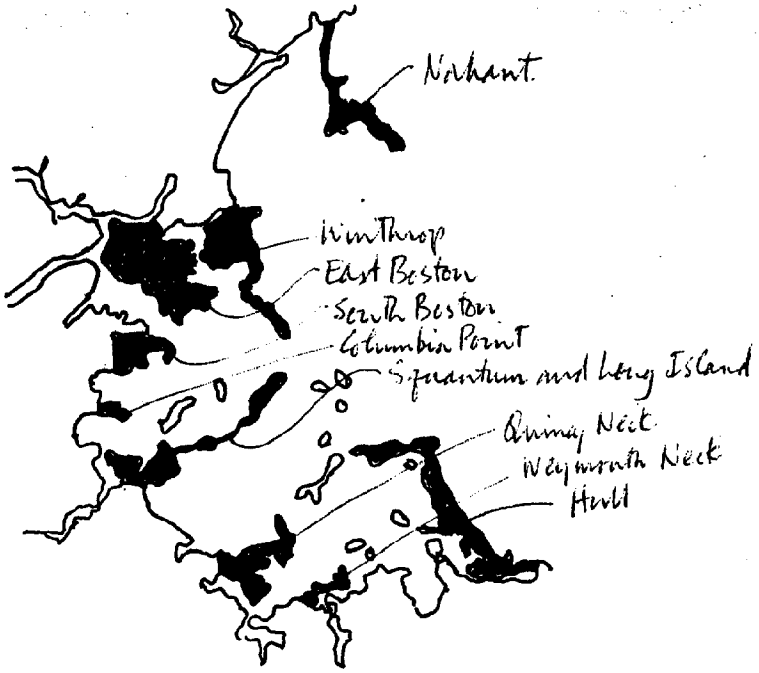


Figure 2. The six Thomas communities of Boston Harbor

c. The Harbor Islands are unquestionably the greatest of the forgotten resources of Boston Harbor. While many

know about them only as a result of flight approaches to Logan Airport, few residents of the region have ever visited them. The comprehensive plan for their development prepared in 1972 emphasizes their conservation as unique resources. Uses of the more than 30 islands would be keyed to their environmental capacities; several would be closed to the public, while the daily capacities of others would be restricted. Limits would range from 10 persons (Button Island) to 1500 persons (Georges Island and Peddock's Island). Their actual usage will, of course, depend upon the attractiveness of their facilities and the transportation available. Both are problematic at the moment.

2. It is important in planning to maintain traditions and diversity in different areas.

Geography suggests that shoreline uses and public access to the Boston Harbor must be considered differently in each of the six distinct sub-areas. Each isthmus considers its shores largely a group private domain. On some, roadways border the water's edge; on others adjacent residences claim the shoreline. The pattern would undoubtedly confound any attempts to adopt uniform approaches to public areas. Nor should there be uniformity. Public access programs must weigh the objectives of sharing unique resources against the possibility of affecting the fabric of close-knit communities. The long tradition of each peninsula and isthmus must be accounted for in planning for change. The

resolution will probably be different in each case.

From a geographic perspective, the Harbor Islands are strategically located as stepping stones between the largely developed points of the land bordering the harbor. They can be thought of as principally natural areas, in effect the last preserves of wilderness within the city as the comprehensive plan suggests. But they could alternatively be keys to a strategy to dramatically increase the range of experiences to be held at the water's edge and the number of people who can use it. As the latter, they could become attractive because of new water-related uses located on them -- not intensive commercial development, but also not excluding private involvement: a summer stock theatre tent on Georges Island and several restaurants located in its caverns, an extensive public marina between Thompsons and Spectacle Islands, with land based facilities commercially operated to support these activities on each. It is important not to preclude such options on the grounds that the islands are too valuable to be dedicated to specific groups. Among all the islands there is ample room to accommodate the special interests of many groups.

3. Equity in access to the waterfront by all economic strata is as important as physical opportunities. Many areas to the north of Winthrop and to the east of Quincy were initially developed as second home areas. Later these homes were winterized and spaces between were filled with homes constructed for

year-round occupancy. Because of this, many of the shorelines in Hull, Hingham, Weymouth, Winthrop, and Revere contain an incredible range of housing from inexpensive cottages to elaborate estates, from modest apartments to luxury condominiums. They are among the most socially and economically varied communities in the Boston area. It would be unfortunate if the unintended effects of development policies were to change this condition. New development should strive to serve an equally broad cross-section of the public.

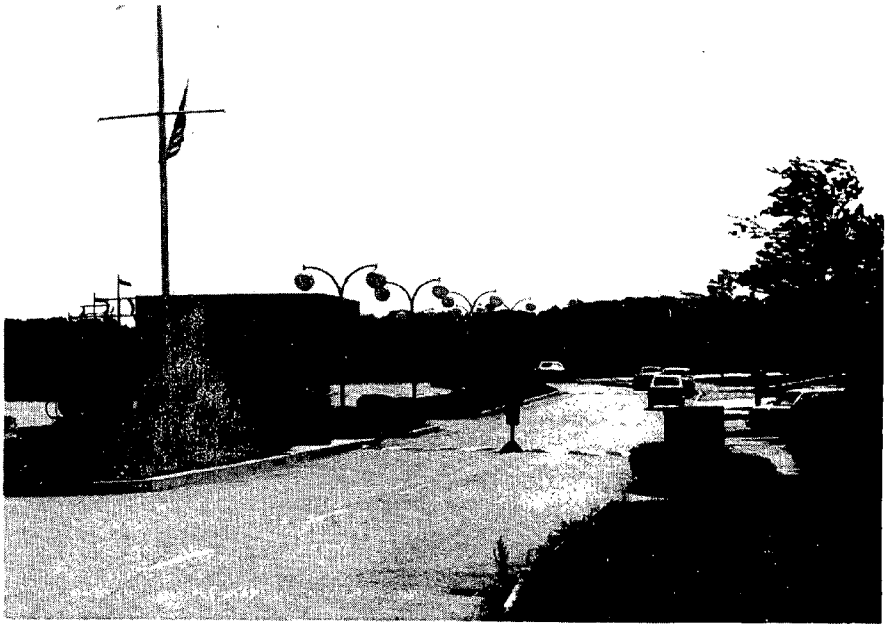
4. A true water-based transportation system appears key not only to unlocking the Harbor Islands, but also to dramatically increase the capacity of major recreation areas without eroding the quality of surrounding communities. The boat trip itself is an enjoyable excursion -- round-trip tourists often outnumber commuters on the hovercraft -- but it needs to function as a transit link equally dependable on weekdays and weekends. Shuttle buses from landings to recreation sites would complete the system with considerably less disruption to receiving communities than having to accommodate the equivalent number of people arriving by car. Accommodations for cyclists and for the paraphernalia involved in an afternoon picnic would extend the range of people who found the water transit attractive.

A dependable transit system could also aid in encouraging the development of several key sites that have the potential to become new growth centers, thereby increasing the opportunities

to live and work near the water without displacing current residents. One such location is the Hingham Plaza commuter boat terminal area, a large underutilized formerly industrial site, ideally situated astride Route 3A. Nearby, the Weymouthport Apartment development has already demonstrated that there is plenty of demand for rooms with a view above a marina.

Water-based transportation has to date fallen between the cracks of agency responsibilities. It is unlikely that a purely private system can deliver both the regular service required by communities and the peak demands during summer recreation periods. Most of all, what is needed is a transit system that functions as such, not an experimental curiosity. Only by making a long-term commitment to its development will it acquire the dependability needed to encourage its regular usage.

5. Public access plans must be included in new developments:



Two sides of the Weymouthport Apartment complex: having captured the magnificent views at the head of the Weymouth isthmus, developers conspicuously excluded outsiders from the water's edge within the development's boundaries. Lost is an opportunity to walk or cycle on one of the few shorelines that is elsewhere mostly accessible to the public. Such development is shortsighted: with minor changes it could have served as an example of knitting old and new communities. We could find no case, except in the downtown waterfront, where public access seemed to be a consideration in the form of new development.

6. Existing public access sites must be made both adequate and accessible.

   a. A map would be of great help -- not a service station highway map but a color foldout that catalogs in one place all the facilities available to the public along the edge of the water. It needs to be detailed enough to distinguish between public and private areas, showing the beaten track but not neglecting forgotten corners. And beyond that, perhaps a system of guideposts and signs could be installed which elaborate on the significance of places and explain their context -- historical and current.

   Rhode Island has created a commission to discover and map rights-of-way, those acquired or retained in fee and others obtained through prescription or longstanding use.

Having established what exists, an accounting can be made of what more is needed.

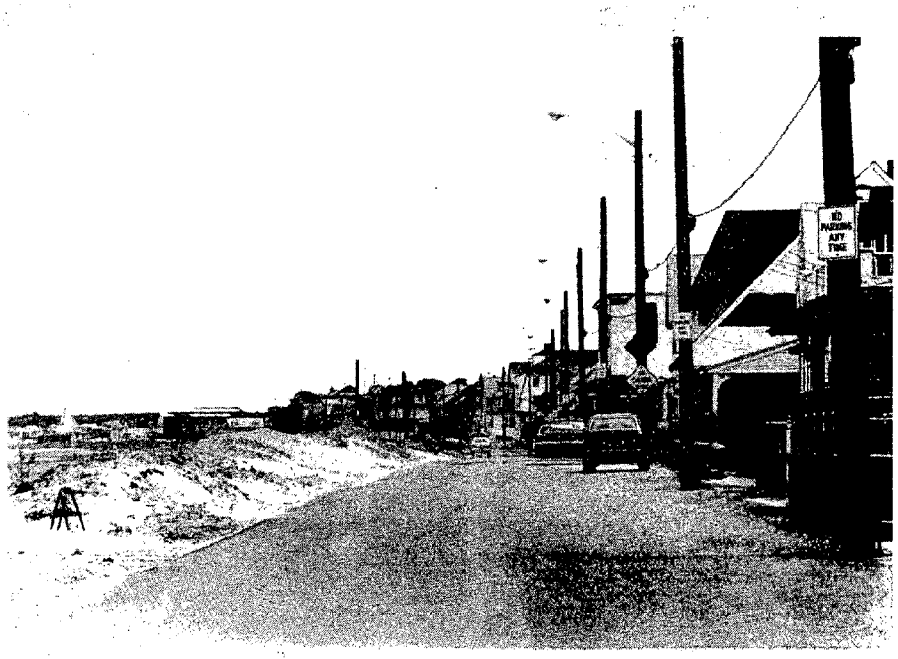
b. Make what is currently psychically and physically inaccessible, accessible.

There are many points of access to the waterfront, but a combination of official and unofficial policies frustrate people from using them. Rights-of-way aren't marked in many locations. Where streets run down to the water, parking is seldom allowed. Private fences (sometimes on public land) prevent people from straying away from the street. Owners fronting on a street along the shore sometimes "claim" the shoreline by building private decks across the street from their houses. The net effect is (intentionally) to make outsiders feel they are intruding on a private domain, whether or not the shore is legally that.

Private or Public?

What's clear is that the line is generally unclear, perhaps deliberately so.

Even when the beach is posted -- the gate is after all, open.



Why are residents parking on the street if the signs prohibit it? Where do the private yards end?

Can we walk along the shore beyond the private fence?

If this is a public area, why have the residents built private promontories across the street?

We are sure that there are perfectly reasonable explanations for each. But not knowing the answers, most people are unlikely to step across the imaginary line. The water's edge seems to be a private area, whether or not it is legally. A decent place to start in improving public access is to remove the perceptual barriers.

SPECIFIC SUGGESTIONS FOR PUBLIC ACCESS IMPROVEMENT

]. Specific Suggestions

a. Make the workaday world of the harbor available.

Massive cranes assemble LNG tankers in Quincy, unload containers in South Boston and Charlestown, load scrap metal in Chelsea fishing boats and their portside complements bustle on the Boston Fish Pier--all off limits. This is the "real" harborfront, the part that couldn't exist elsewhere. Yet children (or adults) have no adequate way of visiting or even observing it. With a little thought and a few dollars of public relations money (Who doubts that Massport and General Dynamics could use a better image?) a place surely could be found to show people what they are up to behind the chain link fences.

b. Make the Harbor Islands available.

Some of the islands are, of course, accessible if you know about cruise lines and their schedules. But they can only be reached from downtown Boston or Hull. It would make more sense if they were connected to the areas they're close to and if the cruise line schedules were, like MBTA schedules, more readily known and available. Now they are simply a mystery to thousands who see them each day.

c. Make decent fishing piers available.

True, people fish off the piers in East Boston, at the breakwater at Castle Island, at various locations in Hull, and at a few places elsewhere in the Harbor. But none of them are much of a setting for kids of all ages who are interested

in an afternoon of sport fishing. And there are plenty of places where a fishing pier could be located -- complete with a bait shop, a food concession and plenty of parking.

d. Make picnic tables available along the entire length of the waterfront.

Even granting that we may have missed one or two hidden away, there is certainly not a site for a company picnic, or a family reunion, or a Fourth of July outing, or an outdoor wedding, or any one of a thousand reasons why a group may wish to find a setting near the water. Surveys reveal that at least two-thirds of Boston metropolitan residents consider picnicking an important recreational activity. That's two million people with no place on the waterfront.

e. Make bicycle routes along the waterfront.

Perhaps a cyclist could find a way to traverse portions of the water's edge, but aside from along the three large beaches (Revere, Nantasket and Wollaston), a cyclist is no better off than a motorist. Cycle routes can help distribute people along more of the waterfront and can be a low-cost and less conflict-ridden way of providing increased access to the public.

f. Develop the headlands and points for public use.

Lands ends have a special fascination: surrounded by water on three sides, they offer the finest distant views

and give the illusion of having left the city behind. But finding them in the Boston Harbor is usually difficult and involves unmarked side streets. And what one finds there, aside from the view, is seldom worth the effort -- derelict open spaces, sewage treatment works, institutions, radar installations, etc.

g. Accommodate the boat owners in Boston.

There are thousands of boat owners who keep their boats miles from the city because the harbor lacks space to launch or moor. Additionally, visitors to Boston coming via water have no place to dock their boats for the day or longer, either.* There are many more places in the harbor where boat basins and marinas could be located if ever a coordinated plan of water and shore development could be agreed upon. One is struck by how little use now is made of the harbor surface for boating.

h. Give beaches a more attractive face.

Grim strips do neither the MDC nor their towns credit. Yet there are plenty of models for how to create a grand avenue along the oceanfront, still retaining the temporary architecture of a subway resort. Landscaping would help, as would an arcade, occasional promontories to watch and be watched from, a fishing pier at the end, even a boardwalk to celebrate walking. If they are to broaden their appeal they need to reach beyond the most hardened sunspots. At the moment, it appears that both the MDC and town maps end at their respective curbs.

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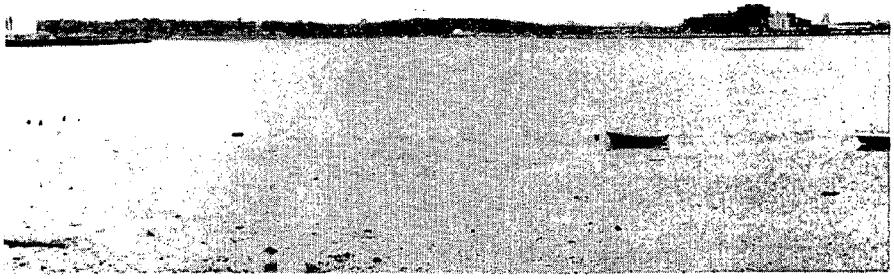
*A plan under current consideration by the Harbormaster would provide a very limited member of anchoring spots for visitors at the head of the Ft. Point Channel.

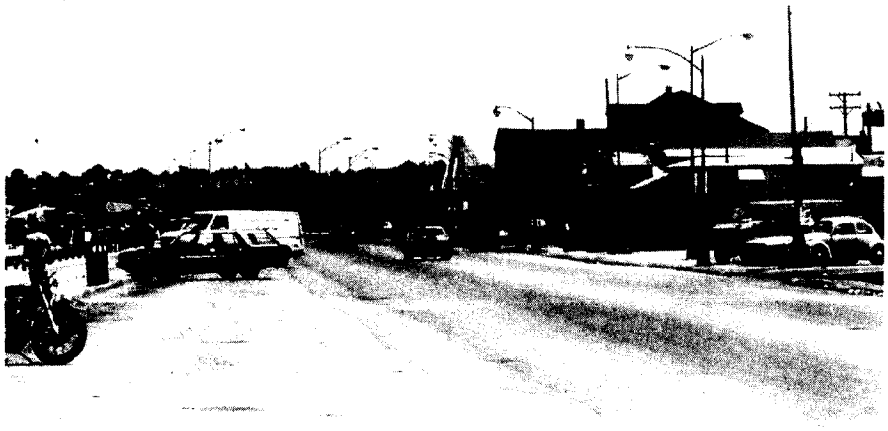
2. Specific Sites which might be Developed for Public Access

Backdoor Bay

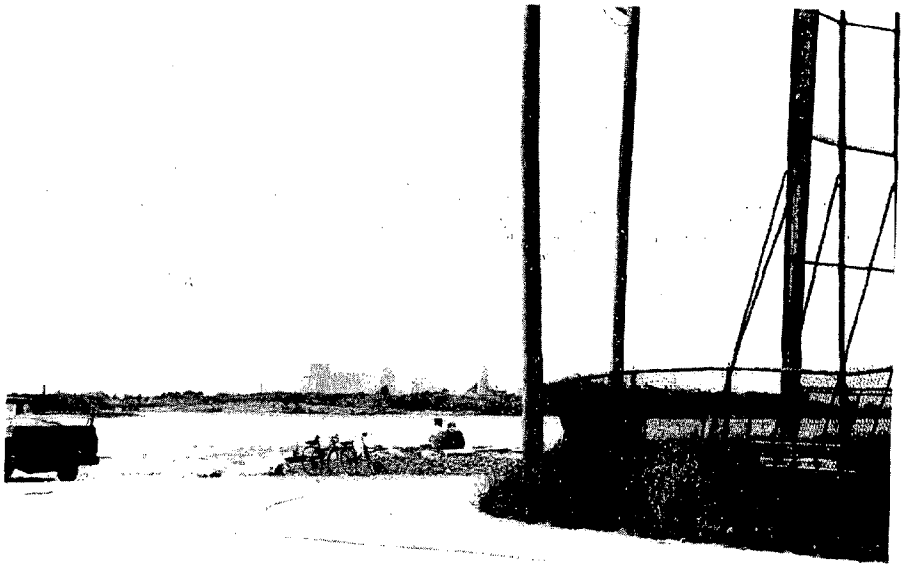


The Coastal Zone Management office recently provided Coastal Energy Impact Funds to study this area. While completed, the details of this study are unavailable. The southern half of Dorchester Bay is one of many forgotten areas of the harbor--the back door to most of its bordering uses. While it may not be possible (or desirable) to attempt to coordinate public access for the entire harbor, this area is a manageable bite. It could constitute a test case for ways of reconciling land and water use, preserving the natural setting while making it more productive in human terms. Quincy and Boston would need to cooperate in such a venture; the State could take the lead in assisting technically and financially. The result could be an agreement governing the actions of each government.

Beaches in Search of a More Attractive Face



Lands End -- Hull



For those who manage to find their way, this forgotten corner of the Hull High School playfield offers a panorama of the entire harbor: downtown Boston off in the distance; nearer are Georges Island, Rainsford Island, even the Brewsters. Across Hull Gut, the clay cliffs of Peddocks Island are within hailing distance. Such a place demands a celebration, something special, a place to linger, not the coarse rock of a disposal site. Perhaps a tower to extend the horizon a few more miles, and a map to help find bearings; some landscaping and at least a few roadway markers to guide one to the place. Points of prospect such as this could make the most of the unique form of Boston Harbor.

BOSTON HARBOR ISSUES AND ANALYSES
THE PORT OF BOSTON: STATUS AND PROSPECTS

SUMMARY

The principal opportunities for change concern the shipment of containers, even though this represents only a fraction of the cargo moving through the Port of Boston.

Containers pass through facilities belonging to Massport. The Authority is, thus, the dominant institution with which we should deal in port activities.

Contrary to much popular opinion, the Port has been operating efficiently compared to its competition. Day-to-day operations are much improved. Strategically, Massport has successfully avoided the premature investments in capacity which have plagued its competition.

Unfortunately, Boston is at a severe inherent disadvantage because of the economies of scale that appear to exist in the provision of port services. Because it is the smallest of its major rivals, it may always exhibit higher real costs.

The prospects for revitalization of the Port of Boston by improving container services are chancy. 'Cautious optimism' is the appropriate byword. We may be optimistic because traffic is likely to increase moderately if current fundamentals persist. We must be cautious, however,

because container traffic through Boston is extremely vulnerable to deregulation--which could eliminate a large portion of its traffic--and to changes in the economy.

Financing the development of the Port is unprofitable--although valuable to the city and region. We must expect that it will always be difficult to provide the money needed.

Massport, in cooperation with the city of Boston, appears to be proceeding in appropriate directions. To build on its recent accomplishments, priority now needs to be devoted to the resolution of controversies about land access to the new South Boston container facilities, and to aggressive efforts in marketing and trade development.

THE PORT OF BOSTON:
STATUS AND PROSPECTS

INTRODUCTION

This report presents the major findings and observations that result from detailed analyses of the competitive position of the Port of Boston. Our team tried to do something important that had not been tried before: to determine how Boston really compares with its competition. This information--which has been missing--is vital to realistic planning.

We looked at two principal issues:

(1) How economically--competitively--can Boston supply port services? This question has two facets: the capability of management to utilize resources efficiently, and the limitations of being a small port. We considered both.

(2) To what extent can Boston stimulate the demand for its services? To answer this we investigated the economic and other reasons that make East Coast ports attractive to shippers.

The supporting analyses are described in detail in the two Appendices: "Productivity and Returns to Scale in Container Ports", and "Strategies for Improving Boston's Competitiveness with Other Ports".

Following the findings and observations, we present a brief set of recommendations.

FINDINGS AND OBSERVATIONS

This section is organized around three topics. We begin with some preliminary observations concerning the general economic situation for the Port, and then proceed in turn to the supply of and demand for port services.

1. General Economic Situation

1a. The dynamic segment of the Port operations is the movement of containerized cargo. The other major segment, the shipment of bulk products such as petroleum and scrap metal, deals with captive markets (due to the impracticality of trucking or piping these commodities into or out of the region) and is relatively static.

1b. Container cargo moves through facilities belonging to Massport. The Authority is, thus, the dominant institution with which to deal to improve port activities.

1c. Container operations have not been profitable for Boston, nor are they likely to become money-makers in the future. This is largely due to the substantial overcapacity among competitive East Coast ports.

1d. Because the seaport is not--as different from the airport and the toll roads--a money machine, it will always be difficult to

raise money for substantial developments for the Port of Boston. Investors demand strong assurances of ample, steady revenues which the Port of Boston will find hard to provide.

1e. The justification of investments in the Port is service to the city and region. For the city, the Port activities have a direct multiplier effect in terms of jobs and business. For Massachusetts and New England, an active port gives them an alternative to New York or Montreal, and, thus, minimizes the possibility of monopolistic or discriminatory practices.

1f. The twin issues of the container facilities as a safeguard for the regions's economy and as an unprofitable operation imply a balanced development policy: the facilities ought to be sufficiently substantial to represent a credible alternative, yet not too large to entail an excessive drain on the economy.

2. Supply of Container Services

2a. Contrary to much popular opinion, the Port has been operating efficiently compared to its competition. The Port is doing nearly the best it can within its inherent limitations.

2b. Massport has successfully managed to avoid the premature investments in capacity which have plagued its competitors. Indeed, each of its four major rivals on the East Coast inaugurated major new facilities between 1974 and 1978, just when the traffic leveled off. Except for Boston, all were thus confronted with significant costs of paying for underused capacity, and with substantial losses in productivity. Boston, however, stood out for its increase in productivity, as the table illustrates.

PORT	1974-1978 PERCENT CHANGE IN:			
	PORT CAPACITY	CONTAINER CARGO	PRODUCTIVITY PER UNIT CAPACITY	
Boston	0	21	21	Gain
New York	10	-5	-13	Losses
Philadelphia	50	10	-26	
Baltimore	38	20	-12	
Hampton Roads	34	-5	-29	

2c. Massport's plans for staged development of container facilities in South Boston are likewise on the right track. The gradual staging of new additions permits management to delay or accelerate development if traffic increases differently than originally projected. Specifically, the landfill at the former Naval Annex could be dedicated to other uses if necessary or alternatively, the operations could be expanded into the proposed industrial area.

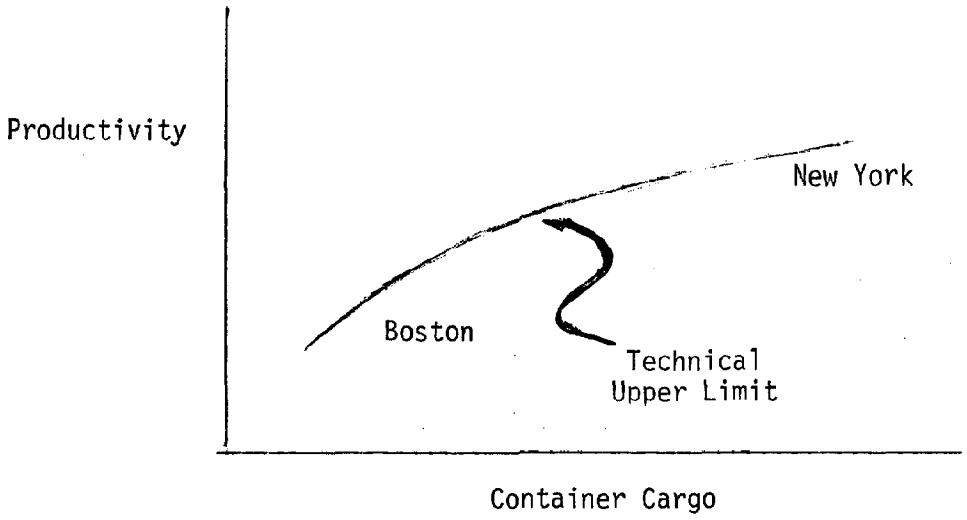
2d. In terms of day-to-day operations, Massport has recently improved its management of container operations. Equipment has been standardized, for example, leading to better control of spare parts and greater reliability.

2e. Conflicts over work rules continue to exist between management and labor. These are largely a consequence of the severe dislocations that labor has experienced as container operations have eliminated the piece-meal break-bulk cargo. These disputes are disruptive and irritating. Similar problems occur at each of Boston's competitors, however. So while many claim that Boston is unduly disadvantaged by a history of poor relations between labor and management, it is not obvious that this is correct.

2f. Two major operational obstacles to improved service concern the landside of the port. Access is both circuitous to truckers

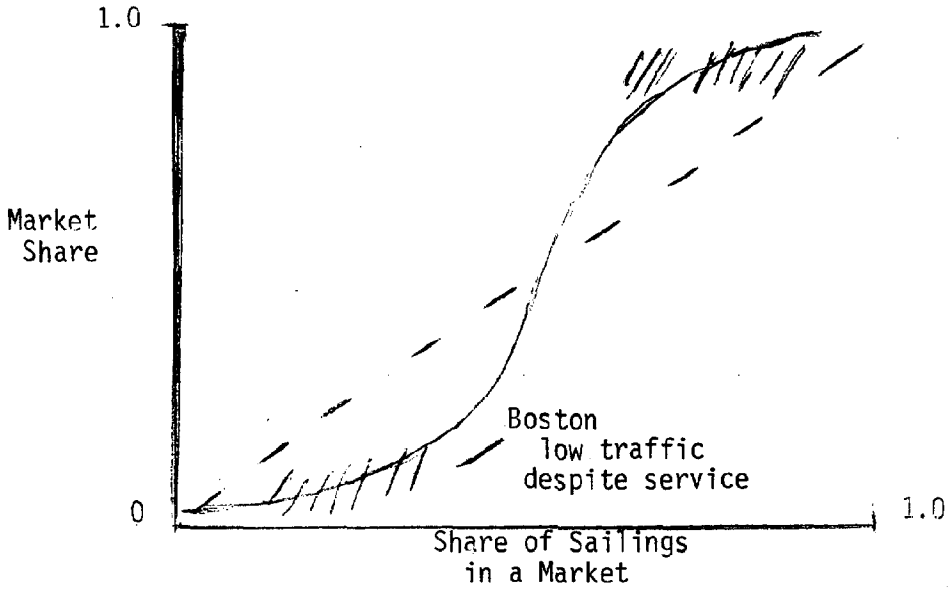
and disruptive to communities. Space for storing containers is tight and potentially the limiting factor on operations.

2g. Competitively, Boston is at a severe disadvantage compared to its rivals because it is the smallest. Indeed, the provision of container services is a field in which significant economies of scale appear to exist: larger ports can inherently achieve up to 50% greater productivity, as illustrated by the figure. This is a disadvantage which no amount of good management or labor could overcome. So long as the demand for service is lowest for Boston, as appears likely, this disadvantage will persist.



3. Demand for Boston's Services

3a. The essential fact about Boston's position in the marketplace is that it is inevitably overshadowed by New York. In this it is the victim of a common phenomenon of customers going with the winner, because the largest supplier has the size to provide a level of service its rivals cannot match. In this instance, New York provides much higher frequencies of sailings in the foreign markets with which it competes with Boston. The result is that shippers, even close to Boston, prefer to route their containers through New York. Consequently, Boston's share of these markets is proportionately lower than the service it provides. This finding is summarized by the "S" shape curve, as illustrated in the figure, typically used in market analyses.



3b. It is difficult to persuade shipping companies to call at Boston: the cargo they obtain per sailing is much lower in Boston than in New York, and a call in Boston is likely to be less profitable than in New York.

3c. Conversely, the value of getting a ship to call at Boston is not great in terms of stimulating demand. Secondary ports such as Boston are caught in a Catch-22 situation.

3d. Secondary ports such as Boston are also especially sensitive to changes in the economy. In a variant of the "last-hired-first-fired" syndrome, they are the last places a shipping line adds to its list of calls as traffic increases, and the first dropped during a recession. This vulnerability is illustrated in the Table below, showing changes in container traffic during the 1974-78 economic slowdown and recovery.

PORT	PERCENT CHANGES IN CONTAINER TRAFFIC:		
	TO BOTTOM	TO RECOVERY	RANGE
New York	-3	+5	8
Secondary			
Boston	-41	+21	62
Philadelphia	-23	+10	33
Baltimore	-4	+20	24
Hampton Roads	-23	-5	23

3e. Much of Boston's container traffic is carried by barges to or from New York. The existence of this traffic has been a consequence of rules by the Interstate Commerce Commission and restrictive agreements of the shipping cartels. Jointly, these have made it impractical for shipping lines to offer the most economic services. The regulations have limited them to providing service between ports rather than to the ultimate customers somewhere inland. When the shippers chose to save money by avoiding unprofitable and time-consuming calls in Boston, they commit themselves to delivering the containers destined for the port of Boston by an alternate means: barge service.

3f. Barge service is an uneconomic way to service the ultimate customer. Because a large portion of the cost of short-haul shipments is due to the loading and unloading of containers, it would in general be significantly cheaper to truck containers directly between New York and the customer at some inland point such as Worcester, rather than in barges to Boston and then trucks to the customer. The direct route eliminates a costly cycle of loading and unloading. It can also be much shorter and possibly save fuel (barge shipment to the Worcester customer involves almost 300 miles by sea to avoid about 100 miles net by road). Direct shipment by road is also significantly faster. Barge service thus appears largely as a perverse consequence of regulation.

3g. Boston's container traffic is, therefore, highly vulnerable to deregulation. As much as a third of it could disappear if current rules were voided and direct shipments became feasible.

3h. Deregulation would benefit customers in New England, because more economical deliveries would be possible.

3i. Under favorable circumstances--of no recession and no deregulation--Boston's traffic should increase faster than world trade generally. This is because secondary ports grow faster in times of prosperity, as indicated in (3a). Boston should have plans to cope with up to 5 or 7% annual increases in traffic, or to double capacity every 10 to 15 years.

3j. Demand may increase faster if Boston succeeds in establishing a reputation as a dominant port in some particular market, as implied in (3a). Because Boston cannot hope to compete with New York along a broad front, it would have to target its efforts to particular industries--electronic products for instance.

RECOMMENDATIONS

1. Massport should continue its process of staged development of container facilities: ready to move as traffic builds up or to pause if there is a downturn. This approach is far superior to any commitment to a massive plan, particularly when traffic is so vulnerable to elements beyond Boston's control.

2. Massport and the city of Boston should, to their mutual benefit, intensify their efforts to find viable, equitable solutions to the port's difficulties in land access for trucks.

3. Massport should reactivate its marketing efforts to develop trade through Boston. This might most effectively be done by preparing, in cooperation with particular industries, attractive packages of special services that might interest them in making Boston a regional center for the distribution of their products.

BOSTON HARBOR ISSUES AND ANALYSES:

MARINA DEVELOPMENT IN THE HARBOR

SUMMARY:

I. High Economic Benefits, both direct & indirect, come with Marinas. Demand is high for marinas in Mass, but supply is low.

II. Problems in Marina Development
   A. Economic Barriers
      1. The current economic recession affects recreational activities severely.
      2. The permitting process is lengthy, duplicative, confusing, and costly, both in itself and because of the time it takes.
      3. The cost of dredging, both in itself and as a front-end risk, is prohibitive.
      4. Other economic barriers:
         a. shorefront construction is costly
         b. leasing is too short-term
         c. borrowing is difficult

   B. Political/Administrative Barriers
      Crucial decisions are:
      1. How valuable waterfront property will be used.
      2. Who will make those decisions. Opinions vary on whether the state should take a strong role here, or whether state interests and regulatory processes should be reduced.
      3. Confusion about the Harbormaster reveals jurisdictional confusions.
      4. Coast Guard has been reluctant to establish separate navigational lanes for recreational and commercial interests.

   C. Physical Barriers
      1. Public Access issues are critical to recreational developments.
      2. Public transportation is also an issue for marinas.
      3. Water depth is so great in many places as to make pilings difficult and expensive to get in place.

III. Conclusions and Recommendations
   A. The role of government as it relates to marina operations must be examined. Government currently helps (e.g., the Boston Plan, and Federal, State and local monies), but it also prohibits growth (e.g., the permitting process).
   B. The role of the state in the permitting process must be examined: it should either tighten management of the process, allowing tandem permitting applications, and not engage in administrative/structural modifications; or redo the permitting process altogether (p. 62).
   C. Financing for borrowing and shoreline construction must be addressed.
   D. The Harbormaster's responsibilities should be further classified, e.g. the MDC, City of Boston and State's role, as well as the Federal agencies of the Coast Guard, Army Corps and EPA should be better coordinated and delimited.
   E. Multiple use activities relevant to marinas must be promoted.

Marina Development in the Boston Harbor

Recently, demand for more marinas in the Boston Harbor has been great. The economic benefits of marina development and operation to the surrounding community are also of significant dimensions. Yet marinas are not being built at as great a rate as the demand would suggest.

This case study is undertaken in an effort to understand what is happening to the proposals for marinas and what is required for their implementation. It takes place in the context of larger questions the Boston Harbor Management Project is asking about the need for public intervention in Harbor affairs, in order to facilitate growth and development in response to market demand.

The study reveals a complex picture of demand and restraints which to a large extent reflect those of the Harbor generally. It illustrates problems that need to be answered for the Harbor as a whole, if the Harbor is to be an active economic entity.

I. THE HIGH ECONOMIC BENEFITS OF MARINAS AND THEIR SUPPLY

What are marinas and what function do they serve among economic priorities for the harbor? Any discussion of marina development begs the broader issue of recreational opportunities in the harbor setting. Coastal recreation benefits cannot be narrowly construed; recreation, as a waterfront use, is advantageous as a renewal technique and can be used to complement and enhance other land/water-use priorities. According to Connolly,

> Recreation sites and activities are good 'gateway enterprises' attracting visitors who spend money on food, lodging and tourist facilities. Recreation can also spur development and impart high values to existing housing stock as well as remaining open land. (1)

This is as true for marinas as for any other recreational use. A marina is an economically independent operation for berthing pleasure boats. (13) Unlike a boat basin, with which this study will not deal, it requires a landslide component equal in area to its waterside operation. Marinas are usually targeted for industrial zone location, as their land-side operation includes industrial marine operations such as launching ramps, fuel docks, hull and engine repair shops, sales rooms, boat storage, haul-out facilities and customer services. (2) They constitute major public access routes to recreational waters and, as such, induce a significant tourist and user trade in surrounding areas. Marinas are excellent catalysts for harbor development as they have an estimated multiplier effect of 2.5 (3)

Examination of the development and operational aspects of the Taylor's Point Marina in Bourne, Massachusetts, will illustrate this "multiplier" effect on the local economy. (4) According to 1975 data, the total construction cost for the Taylor's Point marina was approximately 2.3 million dollars. One third of the total budget was allocated to labor, another third to material and one third to equipment.

Based on economic marketing models, individual multipliers were derived for each of these components. Labor had a 2.5 multiplier rate in terms of wages having a direct ripple effect through the town of Bourne and surrounding communities. Construction materials was rated at only 1.5, as only 20% of the materials were available locally. All expenditures for equipment were from outside the local area and there was little economic impact

from these expenditures on the local economy. Construction costs altogether had a direct regional economic impact of $430,000, an indirect regional impact of $500,000 and a total regional economic impact of $930,000. That is, approximately $1 million was returned to Cape communities from construction alone.

To these figures must be added the operational return. Revenue from summer berthing, winter storage, marina store sales and other operations (repair, ice, gasoline, etc.) generated approximately $200,000 per year under "mature" operating conditions. A multiplier of 2.4 for marina operational components was used. Applying the multiplier to an investment of $2.3 million, ongoing operations have had a total regional impact on the Cape of approximately $500,000 per year.

These findings may be extrapolated to the Boston Harbor with impressive results. Construction multipliers should be greater for the Boston region, as significantly more materials and equipment can be generated from the area thus keeping the original investment close to home. Operational multipliers would most likely approximate those of the Bourne example.

The preceding data illustrates the economic advantages of marina development. Feasibility, however, must be determined upon a number of additional factors, among them, user demands based on supply demand considerations and any mitigating circumstances.

Individual marinas can very significantly in terms of their size, types of berthing offered (slips, mooring, ramps) and services offered. Some are simple, offering only one type of berthing and minimum services, while others may be extremely elaborate, offering a full range of services and ancillary accommodations. Although a 1973 Rhode Island survey of boat owners revealed that the most important marina services were 1) availability of fuel and oil, 2) 24-hour security, 3) restrooms and 4) fresh water, (6), Massachusetts data indicate that owners in that state tend to require substantially more in the way of ancillary services, such as repair and maintenance services for wood-hull boats.

Boat owners in New England appear to be more affluent than in the U.S. as a whole. Nearly 15% of all Massachusetts boat owners earn more than $30,000 a year, 40% earn more than $20,000 a year, and 80% earn more than $13,000 a year (7), figures which are comparable to the national average. The primary distinction comes in the number of households under $14,000 who own boats. In Massachusetts this number is 19% compared with the national figure of 28% (1970 data). (8)

Massachusetts residents tend to own larger boats as well as those requiring significant maintenance services. Massachusetts has a smaller percentage of Class A (under 16 ft.) boats than does the U.S. as a whole, and a relatively high percentage of boats in the larger classes. One reason for this may be the coastal location and ocean orientation of Massachusetts boaters. Although 55% of all boats registered in Massachusetts are under 16 ft., 35% are between 16 ft. and 26 ft., and 10% are over 26 ft., these distinctions are important in establishing

a marina's type of berthing and channel requirements.

While there is a relatively even distribution among wood, fiberglass, and aluminum hulls for all registered boats in the U.S., Massachusetts and Rhode Island show a significantly greater number of boats having wood hulls (55% in Massachusetts compared with 30% nationwide). (9) Wood hulls require considerably more maintenance and upkeep than fiberglass. Thus, marinas in this state must provide maintenance services to meet this need.

Despite the specific usage characteristics and service demands enumerated above, Massachusetts operations remain a function more of supply than of demand. As is noted below, marinas statewide are operating at 100% capacity, thereby putting an artificial limit on the amount of demand which can be accommodated for services.

Between 1970 and 1973, Massachusetts experienced a 6% (12,000) average annual increase in boat ownership. This compares with a 3.2% increase in ownership for the New England region. During this time, the increase in total population growth remained at less than 1%. Historically, the average age of boat ownership in Massachusetts has been approximately 45 years. The continued increase in boat ownership might suggest that individuals born in the post-war "baby-boom" era are now affecting the market.

Adjusted for registrations, the average annual rate of increase for the three state region of Massachusetts, Connecticut and Rhode Island is expected to be 5% through 1985. (10) (Registrations do not include all boats owned because of different requirements in each state.) It is estimated that total boat ownership will increase at an average rate of

14,000 per year. (11) This translates into an average annual demand for 1,900 - 3,000 new marina berths per year within the three state region. Massachusetts would account for 80% of this, or 2,400 new slips per year. (12) Based on the 1976 figures projected for the current year, Massachusetts can expect to have approximately 250,000 registered boats by 1980 compared with 200,000 in 1975 (200,000 baseline at 5% per year increase).

A 1965 study conducted by the Metropolitan Area Planning Council conservatively projects a demand for 15,000 pleasure boat facilities per day in the Boston Harbor by 1990. (15) The recommendations which were generated by that study advocated the development of 300 acres of prime mooring areas for 500 small boats, locker and winter storage provisions on Rainsford Island in addition to a mooring area for 50 small boats on Deer Island. (16)

Fourteen years later, in a 1979 study by Ryerson, only four marinas, ten yacht clubs, three sailing clubs and several small boat basins were shown to serve the recreational boating needs in the harbor. The total number of boats berthed by these facilities was 4700. Summer dockage for the four marinas demonstrate that 65.8% of their slips were rented by the larger cruise class (26-40 ft.) boats, which would indicate a need for sophisticated ancillary services for this group. Yet this same study indicates that only one of the four marinas has even a supply store, pump-out station or laundry facilities. Only two of these facilities have showers and restrooms and none provide for the priority need - oil and gasoline sales. (19)

The sailing clubs appear to be prosperous, with 144 total boats. The third club, which is a community non-profit organization, served

5,200 adults and 2,300 young adults in 1979. One of the clubs declared that its gross income increased from $37,000 to $250,000 in 1978. (20)

With the exception of 20 slips on Georges Island, no public marinas exist in the harbor. A municipal marina for 500 boats is presently being planned for the town of Hull in the southern part of the harbor. The projected date of completion is 1984. Likewise, five of the piers slated for marina construction in Charlestown are earmarked for municipal ownership.

Marinas are currently operating at 100% capacity in most areas of the state, including Boston Harbor. (13) Supply capacity is so restricted by available sites and required capital investment (discussed below) that the supply/demand inequities which presently exist can be expected to worsen over the next decade. As of 1975, Boston Harbor experienced a supply deficit of 69%. Presumably this deficit has increased in the intervening years. (14)

II. PROBLEMS

Despite the high and continuing demand for berthing capability as well as the economic benefits derived from marinas, supply in the harbor remains chronically low - thereby suggesting that certain market forces exist which negate otherwise favorable development prospects. Although it would seem that the projected volume of activity would be sufficient to enable suppliers to enjoy a market advantage, economic and physical forces are at work which present difficult planning questions for the development of marina facilities. (21)

The following analysis will explore four major problem areas which presently constitute an adverse environment for successful marina

development and operation.

(A) ECONOMIC BARRIERS

1. The Current Economic Recession

Recreational facilities and considerations have traditionally been the first to experience restriction during periods of economic downturn. Indicators relating to inflation and borrowing capability in New England have demonstrated significant instability during the last several years, particularly in 1979 and the first quarter of 1980. The negative ramifications of this regional and national situation have had acute impact upon marina operations, due in part to the fact that marinas are particularly vulnerable to the increased price of fuel.

According to Robert Davidoff, owner of the Constitutional Marina in Charlestown, boating trends are now reflective of the economic situation; boat sales are substantially reduced and increasing numbers of people have turned to sail. Davidoff reports that the ratio of motorcraft to sail at his marina has changed dramatically in the last year, from 80/20 power to sail, to a 50/50 split. Yet despite the disturbing economic indicators, demand remains high. Davidoff attributes this to the fact that metropolitan residents apparently now wish to moor their boats in the harbor rather than along the outer coast, in order to stay closer to home. (22) Joseph Boudreau of the Hull Redevelopment Authority confirms this observation. His experience with the southern harbor area (Quincy Bay, Hull, Hingham and Weymouth) suggest that demand there is equally high.

The extent to which this phenomenon can continue is, according to other observers, limited. Jack Hannon, Director of the Massachusetts Division of Waterways, Department of Environmental Quality Engineering,

believes that the turn to sail will not be sufficient to save the boating industry from eventual disaster. According to Hannon, "the economy is going to croak that industry." (24) For example, sail will only exacerbate the dredging problem (discussed below), as significantly increased sail traffic will require an additional three to four feet of dredging in some existing channels.

2. Permitting Process as an Economic Barrier

Under the best of economic conditions, certain barriers exist which undermine the financial security and investment risk for marina development. One of the more significant problems in this respect is the permitting and regulatory process governing marina construction. The primary economic impact of the permitting process is revenue lost to the developer during the time it takes to meet all regulatory requirements prior to construction. Other related risks concern the front money needed to comply with the permitting process, particularly for those projects requiring an Environmental Impact Statement.

The appendix attached to this document is a "road map" of the permitting process required for the proposed Charlestown marina. (25) That marina (currently on hold because of budget overruns) is designed to accommodate five hundred and fifty boats through both public and private ownership. The entire project, including marina construction, required an Environmental Impact Statement. The estimated length of time from preparation of the EIS to actual marina construction was estimated to be four years, only one of which is necessary for construction.

Given the current rate structures for marina berthing in the harbor, it is possible to extrapolate an estimation of the revenue lost during three of these four years (assuming one full boating season was lost to construction). Assuming that the Charlestown rates would be competitive with those of the neighboring Constitution Marina at Hoosac Pier, the seasonal cost for berthing per boat is approximately $1,000 ($34 per foot, minimum slip size is 22 ft.). (26) This figure would suggest marina revenues of $550,000 per year, given 100% operational capacity. A certain percentage of this must be deducted for transient slip rentals which generally operate at 80% capacity. (27) Thus, the proposed marina at the Charlestown redevelopment site could have generated more than $550,000 per year, not including multiplier effects on surrounding economies.

The other cost related to permitting procedures is more direct, yet less significant. Joseph Boudreau estimates that preparation of the Environmental Impact Statement necessary for the Weir River marina in Hull, Massachusetts will cost approximately $100,000. (28) The permitting process will occur in tandem with this process. Tobiasson further breaks this figure down by suggesting that the engineering consultation needed to prepare the actual permit applications can cost from $6,000 to $20,000 for a large marina because professional draftsmen are needed to draw scale models. (29)

This paper will not attempt to address the permitting process in full, an undertaking requiring independent examination. Rather, two lines of thought seem to be apparent, both of which might be appropriate for consideration in a broader examination.

One school of thought suggests that the permitting process can be strengthened through tighter management and does not necessarily require administrative/structural modification; the permitting application, when conducted in tandem with the Environmental Impact procedure, can greatly reduce wasted time. That is, the responsibility should reside with the developer to generate an Environmental Impact Statement immediately, rather than wait to be told to do so by the government. Permitting applications would flow from the Impact process automatically.

An excellent example of the need for tandem procedures is the case presented by the Provincetown Harbor marina in Provincetown, Massachusetts. (30) The developer initiated permit application procedures in February, 1972 (after four months of public discussion). Two and one half years later the same developer voluntarily initiated steps for a draft Environmental Impact Statement. This decision was made after one of the original Corps of Engineers permits was suspended due to an unexpected environmental shoaling condition. The developer could have saved two and one-half years if the EIS had been pursued from the beginning of the process. The total elapsed time from original Corps permit application to Final Environmental Impact Statement was four years.

Another school of thought about the permitting procedure is that expressed by representatives of the older, more established agencies such as the Commonwealth's Waterways Division. This reasoning suggests that the permitting process is much too tight and too extensive and that overall statutory and administrative orientation of the state fosters such restriction. Such instant remedies as one stop permitting will not work. Rather, the entire regulatory process needs to be rethought by a

Task Force, ". . . now that we know what won't work." (32) Proponents of this line of thinking believe that the regulatory framework, particularly that provided by CZM as it now stands, is not sensitive to the need for development during this period of economic adversity. Developers are not provided with guidelines and encouragement for building in appropriate areas. Rather, they are provided disincentives in the form of risky front-end financial investment during a long and unnecessarily arduous process. (33)

3. Dredging as an Economic Barrier

Dredging in Boston Harbor presents a two-fold problem. One aspect is purely fiscal; the other reflects a problem alluded to earlier, regarding front-end risk-taking by the developer.

Dredging per se has become very expensive. Cost to a private developer is approximately $10-15 per cubic yard. (34) Using the Weir River Marina as an example, the 200,000 cubic yards of dredging projected for that site would cost approximately $2,400,000 ($2 million for dredging at bottom dollar plus $2 per cubic yard for the Chapter 91 Waterways Tidal Fee). This constitutes approximately 69% of the total $3.6 million estimated cost of the marina. (35)

The other problem is of an environmental nature and is related to the regulatory process. Federal statute, as administered through three separate agencies, governs the disposition of dredge spoils. Toxic dredge spoils may not be dumped on land and used as fill. Recent legislation relative to ocean dumping of dredge spoils provides a highly speculative situation for the prospective marina developer. The U.S. Army Corps of Engineers now requires a developer to finance very expensive and sophisticated tests for

spoil toxicity. These bio-assay and bio-accumulation tests for contamination can cost a developer $25,000 to $35,000 dollars. A dredge permit for the Boston Harbor is dependent upon the outcome of the contamination tests, yet the tests alone, at $25,000, take place well into the planning and developmental stage of the marina. Ocean dumping at the Harbor Foul Site, 11 miles out of the harbor, was not permitted by the Corps of Engineers until recently. (36)

4. Other Economic Barriers

(a) Costly Infrastructure -

Shorefront construction (bulkheading, pier construction, etc.) is very expensive and difficult for many private developers to accommodate. Water-edge construction costs approximately $1,500 per lineal foot due to the corrosive effects of sedimentation, tide and other coastal engineering problems. Several analysts in the field believe that government monies, used for such construction, might provide added incentive to the private sector. (37)

(b) Leasing -

Lease arrangements for water rights are another economic problem for developers. Ideally, according to professionals in the field, (38) leases should be as permanent or semi-permanent as possible. The financial investment for marina development and construction is sufficiently risky as to warrant long term lease arrangements for the developer. This arrangement is particularly important given the cost of pilings for construction. Pilings have a life expectancy of twenty-five years. Operators must have some guarantee that this investment will be realized. The Constitution

Marina is in a particularly precarious position because it has only a ten-year lease arrangement with Massport. (39)

(c) Borrowing -

Borrowing is also very difficult at the present time. CEIP monies issued as loans from the Department of Commerce are a particular case in point. The lending rate for CEIP monies can range from a low of 5% to approximately 15% (treasury bond rate). However, the rate is not set until after an extensive loan application process has been completed by the developer, reviewed and prioritized in Washington. A low interest rate, which could have attracted the developer to apply initially, could be reappraised at a higher and prohibitive rate after the application process is completed. Again, this constitutes another example of a developer placing financial resources and time in jeopardy as a front-end commitment in a speculative process. (40) The major economic areas enumerated above - permitting, dredging, costly infrastructure, leasing and borrowing constraints - collectively serve as a major impediment to successful marina development. Because of these factors, the available return on investment is generally not sufficient to induce the scale of capital investment required, particularly from the private sector.

(B) POLITICAL/ADMINISTRATIVE

The political environment surrounding marina development has the potential for being highly charged, primarily because crucial decisions must soon be made about (1) how valuable waterfront property will be used and, (2) who will make those decisions. Two of the many lines of reasoning regarding this issue are presented below.

(1) One perspective advocates a strong role for the state; the contention is that states are the most logical locus for government to establish overall planning guidelines for urban waterfronts. Consequently, so the thinking goes, states should be able to review and assist in financing local waterfront masterplans. By virtue of their broad based jurisdiction they are best in the position to review major development projects or jurisdictional disputes.

(2) A second perspective reflects the thought that the state has become far too restrictive in its administrative and regulatory procedures to the detriment of the business community.

The Commonwealth's Office of Coastal Zone Management (CZM) serves as the focal point for these two arguments. The Coastal Zone Management Act of 1972 provided financial support to Massachusetts to develop a plan (and role) for providing a rational land/water use framework for the state. CZM now consists of a set of 27 policies intended to guide environmentally sound and economically productive decisions within the coastal zone (including Boston Harbor). Those who argue for a strong state role in land/water-use decisions advocate a strengthened CZM program, in terms of financial incentives and federal consistency criteria. (40) Those who argue for a more restricted role for the state believe that a revised attitude or orientation is needed for the state - one which would deemphasize CZM federal consistency provisions, and relax or redefine regulatory procedures so as to make the state's administrative framework more sensitive to the needs of the business community.

1. Harbormaster

The absence of clear patrol responsibilities under the Harbormaster is evidence of jurisdictional confusion. Legislation is currently pending before the General Court to change a Harbormaster position from Boston

Harbor to a State agency. Adequate staffing and authority for a harbormaster is critical to the ongoing revitalization of the harbor. As use of the harbor increases for all purposes, so will the traffic and use conflicts.

The U.S. Coast Guard advocates the need for additional harbor security beyond which the current harbormaster affords. Shipping interests are already demanding separate lanes for commercial use -- similar to the model employed in New York. An automated anchorage information system might be advisable for instant retrieval of moorage information -- accessed to points all along the New England coast. This would help to maximize the full complement of boating potential in the harbor.

There has been an ongoing controversy about a Harbormaster for some years. According to those associated with the harbor, this position necessitates a broad functional approach -- the harbor and its issues are complex. In addition to the policing responsibility, the Harbormaster position must also incorporate a thorough knowledge of commercial shipping and a solid administrative perspective.

2. Other Administrative Issues

The Coast Guard has, to date, been reluctant to establish separate navigation lanes for recreational and commercial interests, even though it has the power to do so under the Port and Tanker Safety Act of 1978. Planning efforts currently underway will examine the Coast Guard's administrative reluctance to designate such channels despite growing commercial clamor to do so.

(C) PHYSICAL

Certain physical or geographical concerns related to public access and construction/engineering considerations pose added constraints to marina development in the harbor.

1. Public Access

Public access is a critical function of any recreational planning on an urban waterfront, including that related to boating operations. The recent increased demand for access to the waterfront has triggered a variety of legal and administrative attempts to address the issue. The Quirico decision, recently handed down by the Massachusetts Supreme Judicial Court, represents the single most significant impact upon the problem - and will have far-reaching ramifications on public access issues.

The Quirico Decision guarantees sovereignty of lands below mean low water. According to the Decision:

> The essential importance of this holding is that the land in question is not like ordinary private land, held in fee-simple

> absolute, subject to development at the sole whim of the owner, but it is impressed with a public trust which gives the public's representatives an interest and responsibility in its development . . . it may be used only for a purpose approved by the Legislature as a public use. (44)

As a result of this decision, the Massachusetts General Court is presently assessing the scope of its new authority. It has to determine the appropriate procedure for granting tidal lands to the public interest, and still has to issue guidelines as to what constitutes the public interest in this respect - what kinds of conditions relative to public access and land-use must now be set. (45)

2. Public Transportation

Public transportation is another major access consideration. Generally, recreational opportunities in a harbor setting are maximized if they are located within easy access to transportation outlets. The issue is more complex in regard to marina development in the Boston Harbor. The average income of the Massachusetts boat owner is relatively high (refer above). Although the trend is moving in the direction of lower income groups, the sport is still the province of the moderately well off. The proposed Fort Point boat basin with its 400-500 boat potential is ideal for this type of boat owner. The general public would stand to gain from the commercial spin-off generated by this type of operation in the middle of the downtown waterfront. However, most of the remaining space appropriate for boat moorings is in the southern areas of the harbor, not as accessible to public transportation as the downtown Fort Point area. Should additional public transportation be required to meet recreational boating needs in the southern harbor area, the issue of user impact arises. That is, for public funds to be used for transportation, a variety of income

groups, including those on the lower end of the spectrum, would have to be able to use and benefit from the boating facilities. Aside from federal regulations governing the use of public funds for transportation, this policy is a de facto outcome of the Massachusetts legislative decision making process. As Senator John Olver explained in 1975:

> How much can we justify for recreation within the total pattern of state needs? The Legislature needs to know what the unit cost of recreation is; it must know who it is going to serve . . . It has to question whether the groups to be served are or are not where the state's priorities are. (46)

Senator Olver's statement came on the heels of a legislative defeat for the original Harbor Islands bond authorization, because "only those rich enough to own boats would go to the islands."

3. Water Depth

Water depth poses a fairly substantial cost/effective problem from an engineering perspective in many of the prime marina sites in the harbor (potential). In Charlestown and in East Boston at the Massport pier site, the water is too deep to utilize standard piling techniques. The water in these areas averages 30 ft. in depth, since it covers former commercial shipping channels. Sixty foot pilings would be required for this depth and are not feasible from an engineering perspective. According to engineers concerned with this problem, (47) double pilings, braced against each other would be needed at each piling location. This cost is exorbitant. The estimated cost for pilings to be used in the Charlestown Pier 6 construction (just one of the six to be constructed (6) is approximately $250,000. This is a contributing factor to the current budget problems facing that development. (48)

Of the potential marina sites in the harbor, the Fort Point Channel poses the least problem in terms of water depth. The other area under active consideration is a site on the north side of Columbia Point, scheduled for construction as part of the Columbia Point renewal project. This site will require considerable dredging as it is only zero to two feet deep in some areas at mean low water. (49)

III. CONCLUSION

Several significant market forces appear to be affecting marina operations in a negative fashion. Additionally, certain barriers particular to the Boston Harbor are adversely affecting operations specific to that location. A paradox exists in that these forces seem to be hindering a developmental endeavor which by virtue of its multiplier effect on surrounding communities, buttressed by continued demand, would appear to benefit the region's economy.

Before the difficulties marina development has encountered can be eliminated, several problem areas will have to be addressed.

> (1) The role of government as it relates to marina operations must be examined in a more thorough fashion. Although market forces are operating independently to a certain extent, governmental activities are impacting such operations in many ways, both positively and negatively. Government has responded positively to the Harbor problem by recognizing the need for action and initiating steps in this direction. The Boston Plan for the Harbor, initiated in 1977, is a primary example of the City's active role in this direction. Funding packages with federal, state and local monies have also provided a positive incentive. State and federal permitting procedures, however, while constituting a positive protection for the environment, in the view of many, also present a negative deterrent to economic growth.

(2) Toward this end, the role of the state in the permitting process must be examined at length. The permitting process must be clarified and amended in such a fashion as to provide a reasonable framework within which harbor priorities may be realized.

(3) Financing for borrowing and shoreline construction must be addressed. Communities might be encouraged to investigate leveraging mechanisms for these purposes. The proposed Hull Weir River Marina package bears watching as a positive example. Other packages might include EDA, HCRS, UDAG, CEIP and state Waterways financing in addition to the private contribution.

(4) The powers and mandates of the office of the Harbormaster need strengthening and clarification so that jurisdictional authority is satisfactorily resolved and the allocation of responsibilities is clear, effective and accountable to constituencies, and so that the responsibilities can be effectively and adequately carried out.

(5) Multiple use activities, relevant to marinas, must be promoted because of the severe competition for high value scarce land along the waterfront. The Chelsea and Charlestown waterfront redevelopment efforts are excellent examples of combined public access and recreational opportunities, packaged for multi-user groups. The city of Chelsea leveraged the largest UDAG (Urban Development Action) grant ever given to a city under 50,000 ($6.7 million) to produce a combined marina and urban park access route for its citizens. (This was included in a development package also consisting of mixed income housing and light industrial construction.) As was mentioned above, Charlestown has produced similar results through redevelopment of the former Charlestown Navy Yard. The marina affiliated with this development is discussed above.

CHARLESTOWN MARINA PROCEDURAL SUMMARY

This section contains a step-by-step analysis of the application procedure for the various environmental permits needed for the marina.

1) APPLY for license to store flammables from Public Safety Commission

2) Fire department inspects site

3) Fire department holds hearing

4) Public Safety Commission issues license to store flammables

5) APPLY for Order of Conditions by sending Notice of Intent to Boston Conservation Commission (BCC)
   - BCC issues notice
   - BCC has 21 days to hold a hearing
   - after hearing, BCC has 21 days to issue a determination
   - dissatisfied parties have 10 days to appeal this decision to the Department of Environmental Quality Engineering (DEQE) Regional Office in Tewksbury

6) Simultaneously, APPLY for Chapter 91 license from DEQE - Regional Office in Tewksbury

7) Simultaneously, APPLY for sewer extension permit from DEQE - Division of Water Pollution Control (DWPC)
   - DWPC issues notice, has 21-day period for comments
   - possible hearing
   - after determination by DWPC, is 14-day period before permit is issued

8) Simultaneously, APPLY for discharge permit from Metropolitan District Commission (MDC)
   - application must be made jointly to MDC and to local municipality
   - MDC will approve or deny application
   - dissatisfied parties must appeal MDC permit action within 10 days
   - after appeal, MDC will issue ruling upon reconsideration
   - dissatisfied parties must appeal within 30 days
   - if there is an appeal from ruling upon reconsideration, a formal hearing will be held

9) Simultaneously, APPLY for m10 permit from Army Corps of Engineers (COE)
   - COE issues notice, has 30-day period for receiving comments
   - possible hearing

10) Simultaneously, SEND copy of MEPA letter and copy of m10 permit application to Coastal Zone Management (CZM)
- CZM issues notice, has 21-day period for comments
- possible hearing
- after comments (and hearing) CZM has 3 months to issue its decision

11) Order of Conditions issued by BCC; sewer extention permit issued by DWPC; discharge permit issued by MDC; consistency

12) SEND copy of Order of Conditions to DEQE Division of Waterways

13) DEQE Division of Waterways issues Chapter 91 license

14) SEND copies of Chapter 91 license and CZM letter to COE

15) COE issues 10 permit

16) RECORD Order of Conditions in Registry of Deeds prior to starting construction

17) COMPLETE installation of gas tanks within six months of issuance of license to store flammables OR OBTAIN an extension of the license; after installation of tanks must OBTAIN renewal of license annually

18) RECORD Chapter 91 license in Registry of Deeds within one year of issuance

19) BEGIN construction of marina within five years of issuance of sewer extension permit OR OBTAIN extension of permit

20) COMPLETE project within five years of issuance of Chapter 91 license

21) At time of opening of marina
- COMPLETE vapor recovery system
- COMPLETE waste oil retention facilities

22) 6 months after opening of marina
-COMPLETE SPCC plan
-SUBMIT semi annual discharge report to MDC and to local municipality

23) 1 year after opening of marina
- IMPLEMENT SPCC plan

FOOTNOTES

1. Mathew B. Conolly, Jr., "Coastal Recreation in Massachusetts," Coastal Recreation Resources in an Urbanizing Environment, Cooperative Extension Service - University of Massachusetts, August, 1977, p.5.

2. Gail Chmura, and Neil W. Ross, The Environmental Impacts of Marinas and Their Boats: A Literature Review With Management Considerations, Rhode Island Department of Environmental Management Marine Advisory Service, Providence, Rhode Island, p.3.

3. Taylor's Point Marina - Market Feasibility Study, Environmental Impact Statement, Town of Bourne, Massachusetts, Appendix IV, 1976, p. D-19.

4. Ibid.

5. Ibid., p. D-28.

6. Ibid., p. D-11.

7. Ibid., p. D-28.

8. Ibid., p. D-13.

9. Ibid., p. D-27.

10. Ibid., p. D-18.

11. Ibid., p. D-19.

12. Ibid.

13. Ibid., p. D-28.

14. Ibid., p. D-47.

15. Metropolitan Area Planning Council, "Boston Harbor Islands Comprehensive Plan", October, 1972.

16. Ibid.

17. A. Ryerson, Boating In Boston - A Report on Boating Facilities and Related Issues in the Boston Harbor, 1979, p. 25.

18. Ibid., p. 27.

19. Ibid., p. 28

20. Ibid., p. 29.

21. Bruce Bender and David Winsor, Marina Study: A Study of Marina Facilities Planning at Two Case Study Locations, University of Rhode Island, 1979, p. 1.

22. Robert Davidoff, owner - Constitution Marina, Charlestown, Ma., conversation - April 15, 1980.

23. Joseph Boudreau, Hull Redevelopment Authority, conversation - April 15, 1980.

24. Jack Hannon, Director, Division of Waterways, Massachusetts Department of Environmental Quality Engineering, conversation - April 15, 1980.

25. Bruce O. Tobiasson, Vice President, Childs Engineering Corporation, Medfield, Ma., conversation - April 11, 1980.

26. Davidoff, Op. cit.

27. Taylor's Point, Op. cit., p. D-20.

28. Boudreau, Op. cit.

29. Tobiasson, Op. cit.

30. Final Environmental Impact Statement - Permit Application to Cee-Jay Corporation . . . Provincetown Harbor, Provincetown, Ma., Volume I, U.S. Army Corps of Engineers, June, 1976.

31. Hannon, Op. cit.

32. Ibid.

33. Ibid.

34. Tobiasson, Op. cit.

35. Weir River Marina, Environmental Notification Form, Massachusetts Environmental Protection Agency, Hull Redevelopment Authority, Hull, Ma., February, 1980.

36. Hannon, Op. cit.

37. Maurice Freedman, Principal, Sasaki Associates, Watertown, Ma., conversation - March 27, 1980.

38. Tobiasson, Op. cit.

39. Davidoff, Op. cit.

40. Peter Kortright, Grants Administrator, Massachusetts Office of Coastal Zone Management, conversation - April 15, 1980.

41. Evelyn F. Murphy, Testimony on the Coastal Zone Management Act of 1972 before the Subcommittee on Oceanography, Committee on Merchant Marine and Fisheries, presented as Chairman, National Advisory Committee on Oceans and Atmosphere, October 10, 19

42. "Regulating Reforms", Boston Chamber of Commerce, Association of General Contractors, Construction Industries of Massachusetts, 1979.

43. Boston Harbor Associates, "A Harbormaster for Boston - Summary of a Boston Harbor Associates Forum", March 5, 1980, Boston, Ma., p. 1.

44. Supreme Judicial Court, Commonwealth of Massachusetts, Quirico Decision, August 3, 1979.

45. Sarah Carrol, Staff Planner, Office of Coastal Zone Management, Commonwealth of Massachusetts, conversation - March 25, 1980.

46. Boston Harbor Associates, "Boston Harbor . . . Who Cares?", A Summary Report of the Community Conference, June 5, 1975, Boston, Ma. p. 20.

47. Tobiasson, Op. cit.

48. Ibid.

49. Interview.

BOSTON HARBOR ISSUES AND ANALYSES: COMMUTER BOATS

TABLE OF CONTENTS

SUMMARY

A careful review and close-up look at the problem of establishing a commuter and recreational boat service in Boston Harbor reveals a number of weaknesses in the current management scheme of the Harbor which need remedying, providing further indication of some generic and specific problem areas, and some subtle strengths to be noted which could contribute to a more effective and responsive system of Harbor management more generally.

Underlying much of what follows is a recognition which flows through this entire report: that both current and potential uses of the Harbor involve a dispersed, diverse and therefore highly fragmented group of users who have in many cases no way to communicate common interests with each other, who have no way of knowing about what can be or is happening in the Harbor which could serve them. This fragmentation has the probable effect of precluding opportunities and frustrating efforts which might make the management system more responsive to dormant and not so dormant public desires and needs.

This case indicates what a focal point for public demand can do under the most difficult of circumstances. All harbor communities, however, are not as fortunate as those on the South Shore where a grass roots effort and rare leadership maintained a continuous effort to retain a commuter boat service. The Public can be a stronger constituency if afforded the slightest opportunity. Yet the absence of strong substantial interest at the state level could have made a large difference in these abortive attempts without the influence of any other more regionally-oriented agent.

A regional harbor-oriented agent, however, could have acted on behalf of those who initiated these efforts and might have more widely spread the commuted idea to the northern section of the Harbor as well as coordinating that possibility with recreational uses of the same service to make things more cost effective. Hence, the following observations and suggestions emerge from this case.

1) Commuting by water between Boston Harbor and other points on the South Shore, in the inner Harbor, even on the North Shore, is held up not by technological limitations (see other cities section), not by financial limitations, not by space limitations, not by demand insufficiency, but by simple lack of a commitment to the concept and its viability, despite proof in other cities and study after study done in Boston and the Commonwealth.

2) The current and potential uses of the Harbor's waters as a basic resource are little understood, receive little high level official recognition and have no forum or vehicle through which public interests and needs can be communicated and therefore little change can occur until some focus is provided.

3) Harbor water, with the support of Harbor lands, should be seen as a public resource which can help to ease current transportation problems in and around Boston's edges.

4) Strong governmental commitment to public harbor transportation is necessary, from the highest levels in the state to the lowest in the communities but with clear, not fragmented, responsibilities. Without this commitment, the study shows, such transportation schemes falter and die.

5) Such a system also requires strong citizen support, organized constituent commitment to the enterprise. This support seems to be in place already on the South Shore.

6) For this support to continue, a harbor transportation system needs to provide strong incentives for use by the public; that is, the ride must not take a significantly longer time than driving does, it cannot be prohibitively expensive, and it must be reliable. Further, it is crucial to the success of such a venture that there be effective, convenient, rapid linkages at both ends of the ride; that is, parking lots at the suburban end and contiguous MBTA or other transport linkages at the Boston end. This means, in part, finding good landing sites in Boston.

7) A separate agency with powers equivalent to the MBTA should be established under a Harbor Authority, with formal links to the MBTA, the Boston Transportation Department, and the State Department of Transportation. This agency should share UMTA funds equitably with other Mass. Transit activities. Since the local towns and cities should form a strong organization related to a Harbor agency, their participation should be assured. Responsibility should not be fragmented among agencies, as it was in the trial run.

All MBTA power currently exercised over alternative Mass. Transit systems must be removed to a higher authority with more objectivity and public responsiveness, e.g. back to the DPU.

8) Funding subsidies can be found in various ways: through property and sales taxes, gas and downtown parking taxes, bonds, and federal grants.

HISTORY AND DESCRIPTION

In the 1880s boat service met recreational, commuter and commercial needs with routes from downtown Boston to East Boston, Hull, Nantasket, Hingham Harbor, North Weymouth, Nahant, Gloucester, Plymouth, Provincetown and the Harbor Islands. 10,000 to 15,000 people a day were carried on those steamers until government regulations and labor costs overwhelmed them.[1]

For the past 17 years, Mass. Bay Lines has run a slow (15 mph maximum) boat from Hull to Boston once every morning, and back again once every night. The service has been steady, with a dedicated core of riders averaging 125 passengers daily, and peak summer and Friday loads. Mass. Bay Lines once made several daily summer trips to Nantasket. Bay State Spray, Provincetown Steamship Co., has for several years been operating a slow boat on one daily run from Hingham to Boston and back along with seasonal service to Georges Island and one daily round trip to Provincetown. A.C. Cruises runs a seasonal Boston-Gloucester-Boston daily trip, for three hours each way. Several of the boat lines operate harbor cruises of various sorts during warm weather.

Beginning in 1973 a group of South Shore (Hingham, Weymouth, Hull, Scituate, Cohasset, Norwell, Rockland) residents began to press for an alternative to a new route 228. When they became aware of a high speed semi-planing craft, the Hovermarine HM2, the citizen group (Route 228 committee) and the South Shore Chamber of Commerce surveyed the 12,000 area coast-to-Boston commuters regarding their interest in a 20-minute water commute for $1.10 each way. The response was overwhelmingly positive.[2]

In December of 1974 two route tests were made, one by the Hovermarine, both successful. In 1975 a South Shore commuter convinced his firm, Price Waterhouse, to do a cost-benefit study of the Hovermarine on the Hingham-Boston rute. The South Shore Chamber of Commerce also did a study of the issues and problems, the Hovermarine Corp. did a route analysis, Fred Curtis of MIT did a demand analysis. All were presented in 1975 to then Transportation Secretary Frederick Salvucci, as representative of the Commonwealth.

Richard Nakashian (proprietor of Bay State Steamship Co.), impressed with the viability of the Hull-Boston boat, approached Massport, the South Shore Chamber of Commerce, and the owner of the Hingham Shipyard with an offer to operate a similar commuter boat beginning in the Fall of 1975.

Massport agreed, made major repairs to a Hingham pier and waiting area, Nakashian ran the "Provincetown" for two months, getting an average ridership of 76 in the morning, 86 in the afternoon, with lows in rain and highs on Friday afternoons. The trip took 43-50 minutes depending on the route; the boat averaged approximately 15 knots.[3]

After Nakashian dropped the Hingham route, unsure of sufficient ridership, two other lines made intermittent efforts during the next year, both having trouble with profitability due to insufficient steady ridership, which in turn was largely due to the slowness of the total trip as compared to private cars and/or the MBTA.

In the Fall of 1976 Massport wrote a proposal for federal funds from UMTA (Urban Mass Transportation Administration) for a high speed systems demonstration. New York City got $20 million for its 6000

passenger ferry; San Francisco got $30 million for its entirely new water commuter system. Boston got nothing because of its undistinguished presentation.

In 1977 the commuter community rallied again. Edwin Colby, a Hingham commuter, got a daily commitment from 150 people, and with that persuaded Nakashian to run the slow boat again. Massport rented terminal space in Hingham for the boat, and assisted with legal procedures. The DPW provided parking space at the Hingham Shipyard under the fringe parking program for rapid transit and the car pool user parking. DPW also helped with publicity because there was reconstruction going on in the Southeast Expressway. The MBTA provided free transfers to the subway on the Boston end for commuters switching to the Blue Line at Long Wharf.

In 1977 Senator Allan Mckinnon (South Shore democrat) convinced the legislature to pass a $50,000 supplemental line item in the FY78 budget. This effectively served as the first state subsidy for a year-round harbor commuter run. One million dollars in a transportation bond issue was passed as well, in the early summer of 1977. It was understood, at the time, that the bond money was to be used for capital expenditures only (now it seems that it could have been used for certain service contracts but then would have been impractical for credit reasons and others).

In December of 1977, EOTC (Executive Office of Transportation and Construction) completed a feasibility study (updated in May 1978) for running a high speed commuter craft on the Hingham to Boston route. Included in the report were conclusions on demand for a water commuter system, suggestions for type and brand of craft, terminal locations, preliminary cost estimations, which agency should control the system,

who should subsidize, how much, and for what.

Based on the EOTC study, using $458,000 from the bond issues, the Hovercraft (HM2 Mark III) was purchased with a corporate buy-back provision. Floats and gangways were temporarily installed at the Aquarium dock (for $20,000) and a wreck was removed from the Hingham pier.[5] A one year demonstration was to begin in Fall 1978.

The Demonstration and Trial Period

The Hovercraft ran from December 1978 to October 1979, with a year round deficit of approximately $1.08 per passenger per trip. It worked well and quite reliably during good weather months. Hard winter conditions resulted in suspended trips -- up to 38% total scheduled in December and January.

In 1979 the Hovermarine also made demonstration trips to the Harbor Islands, Kennedy Library, the airport, and Chelsea. All showed time improvement possibilities over cars, but had other problems, such as T competition, poor access from water to land to offices, etc. Also, they gave the vessel no time for rest and repair, which was very hard on the Hovermarine.

In December of 1979 the EOTC evaluated the demonstration and noted that most things were as anticipated in the feasibility study. Start-up and insurance costs were higher than anticipated. Passenger complaints and suggestions were consistently for more reliability, good downtown access, faster total house-to-office trips, and variety of departure times.

In Spring of 1980 all concerned decided to keep the Hovermarine until something better could be found. All summer it was under repair. It went back in the water in late August and had more mechanical problems.

The decision was made to sell it back to the Hovermarine Corporation. Buyback value was estimated at $270,000 (which money would have reverted to the Commonwealth's general fund rather than commuter boat allotment and would have to have been reallocated/appropriated if desired. Massachusetts chose to extend this experimental period by one year, but due to a complex set of errors by the bank holding the escrow account for payback, Massachusetts was forced to inadvertently abort its option to sell back the boat and recover its funds and now owns that boat.

Meanwhile, Bill Spence of Mass. Bay Lines, as principle of Hingham Commuter, Inc., which actually holds both contracts, held the Hovermarine contract and continued to run the big, slow (15 knots) boat for one run per day while Hovermarine ran three round trips per day during late summer.

The commuters from the South Shore have clearly shown their interest, their dedication to the water as an integrated commuter possibility. They reiterated at every opportunity, however, their need for reliable, speedy service, a demand which applies to any other public transit service as well.[6]

The Hingham, Cohasset, Weymouth, etc., group is a relatively small subset of the total Boston commuter population. The South Shore, however, is a fast growing area of New England, expensive and well-known for its "bedroom" towns.

"As long as new office buildings keep going up in Boston, there will be new commuters to fill them."[7] These people have need of transportation to Boston. There are positive externalities for the area in having fewer cars on the roads, thus providing less wear on the pavement, fumes in the air, slowness through congestion, and energy inefficiency through gas consumption. The Red Line in Quincy and Braintree can provide enough convenience and economy to lure some commuters, but it is far

from the Hingham, Cohasset commuters, and so competes ineffectively with the private auto for convenience. Likewise, the parking lots at the T stops are often full by 7:30 a.m., and the trains are often uncomfortably crowded.

There is a demand. There has been an effort to meet that demand. The effort to meet the demand, in the sense of providing a long term, satisfactory solution for the substantial constituency for a water service, has not been successful. A high speed boat was purchased, maintained, utilized, but just for one year. Now only the slower boat remains, unsatisfactory for the previous high-speed commuters because it only makes one trip to Boston, at 7:20 a.m., one to Hingham, at 5:30 p.m., and is therefore limited to people who can be at work after 8:30, and always leave work by 5:15.

Why was the high-speed service begun but not continued? Many reasons can be found. It was begun first in response to the very strong and organized support of the commuting South Shore residents themselves, who were supported by Hingham State Senator Allan McKinnon who is politically secure. Too, there was strong feeling in the Transportation Department under former Governor Dukakis that if a commitment to a public service, such as public transit, has been made, it should involve a commitment to providing the best, most accomodating service feasible. The significant transportation submarket, i.e., South Shore commuters, which felt that a commuter boat ought to exist as an alternative and had supported the idea, through personal efforts, studies and surveys, ought to be given some attention and effort.

"The expressed purpose of the demonstration was to show whether the HM-2 could perform reliably and economically in New England waters on a year-round basis, and whether riders would find the high speed service desirable."[8] The demonstration was successful in terms of fulfilling its goals. It demonstrated that there was indeed a responsive demand for the high-speed, multi-scheduled service for Hingham, and also that many other places in the Harbor might also benefit from water was well as land transportation linkage.

Unfortunately, there were problems with the plan; these kept the short-term demonstration from immediately converting to a long-term established system. The DPW owned the Hovermarine which was purchased with the one million dollar transport bond, and maintained control of the unused portion of the bond fund. It would have been inappropriate and unrealistic to initiate an entirely new office or agency to handle a one year demonstration service, so an existing agency was sought. Because the South Shore was strongly united in rejecting the MBTA as operator of the boat, and the MBTA was already overloaded with work, and uninterested in taking the chance of coming in where it was already disfavored and risking its reputation further, it wasn't chosen to coordinate and run the service. Because there was strong displeasure with the whole boat idea in sections of DPW, and the department overall was therefore somewhat recalcitrant in its good faith, speedy efforts on the system, it wasn't chosen. The likely choice, especially since the plan was for a demonstration just to decide whether or not a high-speed commuter boat should run in Boston Harbor, was the EOTC which had already done so much for the

preliminary work anyway. Consequently, the EOTC took on the bureaucracy of the operation, while the money and plant facilities remained in the basically displeased DPW. It was not an ideal solution for the problem, but it was considered temporary, and therefore bearable. At that point, too, the EOTC expected that if the demonstration proved successful, the problems largely defined and resolvable, the management could be turned over to the MBTA which already had a physical plant, legal departments, a subsidy mechanism, back-up bus capabilities for emergencies, and could apply them at very low marginal cost to a small operation which served an area that the commuter trains and rapid transit presently under-supplied.

Problems, too, occurred with the boat itself. It was chosen under the awkward requirements of the Jones Act, which provides that only American built boats may be purchased for government use and sail under the American flag. The Hovermarine HM-2 was the only available high-speed boat which approached the qualifications that the EOTC's 1977 Feasibility Report had identified as economically and physically suitable for the service, and was also American-built. Again, it was recognized that this was not the ideal boat...it was smaller, and less stable than was desired, but it was acceptable for the experiment. It proved problematic, however, losing ridership because it was unreliable, especially in the winter when the winds went above 30 miles per hour. The life and reliability of any facility is dependent on how hard it is driven. In the case of this craft it was not given sufficient down-time for repairs based on the intent of its use relative to that expected from its specifications, especially during the summer when the Hovermarine did the commuter and excursion runs to the Harbor Islands. It was overworked and subject to significantly increased breakdowns.

Other Cities and their Experiences

Harbor transportation systems pose problems in many cities in the U.S. and abroad. While each situation has its unique locational differences and

problems, some of the solutions have some relevance to the situation in Boston Harbor and might be applied.

The Staten Island Ferry in New York City is operated by the New York City Department of Transportation. It is primarily a commuter service between Staten Island and Manhattan, carrying both passengers and vehicles, over 18 million of the former and 60,000 of the latter each year. It began as the only direct connection from the Island to the rest of the city, and was part of an elaborate ferry system connecting the Burroughs and New Jersey. Bridges have replaced all but this ferry, which remains direct and convenient. Clearly the primary focus now, since the building of the Verrazano Narrows Bridge, is on walk-on commuters who either walk, are dropped off, or park on Staten Island, and then walk or are publicly transited to work on the downtown end. There are very strong public transit systems on both terminal ends which serve a vital role in maintaining even the Ferry ridership. Although the New York system is old and developed more by chance than concerted planning, and it obviously carries millions more people than a city of Boston's size and geography might ever hope, it does have climactic and political conditions similar to Boston. The Staten Island Ferry is an absolutely integral part of the public transportation system, providing a cheap, reliable peak-period commuting alternative to cars on clogged bridges and highways and capacity-constrained rapid transit cars. High-speed surface effect vehicles are under consideration as supplements to the present system, although the trip is only five miles long, making the primary concerns reliability and efficiency rather than speed.

San Francisco has a two route high-speed ferry system between downtown San Francisco and Larkspur and Sausalito. The system, designed in 1977, was

planned, built, and operated with UMTA support as an alternative to another cross-bay bridge. The Golden Gate Ferry, which is able to carry up to 2,000 people per day, is serviced by free park and ride facilities with limited feeder bus capacity. The targeted market for the water service was private car users, so the system was designed with amenities similar to those found on other high quality transport modes such as commuter trains. On the other hand, San Francisco has a very different climate and marine geography from Boston, which spares many technical difficulties. It is a ferry service with relevance to Boston because it is so new and demonstrates how careful planning and open-minded viewing of the uses of boats in place of cars, and land-situated capital construction (i.e., circuitous roads, tunnels, and expensively maintained bridges) can lead to a very efficient, speedy, and pleasurable, commuting alternative.

Washington state ferries, operating in Puget Sound, comprise a complex system with 11 routes, 22 terminals, and 19 boats, carrying 17 million passengers and 7 million vehicles each year. They serve as the main transportation link between the mainland and the islands of Puget Sound. It is not, however, a primarily walk-on commuter oriented system with 10-25 minute suburb-to-downtown trips. Of interest to Boston is the fact that Washington's system deals with winter weather and fairly heavy seas with long distance trips of up to 3 1/2 hours, similar to those which might be considered for Boston to North Shore and northern New England routes. Washington is unique for its development from an old system of several private operators to a new consolidated system which is accepted as the best link to numerous water bound islands and an efficient, integral part of a total regional highway system. Waterways are used like roadways,

and boats like buses and cars to allow for the most direct trip to all points. Also of significance is the fact that the Washington ferries are subsidized entirely through State operating and capital funds of $11,000,000 per year from the state's motor fuel tax. Fares are controlled by a public board with an effort to maintaining a 75% return on operating costs. There is no federal aid whatsoever.

Vancouver, B.C. has a two part water transport system, one half of which is a passenger only Vancouver-North Vancouver service. This service was expressly designed as an integral part of the urban transit system, aiming to decrease the use of buses which cross the clogged three lane Lion's Gate Bridge. The targeted market, then, was present mass transit patrons, not private auto users. The North Vancouver terminal is currently served by a bus-and-ride area with very limited park and ride space. The ridership, nevertheless, is extremely encouraging, with 9,500 passengers on weekdays and 1,250 on weekends, and far more can reasonably be expected with the provision of park and ride facilities. The Vancouver SEABUS is a slow boat (15 m.p.h.), but the trip is only 2 miles long and a docking system was custom designed along with the vessel, enabling phenomenal space and time terminal efficiency which greatly compensates for the boat's speed.[9] The Seabus is subsidized, as a part of the entire transit network, at 70% of operating costs. This system is of long term interest to Boston because of its integration in the transit system and its use of underutilized transportation routes to decrease the congestion of public transit on roads and bridges.[10]

Guidelines for a Boston Harbor Commuter Boat System

The question now is: should Boston have a water-commuter system, and if so, what needs to be done to implement it?

First, the effort has to be organized, with strong consistent government support, of the sort that was lacking for the high-speed demonstration. A privately run system for profit might be possible. Yet, if the city and surrounding communities have a commitment to public transit, a large enough part of the public can be best (i.e., most quickly, comfortably, economically) served by water, and the beneficial externalities of less highway congestion, less pollution, less gas consumption accrue to everyone, why shouldn't the water be integrated into a public transit system?

It is often argued in Boston that the potential commuter boat market is limited to a small section of the South Shore which is within the calm, inner harbor waters. Progress made for other commuter systems with high, rough seas in the United States and abroad prove the narrow-mindedness of such a perspective. Nevertheless, the point remains that demand on the South Shore alone is strong, and ought to be met if possible.

There is question of how a service should be managed. In New York City the DOT handles the ferry. In Vancouver the mass transit authority handles the SEABUS. In Washington state the highway department handles the waterway transportation. Where the responsibility lies depends on how the system is viewed. If, in fact, Boston's commitment to water transportation is limited to the routes between Hingham and Boston and possibly Hull and Boston, perhaps the MBTA is the appropriate agency. That agency is already endowed with the legal offices, maintenance facilities, back-up services for emergencies, and financing mechanisms. Any water-based system needs landside transportation coordination if it is to have broad based ridership

(i.e. transport from downtown terminal to offices further than a 15 minute walk) and it is reasonable to have all phases under one aegis.

On the other hand, if Massachusetts makes a commitment to public water transportation as a separate system, one which covers commuting as well as recreational transportation to the Harbor Islands, and to the North Shore, the Cape, etc., an agency which handles all Harbor passenger transportation may well be justified. Such an agency might be modelled on the Nantucket Steamship Authority and could coordinate scheduling, information, fees, contracts, etc., most efficiently, operating under a permanent budget of its own.[11]

Either of these two alternatives would solidly nail a commuter boat system in place, and demonstrate its importance as an integrated, necessary alternative in the transportation network.

Then there is the problem of land-side facilities and who should provide them, where and at what expense.

Sasaki Associates did a space study for the BRA in 1977 in which they showed what boat space demands had existed in Boston Harbor in the past, what in the present, and what was projected in the future. Space for commuter/transit boat/excursion terminals was given priority in that 1977 study, and alternative sites were listed for a great many places including the south side of Commercial Wharf; north side of Long Wharf; the end of Long Wharf; between Long and Central Wharves; the north end of Rowes Wharf; between Rowes and Fosters Wharf; and the south end of Fosters Wharf.[12] Although there is clearly an abundance of underutilized land on the Boston Harbor waterfront there is a shortage of specific kinds of sites. Getting dock and terminal space for commuter boats, with or without integration in a total boating network,

requires only a commitment from the city or from the Commonwealth to such a transportation alternative. Thought must be given to a means of connection with other phases of the transit system, particularly if there is to be hope of allowing water commuting to expand to its full potential for the Harbor.[13]

It was mentioned earlier in the chapter that, commuting by water between Boston Harbor and other points on the South Shore, in the inner harbor, even on the North Shore, is held up not by technological limitations or space limitations, nor by demand insufficiency, but by lack of commitment to the concept and its viability, despite proof in other cities and study after study done in Boston. The city refuses to use Boston Harbor as a transportation resource, a vital one, just as it refused to use the Harbor as a residential resource, a commercial resource, and a recreational resource.

If the boat is to be a public service, i.e., available to the public, like the subway, buses and trains, then it must be available to all incomes, as the other modes are through subsidy. It is a form of income redistribution which is again justified through externalities and also through ethical equity issues. Finally, the state subsidizes the MBTA for Boston and other regional transportation systems (buses) in other parts of the state, so there is some validity by analogy in demanding a subsidy for the transportation of this regional sub-market.

The problem is, from where will the subsidy funds come? The MBTA gets its subsidy[14] from general revenues from the state and from property taxes from the 79 cities and towns in the operating district. It isn't clear that such an apportionment is a fair one in terms of users being

charged. It is argued that immediately adjacent towns, particularly the ones which actually have MBTA service running through them, should be paying considerably more than western Massachusetts towns, which have almost no direct contact with the T and only benefit from a few of the externalities created. Also, Boston's property taxes are high and unevenly distributed among the poor and wealthy, so that the poor in Boston (largely through filtration of property taxes into rents) pay a very high price for the T, which they certainly use, but can't really afford. In short, the property tax with regard to the T is a regressive one for redistribution both on income and region. Additionally, all the usual problems with property taxes as inefficient because they obscure individual consumer preference allocations for personal income, and can result in emigration of those able to move from higher tax areas, leaving poor there, increasingly unable to pay, etc., apply.

Nevertheless of all taxes appropriate for the provision of an in-state service which benefits a great number, if not all towns, in some degree, property and sales taxes are the best options in terms of revenue production.

The sales tax, as the other most appropriate possible action, would best be levied as a substitute user charge. For instance, a selective sales tax on gasoline and parking facilities could be used to discourage private automobile use (which now exacts a public cost in road repair, pollution and high demands on energy resources). The revenues could be used to subsidize alternative public transportation such as the commuter boat.

The incidence of such approximate user-charges is difficult to determine. It is inefficient in the sense that some consumers who use the cars and parking lots don't have public transit options. To adapt for that, perhaps it is reasonable to charge extra parking fees only in the Boston garages rather than those all around the state, since almost everyone coming from anywhere has the option of picking up the T, commuter train, or now commuter boat somewhere along the line. As for the gas tax there is no way to segregate the commuters from other natives, from the vacation travellers, but they all use roads and pollute, so it seems that they all must pay whatever very small amount is necessary to complete the subsidy requirement beyond what the garages could provide.

Fortunately, since the percentage of the poor who commute to work by car in Boston is very low (the public transit system being so well geared through subsidy and routes to accommodate low income travellers already), the tax would affect them very little, but they would receive the benefits provided from the tax paid by the externality creators. Therefore, the program would be progressive for income redistribution.

If it is argued again that the western cities and towns of Massachusetts will be paying for a primarily Boston and Boston suburb service and benefit, the best response is that there is a cross subsidy going on; the whole state

also subsidizes the west's regional transport system. Also, because the subsidy requirement, at least for the present potential of the commuter boat service is so low,[15] the garage fee would easily provide a very significant portion alone, and the gas tax could be very low (i.e., insignificantly burdensome).

Taxes, then could quite reasonably cover the deficit operating costs of the commuter boat, either as part of the present MBTA* or as a system in another agency. Capital costs may be met in a better way. There remains from the 1977 transportation bond issue roughly $500,000 plus $270,000 anticipated from the buy-back of the Hovermarine HM-2 by its manufacturer.

Borrowing from the public via bond sales is especially good for cases of allocation failures when the benefit is received in a future stream. A heavy, infrequent, non-recurring expense such as the purchase of a boat and the purchase or lease and repair of landside facilities (docking and terminal space) is well financed in this way.[16]

Finally, there remains the possibility of federal grants, such as UMTA provided for New York and San Francisco, and might well be persuaded to give to Boston if Boston were able to present an equally innovative, exemplary, broad-minded, organized, and coordinated plan and demonstration of needs and benefits. Most of that has already been done and could quickly be assembled if there were city and state government support.

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*The labor situation would have to improve markedly before the system could be reasonably implemented under an MBTA.

In short, a demand for a water segment of Boston's present suburb to downtown commuter system has been demonstrated from several perspectives: comfort and convenience for affected users, and a series of positive comfort, economic and environmental externalities for non-users. There are precedents for innovative use of water as an integrated facet of public transit systems around the nation and the world. Marine technology is well prepared to handle Boston's particular climatic and geographical requirements. The system has proven economically viable in other cities and in tests and models done in Boston, even before externalities are accounted. Funding mechanisms are available. Sites for terminal have been proposed and are available. Agencies may or may not be initiated for the system, depending on the philosophy of the planning. In either case there are good options. Boston needs very little now to coordinate and initiate its own water based section of its commuter system. It requires only an open-minded, Harbor-and-people-oriented administration with an eye to economic feasibility and the satisfying of reasonable constituent demands and a commitment to action beyond talking.

FOOTNOTES

1. Reardon, Martha, "Commuter Boats in Boston Harbor". p. 2.

2. Ibid, p. 4.

3. Ibid, p. 5.

4. Fiscal year 78 budget $50,000 (for single boat in summer).
   Fiscal year 79 budget $140,000 (for single boat plus high-speed demo).
   Fiscal year 80 budget $200,000 (major increases necessary because of rising fuel costs and demo costs were originally underestimated, particularly taxes and repairs).
   Fiscal year 81 budget $299,000

5. The remaining $5 million remains in DPW possession, earmarked for commuter boat service with one end in Boston Harbor.

6. "The evidence indicates that transit ridership is more responsive to improvements in service than reductions in fares; and reductions in access times to and from the transit station, as well as transfer and waiting times, are likely to be important in this regard". p. 461. Domencich and Kraft, "Free Transit" in Edel, M. and Rothenberg, J., Readings in Urban Economics.

7. Charles English, explaining his efforts to initiate a commuter boat service himself.

8. "Evaluation Report: Commonwealth of Massachusetts Commuter Boat Demonstration", prepared by EOTC. p. 2.

9. Note that speed on short trips is a technological problem; there is too little time to accelerate and de-accelerate without taxing and shortly damaging the engines.

10. Most details of other cities' ferry systems from "Planning Urban Ferry Services: Issues and First Year Results", Roger Roess and Philip Habib.

11. For discussion of several options, see "Feasibility Report: Commuter Boat Service, Boston-South Shore" by EOTC and CTPS. p. 10-12.

12. For further discussion of downtown terminal locations, see above, p. 29-35.

13. "Evaluation Report: Commonwealth of Massachusetts Commuter Boat Demonstration", p. 8.

FOOTNOTES (continued)

14. The deficit of the total operating costs of the MBTA, which are approximately $300 million for 1980, $40 million of which is capital expense, and the revenues from various resources including fares of $70 million, plus federal grants amounting to approximately $30 million is $160 million. This amount is made up with $80 million of general state revenues (primarily from income and sales and cigarette taxes) and $80 million from property taxes from the 79 cities and towns in the operating district - based on approximate figures from Barry Faulkner, former director of CTPS.

15. If the service is run privately with state subsidy, there would be a requirement of perhaps a 15-20% profit, on rate of return on investment. Investment obviously depends on who owns the boat and landside facilities, thus ranging from zero to several hundred thousand dollars, plus company salaries and various overhead. An operating subsidy of about $300,000 per year for a boat running eight to ten trips a day, carrying approximately 400 people round trip at an average fare of $1.60 each way ($1.75 individual, $1.50 per trip on a monthly pass, $1.25 on rare yearly pass) would be required. This would cover diesel fuel burned at a rate of 45-50 gallons per hour on a high speed craft running at an average of 22 knots per hour, making one round trip between Hingham and Boston per hour, plus wages for one captain and two stewards, plus a maintenance allowance. An unknown amount of revenue can also be expected from an on-board sale of snacks and beverages.

    (These figures and calculations are based on estimates being used by Charles English in designing his own high-speed craft, preparing to run a commuter boat under his company, Mass Bay Commuter Lines, a private operator, with hope of subsidy as described. This is similar to the subsidy now provided for the currently operating slow boat between Hingham and Boston.)

16. Mr. Salvucci, former Secretary of Transportation, recommended as one somewhat less expensive option for acquiring docking space the taking by eminent domain of a dock from the city by the state, at the discretion of the BRA. The state would then repair the dock (not having paid to purchase it) which the BRA recommended, and maintain ownership, leasing the space and routes to private operators, or work out some other authority coordination between public and private operation.

BIBLIOGRAPHY

1. "Boston Harbor: Challenges and Opportunities for the 1980's" Sasaki Associates, 1978.

2. Edel, M. and Rothenberg, J., eds. Readings in Urban Economics MacMillan Company, New York, 1972.

3. "Evaluation Report: Commonwealth of Massachusetts Commuter Boat Demonstration," Executive Office of Transportation and Construction, December, 1979.

4. "Feasibility Report: Commuter Boat Service, Boston-South Shore," Executive Office of Transportation and Construction and Central Transportation Planning Staff, December, 1977, updated May, 1978.

5. Musgrave, R. and Musgrave, P. Public Finance in Theory and Practice, McGraw-Hill, Inc., New York, 1976.

6. Reardon, M. "Commuter Boats in Boston Harbor," 1978. (published in "Second International Waterborne Conference Proceedings" ASCE, 1978)

7. Roess, R. and Habib, P. "Planning Urban Ferry Services, Issues and First Year Results," Transportation Training and Research Center, Polytechnic Institute of New York, November, 1980.

INTERVIEWS

1. Nina Brown, Planner at Sasaki Associates, principle investigator for Sasaki Space Study for Boston Harbor, 1977.

2. Charles English, principle of Mass Bay Commuter Lines, designer of own high speed boat with which he intends to run a private-for-profit commuter boat operation in Boston Harbor. Long time proponent of water commuter system.

3. Barry Faulkner, former head of Central Transportation Planning Staff.

4. Martha Reardon, South Shore Chamber of Commerce, major proponent of commuter system, between Hingham and Boston, and expanding.

Interviews, cont.

5. Frederick Salvucci, former Secretary of Transportation under Gov. Dukakis, now lecturer at MIT, Center for Transportation Studies.

6. Adrian Walters, Fellow at Joint Center for Urban Studies, Harvard and MIT. Investigator on Boston Education Marine Exchange Waterfront Planning Project; interviewer of principle harbor concerns.

TIMELINE

1973 Formed - Rte. 228

Members - South Shore Communities: Hingham, Weymouth, Hull, Scituate, Cohasset, Norwell, Rockland

Purpose - Finding alternative to proposed Rte. 228

Committee heard of Hovermarine HM2 vessel, surveyed coastal commuters to determine interest in 20 minute boat commute at proposed cost of $1.10. Very positive response. (Reardon reports unanimous interest from 12,000 commuters)

N.B. - In 1974 former Department of National Resources (now DEM) had been designated terminal operator for B.H. Islands service from Rowes Wharf. DNR also accepted responsibility for any long term leases negotiated with private boat operators, persuaded by South Shore group, determined by BRA.

1974 Test - In December - Two route tests, one of HM2, which had one successful run to Hingham. Instigated by Charles English, Hovermarine made trip in 20-30 minutes.

1975 Study - Cost Analysis

Undertaker - Prince Waterhouse (convinced by Donald White, employee and South Shore commuter) [pro bono]

Purpose - To do cost analysis of Hovermarine in attempt to catalyze efforts to action.

South Shore Chamber of Commerce also did summary of issues and problems. Hovermarine Corp. did a route analysis. Fred Curtis of MIT did a demand analysis.

7/75 All presented to Trans. Sec. Salvucci, representing the Commonwealth

8/75 Richard Nakashian (Bay State Steamship Co.) approached Massport, South Shore Chamber, owner of Hingham Shipyard, offered to operate commuter boat beginning in Fall 1975.

10-11/75 Massport agreed, made major repairs to a Hingham pier and waiting area. Nakashian ran the "Provincetown" through October and November of 1975. Average ridership was 76 in the morning, 86 in the afternoon with lows on rainy days and highs on Friday afternoons. At 15 knots the trip took 45-50 minutes.

Nakshian was not convinced that there was sufficient ridership to carry the service through the winter.

12/75 Bill Spence (Mass Bay Lines) leased a heated vessel and ran it on the Hingham route for three weeks until Christmas of 1975 before determining that it would not be profitable.

N.B.: Spence had been approached by South Shore committee in 1974 about a route from Hingham to his place on Rowe's Wharf. He was unable to take it on because he was a tenant at will (i.e., 30 day lease repeated) on Rowe's Wharf.

Spence had also been running the Hull to Boston route since 1963 as a private-for-profit operation, as required by Massport in return for the Boston to Nantasket (very profitable) summer route.

1976 Commuters banded together again, negotiated with several harbor operators for service. Convinced Matt Hughes (Boston Harbor Cruises) who then ran 3 vessels intermittently during the summer and into early fall. Ships all suffered in ridership (primarily due to slowness) and were consequently economically not viable.

Fall Massport applied for federal funds from UMTA (Urban Mass Transportation Administration) for a systems demonstration. Didn't get the award -- $20 million went to N.Y. for its 6000 passenger ferry; $30 million to San Francisco.

1977 More commuter coordinated action. Hingham resident Edwin Colley got a 150 person daily ridership commitment from 300 previous boat commuters. Convinced Nakashian to try again. Massport rented parking and terminal space in Hingham, assisted with series of agreements. The DPW was encouraging, assisting with a designated parking lot at the Hingham Shipyard, under the fringe parking program for rapid transit and car pool user parking, and with publicity because there was reconstruction going on in the Southeast Expressway. MBTA also provided free transfers to the subway on the Boston end for commuters switching to the Blue Line at Long Wharf.

1977 Sen. Allan McKinnon (South Shore democrat) convinced the Legislature to pass a $50,000 supplemental line item in the FY78 [1] budget. This effectively served as the first state subsidy for a year-round harbor commuter run.

One million dollars in the transportation bond issue was passed as well in the early summer of 1977. It was understood at the time that the bond money was to be used for capital expenditures only (now seems that it could have been used for certain service contracts but would have been impractical for credit reasons and others).

Dec. EOTC completed a feasibility study (updated 5.78) for running a high speed commuter craft on the Hingham to Boston route. Included in the report were conclusions on demand for a water commuter system,

suggestions for type and brand of craft, terminal locations, preliminary cost estimations, which agency should control the system, who should subsidize and how much and for what.

Based on the EOTC study, using $458,000 from the bond issue, the (HM-2 Mark III) Hovercraft was purchased with a corporate lay back provision. Floats and gangways were temporarily installed at the Aquarium dock (for $20,000) and a wreck was removed from the Hingham pier.

N.B. The remaining $.5 million remains in DPW possession, earmarked for commuter boat service with one end in Boston Harbor.

A one year demonstration was to begin in Fall 1978.

12/78
10/79 - Hovercraft ran, year round deficit approximately $1.08 per passenger per trip. Worked well and quite reliably during good weather months. Hard winter conditions resulted in suspended trips - up to 38% of total scheduled in December and January.

In spring of 1980 all concerned decided to keep the Hovermarine until something better could be found. All summer it was under repair. Went back in the water in late August, had more mechanical problems. Decision was made to sell it back to the Hovermarine Corp. Buyback value estimated at $270,000 (which money will revert to Commonwealth's general fund rather than commuter boat allotment, and must be reallocated/appropriated if desired).

Meanwhile: Spence* (as principle of Hingham Commuter, Inc., which actually holds both contracts) held the Hovermarine contract and continued to run the big, slow (15 knot per hour) boat for one run per day while Hovermarine ran 3 round trips.

In 1979 the Hovermarine also made demonstration trips to the Harbor Islands, Kennedy Library, the Airport, Chelsea. All showed time improvement possibilities over cars, but had other problems, such as T competition, poor access from water inland to offices, etc. Also, gave vessel no downtime for rest and repair. Was very hard on Hovermarine.

FUTURE Charles English, principle of Mass. Bay Commuter Lines of Waltham, has designed and nearly (75%) finished building a 149 passenger, high speed craft to operate between Hingham and Boston, 10 round trips per day. He expects each one-way trip to take 30 minutes, and to cost $1.75 or $3.00 round trip with a monthly ticket. With or without a subsidy he intends to run the boat (which is also equipped for several other types of uses, depending on weather and demand), provided he can find a dock.

N.B. Other seemingly qualified people consider English grossly optimistic about speed and finances.

1) FY budget $50,000 (for single boat in summer)
FY79 budget $140,000 (for single boat plus high speed demo)
FY80 budget $200,000 (major increases necessary because of rising
FY81 budget $299,000 (fuel costs and demo costs were originally underestimated, particularly taxes and repairs)

RELEVANT QUESTIONS

Why does responsibility lie with OTC?

Why has the Hingham route been chosen and no others?

How does the boat compete in terms of revenue, subsidy demand, ridership, time, efficiency with MBTA?

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*Mass Bay Lines

What control/power does MBTA have in terms of a commuter boat system?

Why is state subsidizing Hingham commuters at all?

What are major problems with immediate running of high speed (35 knots or greater, such as Hovermarine) commuter boat; i.e., access to public transport, terminal space, dock space, etc.

What kind of coordination does or should exist between commuter and recreation harbor transport?

BOSTON HARBOR ISSUES AND ANALYSES:

WATER QUALITY MANAGEMENT

MDC

TABLE OF CONTENTS

SUMMARY

The Metropolitan District Commission (MDC) was formed in the early part of this century to undertake large-scale engineering and land use projects that served the entire metropolitan region. For nearly 40 years the MDC performed this function with little opposition from the public. But in the last 20 years, public expectations and legal, institutional, and regulatory framework for water quality management have changed drastically, while the structure and mandate of the MDC have remained the same. This has caused much public criticism which has focused on the MDC's inability to address adequately problems such as combined sewer overflows, sludge disposal, urban stormwater runoff, and infiltration/inflows. But this criticism is largely misplaced. Unfortunately, not enough attention is given to the fact that the MDC was never designed as a comprehensive water resource planning agency.

This analysis has found that the MDC, as currently structured, is incapable of satisfying the growing need and pleas for comprehensive water resource planning in the Boston metropolitan area. Nevertheless, this is exactly what a growing number of voices has been asking it to do. In addition, the current structure and mandate of the MDC make it very difficult to hold the MDC accountable for inadequacies in water resource management in the Boston metropolitan area.

Therefore, this study recommends that the MDC either 1) be transformed into a water resources commission with an expanded mandate and be removed from legislative and gubernatorial influence and become a separate entity, or 2) be carefully restructured to better enable it to respond to both local needs and the comprehensive task of accounting for total water needs from wholesaling to proper treatment for its designated geographic jurisdictions.*

The new Commission could be operated as a public corporation supported by user charges. A board of commissioners consisting of elected representatives from member communities, and appointed representatives from MAPC, NERBC. EOEA, and possibly special interests groups would establish general policy for the Commission. A permanent citizens' committee would assist the board of commissioners and serve as a vehicle for public participation.

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*It is far behond the scope of this work to recommend how the MDC should be restructured, but it should be noted that the current Commissioner of the MDC hired a consulting firm this past year for more than double the cost of this entire Harbor study, to make the MDC operations more effective.

Historical Background

The Metropolitan District Commission (MDC) was formed in 1919 by the Massachusetts state legislature to undertake large-scale engineering and land use projects that served the entire metropolitan region. Their primary purpose was to protect the public health. The MDC was formed from three functionally separate construction-oriented organizations managing parks, water, and sewage. Since all metropolitan residents shared the benefits of these services the legislature felt it was important to establish a regional agency that was largely independent of local issues and politics. A regional agency isolated from local politics could expedite geographically extensive and technically intensive projects needed to protect the public health and welfare.

To maintain this independence, the MDC's budget has remained part of the state budget approved by the legislature. Individual communities pay back the state for MDC services according to an allocation formula developed by the MDC with local input. However, local communities have very little control over MDC planning and operations. The Secretary of Environmental Affairs names the MDC Commissioner, subject to approval by the Governor. The Commissioner administers the planning and operating divisions of the Commission. The Associate Commissioners are appointed by the Governor to complete the Commission. These arrangements further insulate the MDC from direct local participation.

The Boston Harbor Management Project is particularly interested in the MDC's responsibility to act as a wholesaler in the provision of wastewater collection, treatment and disposal services in the Metropolitan Sewer District (MSD).[1] Although it is commonly misunderstood the MDC's mandate

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1. The Commission is in a similar position with regard to the provision of water to cities and towns in the Metropolitan Water District.

was never to act as a water resource planning agency, but rather as a sewerage department. Wastewater managers in the early part of this century concerned themselves primarily with wastewater flows and not the waters into which wastes were emptied. Water resource and related land-use planning remained separate from the task of the sewage agency.

Changing Times

For nearly 40 years after its formation the MDC performed many of the duties of its legislated mandate with little opposition from the public. But in the last two decades, the MDC has been increasingly under attack. Environmentalist concerns over the impact of MDC activities on water quality and a changing legal, institutional, and regulatory framework have forced the MDC to reexamine its wastewater management efforts. Public criticism has focused on the MDC's failure to provide comprehensive planning in wastewater management, pointing to the need to incorporate broad goals, objectives, and consideration of all the environmental impacts in the planning process.

During the 60's and 70's a record number of environmental laws were passed related to water quality control by both the state and federal governments (i.e. the Massachusetts Environmental Policy Act, the National Environmental Policy Act, the Federal Water Pollution Control Act, the Coastal Zone Management Act, and the Clean Water Acts). Accompanying those new laws, agencies were created to manage those new regulations, perform comprehensive planning responsibilities, and encourage and incorporate public participation in the planning process. In Massachusetts in the mid 1970's the Department of Natural Resources was reorganized into the Executive Office of Environmental Affairs (EOEA) which included the new

Department of Environmental Quality Engineering (DEQE), the Department of Environmental Management (DEM), and the office of Coastal Zone Management (CZM). At the federal level the Environmental Protection Agency (EPA) and the National Oceanic and Atmospheric Administration (NOAA) emerged in 1970. In 1972 the Office of Coastal Zone Management (OCZM) was created within NOAA.

The MDC, on the other hand, was transferred intact, into the Executive Office of Environmental Affairs (EOEA). Its legislated mandate and public accountability structure are essentially the same as when it was formed more than sixty years ago. Meanwhile, public expectations concerning water quality planning have changed radically in the past twenty years. In the absence of any agency with a clear mandate for comprehensive water quality planning, the bulk of this responsibility has fallen upon one of the most visible polluters, the MDC.

The MDC has performed this function with mixed results. Its originally legislated mandate and traditional occupation involved the achievement of a strictly circumscribed objective using a straightforward set of engineering principles; its concern centered upon the wastes of the city. Today, however, it is expected to perform a very intricate task in accomplishing a very broad set of goals over a wide range of activities. It must now focus upon the receiving waters of its discharges and all the problems of the commons and responsibilities which go along with managing a public good. Comprehensive water quality planning places a heavy responsibility upon the MDC by entrusting to it the management of the waters of Boston Harbor in the interest of the public, to whom that good belongs.

MDC: The Wrong Agency for Water Quality Management

While public expectations and the legal, institutional, and regulatory framework for water quality management have changed drastically over the past two decades, the structure and mandate of the MDC have remained the same. Public criticism has focused on the MDC's inability to address adequately problems such as combined sewer overflows, sludge disposal, urban stormwater runoff, and infiltration/inflows. But this criticism is largely misplaced. Not enough attention is given to the fact that the MDC was never designed as a comprehensive water resource planning agency.

This analysis has found that the MDC, as currently structured, is incapable of satisfying the growing need and pleas for comprehensive water resource planning in the Boston metropolitan area. Nevertheless, this is exactly what a growing number of voices has been asking it to do.

Inappropriate Structure

The inappropriate structure of the MDC is the major reason for this function-agency mismatch. As wholesaler, the MDC has no jurisdiction over the MSD members' sewer systems (upstream of the MDC system). The MDC has confined itself strictly to its legislated mandate and never interfered with members' systems until they were recently compelled to by EPA regulations. Not only has the MDC historically ignored problems upstream, but they have refused to bear the full burden of poor operation and maintenance of member systems. Inevitably diminished water quality in Boston has been a consequence of this inappropriate structure. Since the MDC mandate did not include the protection of Boston Harbor water

quality, MDC officials acted as if the problems of maintaining the public commons was none of their concern.

Furthermore, this inappropriate structure has made it very difficult to hold the MDC accountable for an overburdened system. The present structure places responsibility for sewer maintenance and pollution abatement on member communities.[2] Each member is only accountable to itself[3] leaving little incentive for an individual community to clean up its system. Clean up is costly for a single community, and the meager benefit accruing to a single community for improved Harbor water quality, shared by all communities regardless of whether they cleaned their systems or not; thus, there is an equity problem.

Until recently, the state legislature has had little incentive to change the present structure of the MDC. Since the MDC needs legislative approval of its capital and operating budgets, patronage has been a major factor in MDC job appointments and contract awards. This abuse of power inevitably resulted in inefficiency and waste. As the environmental and political costs of the present structure have increased, so have the pressures for change. Unfortunately most of these efforts have not been aimed at the fundamental problem -- the structure and mandate of the MDC. Furthermore, the MDC's placement within the Executive Office of Environmental Affairs (EOEA), while desirable in its recognition of the Commission's key role in protecting the environment, may actually weaken the role of other departments in EOEA. It is possible that the regulatory powers of the Department of Environmental Quality Engineering (DEQE) as well as the influence of the Department of Environmental Management (DEM) and

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2. See G. Blossom, "Accountability as a Problem in Water Quality Planning and Wastewater Management. Case study - Boston" for a discussion of this problem with respect to combined sewer overflows and stormwater runoff.

3. Only recently have infiltrator/inflow analyses become required; largely due to federal regulation.

the Office of Coastal Zone Management (CZM) would be enhanced if the MDC were not part of EOEA. Further investigation is needed to substantiate this hypothesis.[4]

Additional Problems

The inappropriate structure of the MDC has caused four additional problems that further exacerbate this function-agency mismatch:

1) MDC's lack of accountability;

2) MDC's lack of coordination with other agencies;

3) MDC's failure to plan for meaningful public participation; and

4) MDC's inability to respond to information needs.

1) Lack of Accountability

Whereas citizen's groups and local communities complain that the MDC has not been responsive to their water quality concerns, it is often overlooked that the MDC was never designed to be accountable to these constituencies. At the beginning of this century, the legislature established the MDC as a regional agency that was to act independent of local issues and politics. At that time a need was felt for an agency that could expedite large scale engineering and land use projects that protected the public health and welfare; a regional commission, isolated from local politics, appeared to be the solution.

However, the political climate and environmental conditions have changed radically since the MDC was formed. Popular opinion demands a broad view of water quality management. Sewerage management, a major MDC function, is only one responsibility of a water resource agency; the MDC has inadequately addressed other problems that people are concerned

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4. The Commission's position as a state-controlled entity often complicates the enforcement efforts of the DEQE, especially, and those of the EPA (insofar as the latter depends upon the state agency for assistance). The MDC is not easily held accountable for inaction resulting from state bureaucratic delays. See A.O. for examples of reasons for MDC delays in adhering to the Enforcement Compliance Schedule Letter.

about. The inappropriate structure of the MDC is the major cause of this lack of accountability.

2) Lack of Coordination With Other Agencies

The New England River Basins Commission (NERBC) and the Metropolitan Area Planning Council (MAPC) also play a part in water quality planning in the Boston area, predominantly through the Federal Water Pollution Control Act (FWPCA) Amendments. However, the planning efforts of these agencies have not significantly influenced decision-making for wastewater management, either because there was no linkage with the MDC to assure that this occurred, or because the planning itself was inadequate, in timing or in content. Neither organization has the influence to assure coordination of wastewater management with their water resource planning efforts. In particular the Southeastern New England water and related land use plan (SENE) prepared by the NERBC was very successful in tackling large scale issues in a comprehensive manner, but it has been largely ignored. No agency has been willing to use the plan as a framework for its specific small-scale planning efforts.

In addition the MDC with the policies of the Environmental Protection Agency (EPA) has not been able to coordinate its wastewater management strategies. The EPA's indecision over enforcement of secondary treatment requirements has provided a convenient excuse, but also a real reason for inadequate MDC planning efforts. A concerned public can hardly hold the MDC accountable for inept planning if the federal government cannot make up its mind. Rapid regulatory changes hinder planning efforts and accountability attempts.[5]

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5. See Blossom, "Accountability," for a detailed discussion of the MDC and the secondary treatment requirement and waiver.

Other government organizations, such as DEM and CZM, though charged with planning tasks strongly related to wastewater management and water quality, have had little role in wastewater planning efforts. Furthermore, the MDC has seldom taken the initiative to coordinate its wastewater management strategies with agencies (such as the Boston Water and Sewer Commission) in member communities.

3) Failure to Plan for Meaningful Public Participation

The inappropriate structure of the MDC discourages local participation in planning efforts. The MDC's insulation from local issues and politics may have been a desirable feature 50 years ago, but is incompatible with present participatory planning practices.

Informal citizens' groups established to push MDC to action have had some impact on MDC planning.[6] But this type of public participation has generally come too late in the MDC planning process to effectively improve the planning results and the public pressure is usually a reaction to already formulated plans. Inevitably this kind of input results in delay or cancellation of a project accompanied by further expensive planning.

However, pressures for correcting the inadequacies in wastewater management in Boston are growing. The Boston Harbor Citizen's Advisory Committee (BHCAC) has had some success in promoting discussions with the MDC about its (MDC's) planning efforts. BHCAC has also provided a forum for public participation in water quality planning. A parallel development on an agency level was the formation of the Boston Harbor Interagency Coordinating Committee (BHICC). It was the outgrowth of a

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6. See Blossom, "Accountability," for a detailed analysis of opposition from Winthrop residents to the various sludge incineration proposals at Deer Island.

State Attorney General suit against the city of Boston for pollution. The Boston Water and Sewer Commission (BWSC) responded to the suit by initiating discussions among all relevant agencies to get appropriate action. This prompted the state to drop the suit. The BHICC has facilitated coordination of water quality planning efforts among Massachusetts environmental agencies and the EPA. Although it has only existed since 1979, the efforts of the Committee have proved reasonably successful. While the BHICC was not meant as a substitute for comprehensive water quality planning, it has injected a degree of comprehensiveness into the implementation of current projects. These kinds of efforts are definitely a step in the right direction to meet current needs. However, if similar problems are to be avoided in the future, it will be necessary to make more fundamental changes in the structure of wastewater management of the MDC.

4) Inability to Respond to Information Needs

Although some limited studies were mandated by the waiver application, the MDC has never carried out a consistent program of sampling or analysis of the effects of discharges from the MDC system upon the Harbor environment. Such activities are far removed from its role as wholesaler. The MDC has, therefore, relied heavily on studies done for other government agencies, even though these have been sporadic and very limited in scope. In fact, despite the availability of qualified research facilities near Boston, this region lags far behind other areas of the country in its knowledge of the effect of its municipal waste on the marine environment.[7] It was the evidence gathered from other coastal communities which led to the waiver application process. These communities have been far better equipped to

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7. For an example of perhaps the most advanced in-depth research of this kind by wastewater agencies, see The Southern Coastal Water Resources Project Annual Report.

adapt to changing regulatory conditions (indeed, even to influence these conditions) than the MDC. The adaptability of these areas has minimized wasted time and efforts especially with regard to the secondary treatment requirement and waiver.

Citizen's groups have continually requested concrete information concerning the effects of wastewater on the marine ecology of Boston Harbor. Although this kind of scientific data is essential to effective and comprehensive water quality management, the MDC has never adequately addressed these information needs. The insulated structure of the MDC inhibits responses to these requests.

Recommendations

As currently structured, the MDC is the wrong agency for water resource planning in the Boston metropolitan area. For over 20 years the MDC has shown that it is incapable of adapting to changes in the legal, institutional, and regulatory framework of water quality management. The solution is either extensive reorganization of the existing MDC,* or the creation of an entirely new entity for water quality management.

Since the MDC serves metropolitan Boston, it would be more appropriate if the MDC served the residents of this region directly and not through state government. Therefore, this study suggests an alternate option that the MDC might be transformed into a water resources commission, and exist as a separate governmental entity. The new Commission could be operated as a public corporation supported by user charges. A board of commissioners consisting of elected representatives from member communities and appointed representatives from MAPC, EOEA, and possibly special interests groups would establish general policy for the Commission and hire an executive director who oversees day to day operations. A permanent citizens' advisory committee should assist the board of commissioners and serve as a vehicle for public participation.

In addition, the Commission would need an expanded mandate. The Commission should have the responsibility as well as necessary powers to intervene in communities that are not maintaining or operating their systems effectively. The Commission will need the power to introduce and coordinate water resource protection actions and policies in all represented communities.

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*See MDC Reorganization Study, obtained from the MDC.

Furthermore, the Commission should have the powers and responsibility to maintain the public commons--in this case, the water resources in the Boston metropolitan area, particularly Boston Harbor.

This new structure and the expanded mandate would give the Commission the necessary power to deal with water quality management problems that will be even more critical in the years ahead. There are several advantages to this structure:

1) Many positive characteristics of the MDC would be retained in the new structure. The ability and experience of the MDC in handling problems which require an areawide solution are valuable assets that should be preserved.
2) Elected representatives with the assistance of a citizens' advisory committee would establish general policy, select alternatives, and prioritize projects, which would make the new Commission more accountable and responsive to local constituencies.
3) Coordination of wastewater management efforts would be improved by the Commission's new powers within communities.
4) Patronage opportunities would probably be reduced once the budget approval process was no longer a responsibility of the state legislature.
5) Public participation would be ensured via the citizens' advisory committee. This citizen input would probably make the Commission more responsive to information requests.
6) Regulatory powers of DEQE and DEM would probably be enhanced if the Commission were not part of EOEA. At the same time EOEA would continue to influence the operation and planning of the Commission

through its representative on the board of commissioners.

7) Coordination of the MAPC, and the Commission's planning efforts would be improved since the MAPC would have representatives on the board of commissioners.

APPENDIX

The Commonwealth of Massachusetts
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STATE HOUSE, BOSTON 02133

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MATTAPAN, MA 02126

Committees on
Banks and Banking
Federal Financial Assistance
Vice-Chairman
Government Regulations
ROOM 42
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COMMENTS ON BOSTON HARBOR MANAGEMENT PROJECT REPORT FOR THE SPECIAL COMMISSION ON DEVELOPMENT OF BOSTON HARBOR

Representative Thomas Finneran, Chairman
Subcommittee to Review Seagrant Report

At the outset, it is important to note that our existing governance mechanisms find their historical foundations mainly in the need to represent people as opposed to places. Since there are very few people who "live" in or on the waters of Boston Harbor, the lack of any specific public body controlling and speaking for the Harbor is understandable, but moreover, in looking to create a new mechanism or to reorganize what we have, close attention must be paid to the structure of such an institution given the area's unique geopolitical nature.

Particular attention must also be paid to the current crisis in our economy and in the distribution of public resources. Improvements in the manner of doing public sector business in Boston Harbor which also spend the same or fewer dollars will be much more attractive.

SPECIFIC COMMENTS

II. "Specific Recommendations"

(A.1, a, b) *In several sentences, the author offers what seems to be the central recommendation of the report. We are teased with two options without any offering of real substance, i.e., institutional structure, legal foundation, likely or necessary participants, etc. A discussion of the inherent weaknesses and strengths of the options offered would be helpful. I need a more complete picture to begin to understand where the author is leading me.*

(C.) *Is the author suggesting that the Boston Harbor portion of the CZM program should be placed under the direct control of a Harbor Authority. If this is true, it should be clearly stated. If something else is intended, then say it. Ambiguity in a report of this type will seriously hinder its effectiveness.*

(D.) The proposed Harbor Authority should have a clearly defined role in the development process --possibly as a clearinghouse or project facilitator. This role should be spelled out in this section.

(E.) Voluntary federations of governmental bodies have not proved their value in our area. Extra staff are hired by the various governmental bodies who are members to attend meetings where more "studies" is the usual conclusion. Decision makers do not typically involve themselves so no decisions are made and definite support for projects is not forthcoming. I am not persuaded by this idea.

(F.) The Legislature must necessarily play a major role in whatever new authority is created for the Harbor. A permanent oversight committee would be redundant if the new harbor authority is properly structured.

III. Recommendations for Interim Steps:

A. I oppose the concept of funding public interest groups by the Legislature. My reasons are as follows:

1. Public interest and community groups are "grass roots" by nature. The process of selecting who is to represent the public should not be in the hands of the Legislature as it impairs the legitimacy of this process.

2. Public interest groups like political office seekers need the contact with their constituencies demanded by fund raising. After all, there exists a market for public representation and we do not need the government interfering in the communities choice over who should represent it and on what issues.

3. It is also unconscionable to offer financial support (tax revenue) to harbor public interest groups when the funding for more basic governmental services is in question.

B. A good idea. The Special Commission on Development of Boston Harbor should be given this task

E. What labor/management problems? What public spirited activities have been precluded? I am not saying that everything is perfect, but I am saying that the lack of specifics hinders the reports effectiveness and will lead to charges of shot gunning.

F. The section on the MDC and water quality bears serious and open discussion. The Special Commission's lack of serious examination of this area may need to be changed. I assume

Commissioner Geoghegan will see to it that this discussion occurs.

G2. Tax Assessment Practices

The author offers a rather sweeping change in the taxing structure without addressing some of the critical implications of the change. At first glance, I can see several very troubling results. I will mention only one.

The recommended change would put tremendous pressure on landowners to develop. The building boom or bulge that would result might not be in the public interest. New developments require expanded public services which, given Proposition 2-1/2, may not be fully funded by the amount of tax revenues which would be paid by these developments. The cost of these services would be borne by older properties and the residents of the city.

Certainly, landbanking or some sort of classification scheme could be used to counter this pressure.

However, my point is that the author has dealt with one of the most complex areas of public finance in a quick and light fashion. What is offered is an interesting idea but demands thorough study before it can be taken seriously. I would appreciate some substantive comments from the city and town members of the Special Commission on this idea.

G2. This point on zoning control of land use is well taken and has serious and far reaching implications into the future of our cities and towns. With limited land, we must use that land in as many ways and for as many hours a day as possible. Also our experience has been that costs for public safety (personal safety and property protection) diminish when an area is peopled beyond normal business hours.

Also, office or industrial workers gain a greater interest in and identify with their work places and the local area when they use the area for activities beyond the job.

While again, the author is writing briefly on a very complicated matter, we must recognize and act on the problem identified.

I. Water Transportation

Major public water transportation for people and the delivery of local goods is probably inevitable. With the increasing problems of funding roadways and public transit and increasing land-based congestion, the substantially lower infrastructure and operating costs of water-based systems is without question a preferred alternative. The Special Commission has a subcommittee working on this matter and a complete recommendation should be offered even if implementation is not immediate.

GENERAL COMMENTS

While the report identifies several areas and issues which need our attention, I find difficulty with the way in which it waves a somewhat ambiguous gesture at these concerns without pointing directly at them and clearly describing their origins or component parts. The recommendations which emerge are as a consequence ill defined and strategically unsupported. The report in this way invites all of the liabilities of criticism without offering the advantage of a path to success.

The author has made certain leaps from a limited rationale to a broad recommendation. I can not see the building blocks which persuade me about the conclusions or recommendations. In this way, the report can not stand alone but is possibly understandable only with a great deal of discussion with the author. Unfortunately, the project is ending and we will have only limited access to ongoing consultation.

I think that the Introduction and Recommendation sections could be effectively rewritten in a way which would be clearer and communicate more decisively, while not being overly long.

I have read but not dealt here with the other sections, leaving them to the experts or those specifically involved in those matters. I expect these sections to be well chewed before a legislative recommendation emerges from the Commission.

A final note:

The author could find advantage in stating that these problems of the Harbor are not the creation of the people who currently hold elective or appointive public office. To be sure, I and my constituents have many other problems with these officials. My point, however, is that the support of these officials will be much easier to enlist if they can be identified as part of the solution. In working with the Commission to date, the normally high level of resistance to change has not been prevalent. Everyone seems to know we have a series of Harbor problems and wishes to join in solving them.

Boston

Thomas Ennen, Director
Boston Harbor Development Commission
The State House
Boston, MA 02133

Dear Thom:

You have asked for my comments on the "Final Draft" Report of the Boston Harbor Management Project. It is my understanding that within a few days the "Final Final" report will be sent to the printer and that comments postponed may not be considered. For this reason I am sending you brief comments at this time. The remaining chapters on Ports and on Fort Point Channel have not yet been received so I am unable to comment on them.

The report gives the impression that the authors believe the grass is greener and the water bluer in other cities. Some of the efforts described as successful in other cities were really no more effective than what has been done here in Boston. Creative water pollution abatement programs by MDC and by Boston Water and Sewer Commission and the Magenta Zone invented by the BRA are examples of innovative and effective projects in Boston Harbor.

It seems extraordinary that in spite of many references to the value of Boston Harbor as a public resource, it is nowhere simply stated what kind of resource it is for whom and for what. Is it solely a development resource, its value measured by the dollar value of its real estate? What public interests are affected by development decisions, past, present and future? Access, whether visual, pedestrian, or marine merits discussion in depth, preferably with recommendations on at least one exemplary project where the problems of public access were resolved.

In a less philosophical vein, I refrain from comment on potential reorganization of the various entities of the Executive

Office of Environmental Affairs.

The specific recommendation that Chapter 91 permits issued by one of those entities, the Division of Waterways, be subsumed in some way into the Chapter 131/40 Order of Conditions issued by municipal conservation commissions is not a recommendation that the Special Legislative Commission on Boston Harbor should devote serious consideration to. Until recent years the Division of Waterways was a part of the Department of Public Works. Its historical mandate was appropriately "marine or commercial improvement...piers, highways, waterways, railroad connections and storage yards and sites for warehouses and commercial establishments" (Chapter 91/8) and "general care and supervision of the harbors and tidewaters of the commonwealth" (Chapter 91/10). While these activities have environmental consequences, it is the municipal conservation commissions which are mandated to consider "public and private water supply, protection of fish and shellfish, prevention of pollution and storm damage prevention." (Chapter 131/40). Overlap between conservation commissions and Waterways is insignificant. The recommendation is off the mark.

Rather than reducing the scope of environmental interests to be protected, it would be wise to ensure that full consideration of environmental impacts such as those under Chapter 131/40, be coordinated with the consideration of other interests. Recall that under the now defunct Chapter 310 (1972) irrevocable licenses were granted (in a limited geographical area) with consideration of recreation, historic preservation, scenic views, and most importantly, public access to the water and water's edge.

It should not be forgotten that this Legislative Commission was created "for the purpose of preparing a program for the "Economic, social and environmental development of Boston Harbor" (Chapter 25, Resolves of 1979). I hope the "Final Final" report will reflect the importance of a coordinated permit procedure encompassing expanded public interests and appropriate roles in the provision for those interests by municipal conservation and by the Commonwealth and its environmental secretariat.

Sincerely,

Eugenie Beal

COASTAL ZONE
MANAGEMENT

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

June 4, 1981

Dr. Judith Kildow
Department of Ocean Engineering
Massachusetts Institute of Technology
Cambridge, MA

Dear Dr. Kildow:

Thank you for this opportunity to comment on the Boston Harbor Management Draft Final Report. CZM staff have reviewed the report in depth and find several areas of potentially serious concern. I recognize the rather tight times constraints you are under with regard to publishing the Final Report in June, so we should meet as soon as possible to discuss the report in greater detail. Consistent with CZM input in the past, our comments are meant to assist the MIT team in producing a high quality report which will assist the Boston Harbor Development Commission in it's difficult work.

The major issues we raise in this letter relate directly to aspects of the CZM program as described in the report, although we have additional questions about the permitting section and several of the recommendations.

Federal Consistency

Specifically, the analysis of MCZM's federal consistency process is misleading. I direct your attention to page 38-40 of the M.I.T. Report where the statement is made that "the CZM office accomplishes their environmental review mandate by what is known as a 'federal consistency' review which involves the examination of any activities in the coastal zone which may have any effect on the area, i.e. N.P.D.E.S. permits, Outer Continental Shelf (OCS) leases, to verify their compliance with federal regulations."

In fact, the federal consistency review procedure is clearly defined in the CZM regulations (section 7.00 through 7.60). These regulations specify activities which may be subjected to federal consistency review: activities conducted or supported by a federal agency; activities for which a federal permit or license is required; activities described in OCS exploration, development or production plans; and activities subject to applications for federal assistance to state and local governments. Projects are chosen for review after careful consideration of standards of effect on the coastal zone and are tailored to each type of activity. For federal licenses or permits, the projects to be reviewed are further specified by MEPA thresholds.

The review procedure involves the analysis of the applicant's consistency certification. We determine if a particular action is consistent with CZM policies, which are in large part implemented through existing state regulations. This review does not involve an examination of any and all activities in the coastal zone and certainly does not attempt to verify compliance with federal regulations, as the report states.

CZM Networking Process

The networking process by which the MCZM program is implemented places very specific jurisdictional limits on us. The Coastal Wetlands, Waterways, and Water Pollution Control regulations, for example, limit CZM in the same way they limit the agencies which have primary jurisdiction. The main intent of federal consistency review is to allow states with approved management programs, such as Massachusetts, to review the prescribed federal activities using the standards provided in existing state regulations.

CZM and MEPA

On page 40 of the M.I.T. Report reference is made of the interrelationship between the MEPA office and the CZM office. CZM follows MEPA thresholds for projects requiring federal and state licenses. One of these MEPA thresholds involves projects of certain types subject to a Superceding Order of Conditions. If such a project is subject to an S.O.C., it is automatically subject to MEPA in the way specified in section 3(b)(1) of Appendix C of the MEPA regulations. If such a project has not been appealed and is therefore not subject to an S.O.C., it is still subject to federal consistency review as specified in section 7.23 (b) of the CZM regulations.

We recognize that many applicants unfamiliar with the regulatory process have difficulty communicating with all of the appropriate agencies and those agencies may have internal communication problems as well. Although it is the applicant's responsibility to initiate the federal consistency review process, we attempt to contact and inform applicants of federal consistency review procedures very early on in the process. The two most obvious times to identify applicants is when an ENF if filed with the MEPA office and when a Public Notice is published by the Corp. of Engineers for a project. In the latter instance, the Corp. of Engineers also notifies applicants of CZM federal consistency review procedures when they apply for a permit.

CZM and MEPA do work closely on projects in the coastal zone contrary to the impression the M.I.T. Report leaves the reader with. On relatively small projects (not requiring the preparation of an EIR), an applicant may opt for initiating the federal consistency review process during the MEPA review and our review will proceed. If a project requires the preparation of an EIR however, it may be premature for the applicant to initiate the federal consistency review process for two main reasons.

First of all, if the CZM federal consistency review begins simultaneously with the start of the MEPA review our six month review time will probably expire before the FEIR is completed. Under CZM regulations, we may not reach a federal consistency review decision until the final MEPA decision is available (section 7.25(c)). Other state regulatory agencies are bound by the principle that an adequate analysis of the impacts of the alternatives be conducted before reaching a decision. Secondly, both an EIR and an EIS present several project alternatives, from which a final project design is chosen. An applicant, therefore, may not be prepared to apply for the federal permits for a specific project until the EIR process leads to the selection of a chosen alternative. Since the federal consistency review process is based on a specific federal action such as the issuance of a permit or license, the process cannot be initiated until a specific project is chosen and the federal permits and licenses are applied for. This obviously allows for a speedier review based on the merits of the project by lessening delays caused by inadequate information.

It is unusual for us to delay a project beyond other state deadlines unless the project proponent initiates the federal action (which triggers our review) after completing the state permitting process. This can be a confusing process at first glance, but one that could have been clarified for the M.I.T. team through conversations with CZM staff throughout the study. It is unfortunate that the comment period will not afford the apparent need for lengthy discussion.

General Recommendations

Unfortunately the Draft Final Report raises more questions than it answers in regard to CZM. I refer to IIC. Specific Recommendations. Although there is no doubt that a strengthened CZM office is desirable, it is unclear how the office would be strengthened with the implementation of the recommendations. It is unclear how the permitting system could be shortened and what permits a Boston Harbor Authority CZM office would issue. Since we do not issue any permits presently, this should be clearly stated. It is also unclear whether there would be a specific set of standards for CZM in Boston Harbor that would differ from those in the rest of the state. Is the intent to have a Boston Harbor CZM operating as an arm of the proposed Harbor authority and the rest of the CZM office operating within EOEA? Would the entire CZM program be a part of the Harbor Authority?

There is an obvious dilemma here. On the one hand, if a Boston Harbor CZM was incorporated into the Harbor Authority and the other part of the program stayed within EOEA, the program would be fragmented, a problem the M.I.T. team cites throughout the report. In fact, this type of arrangement might lessen the level of predictability of the permitting process by having two sets of operating procedures and standards, not to mention two different directors. On the other hand, how would the entire CZM program rest within the jurisdiction of the Harbor Authority when the CZM mandate is statewide? The report should examine these questions in detail.

NERBC

New England
River Basins Commission

141 Milk Street, Third Floor
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Tel. 617-223-6244

July 7, 1981

Judith T. Kildow
Associate Professor of Ocean Policy
Room 5-215
Massachusetts Institute of Technology
Cambridge, MA 02139

Dear Professor Kildow:

Notice of your review session on Professor de Neufville's The Port of Boston: Status and Prospects was received too late for our attendance at the June 29 meeting. Our comments on the draft report are summarized below:

- There is no coverage of proprietary terminal operations or noncontainerized traffic in Boston Harbor. We thought this was an objective.
- While the absence of recent investment in Massport container facilities adds to capacity utilization, studies of Massport's container terminal indicate comparatively higher labor costs. How can operating efficiency be comparable to competition under these circumstances?
- What about the competitive impact on Boston of growing container feeder services?
  * two scheduled services in Providence with a container crane on order;
  * scheduled service in Portsmouth, New Hamphsire;
  * planned service in Albany, New York; and
  * proposed berth construction in Portland, Maine.
- Which current regulations on shipping cause container barge service to Boston? Further explanation is required.
- How are the 5-7% annual increases in container traffic in Boston derived and justified?

If you have any questions on our comments, please contact me.

Sincerely,

Robert H. Wardwell

Robert H. Wardwell
Program Manager
Ports and Harbors Program

RHW/nmc

August 10, 1981

Robert H. Wardwell
Program Manager
Ports and Harbors Program
New England River Basins Commission
141 Milk Street, Third Floor
Boston, MA 02109

Dear Mr. Wardwell,

While I am revising my report taking into account your and other suggestions, I diddwant to respond to your comments directly. Let me simply do this point by point:

1) With regard to the compatibility of Boston's high labor costs and efficiency: (a) We have to distinguish between technical efficiency - the ability to use resources well, and economic efficiency - the choice of the least expensive technically efficient possibilities. My comments refer primarily to technical efficiency. (b) Anyone should be extremely suspicious of studies of labor costs in U.S. ports. Which expenses are treated as labor costs, which labor costs are internalized, and which are treated above board, these are questions that are essentially impossible to resolve. The short of it is that I found no convincing reason to believe that Boston's real labor costs were really out of line with costs elsewhere. In particular, the New York waterfront is hardly an easy place to do business.

2) The effect of new facilities in Portland, Albany, etc.: If wishes were horses, beggars would ride. The grim fact is that neither the construction of docks nor the existence of service is sufficient to bring a commensurable amount of traffic; if they were, Boston would have 3 to 5 times the traffic it does. The reluctance of shippers to route cargo through secondary ports - such as Boston - is redoubled for tertiary ports - such as Portland or Albany. My opinion is that Boston has nothing significant to worry about in this direction.

3) The conference agreements fixing prices between ports (rather than inland destinations) create the current demand for barge service. If these artificial constraints were eliminated, as by the government withdrawing its permission for U.S. companies to participate in the shipping cartels, it is almost certain that barge traffic would evaporate. This point is now explained more fully in the report.

4) No one can forecast the future container cargo throughf Boston or any other port accurately. Projections that have been made - as by Temple, Barber and Sloan - are necessarily deficient on two important grounds. First, any trend extrapolation is highly dependent on the period selected for econometric analysis, due to the high variability in the data; the equation estimated is highly unstable. Second, cargo forecasts depend critically upon assumptions about trade, oil prices, and other significant unknowns. The net result is that these forecasts - however embellished by fancy equations - are nothing more than projections of one's guesses about economic trends. One might as well guess directly. My entry - at some $100,000 or more less expensive than TBS' - is equally likely to be right.

With all best regards,

Sincerely yours,

Richard de Neufville
Professor and Chairman

cc. Prof. J.T. Kildew

ANTHONY D. CORTESE, Sc. D.
Commissioner

The Commonwealth of Massachusetts

Executive Office of Environmental Affairs
Department of Environmental Quality Engineering
1 - 11 Winter Street, Boston 02110

June 16, 1981

Dr. Judith Kildow
Massachusetts Institute of
Technology
Ocean Engineering Department
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Cambridge, MA 02139

Dear Dr. Kildow:

Attached is a copy of the Characteristics of the Decision-Making Structure and Changes Underway Sections of the Boston Harbor Management Draft Final Report with some suggested rewriting, deletions and comments in the margin. As you can see from the comments I have some serious and significant disagreements with certain portions of the report.

First of all, I feel the tone of the report concerning the Characteristics of the Decision-Making Structure Section is very negative and for the most part unsubstantiated. Where this is the case I have noted such in the margin.

Secondly, portions of the Report do not accurately represent the way business is presently conducted within EOEA or DEQE. One example of this is the lack of understanding of the function of the Water Resources Commission which is a policy making body with broad representation including both agency and public officials and co-chaired by the Commissioner of DEM and Commissioner of DEQE. Also within EOEA there is a staff person assigned to deal with water policy issues and inter-program activities within EOEA. These two examples certainly provide some of the "linkages" which your report claims are necessary and which your Report states presently do not exist.

My third concern is that in developing the two sections of the Report which these comments are addressing, sufficient research was not performed to understand and credit some of the ongoing coordination and integration efforts dealing with regulatory programs in general and Boston Harbor in particular. In the FY - 81 State/Environmental Protection Agency Agreement (SEA), which you stated you had of copy of at our June 9, 1981 meeting, there are at least three issues which have some impact on the issues you raised in your Report. First, there is an issue in the SEA, the purpose of which is to bring responsible State and Federal Agencies together to better understand and manage dredging and disposal projects. Second, the Energy Issue in the SEA will develop a permitting guideline for the purpose of consolidating the administrative requirements and review procedures for local, State and Federal permits for

new sources. This guideline could be applied to all sources, including those in Boston Harbor. The third issue in the SEA which provides better management of projects in Boston Harbor is the Boston Harbor Issue. This issue allows the public and all appropriate agencies to review and impact on decisions relating to the cleanup of water quality in Boston Harbor.

In your Report, you criticize EOEA for not having a facilitator for issuing permits and licenses in Boston Harbor. Even though this is true, if you totally understood the responsibilities of EOEA and its agencies, you would realize that this is not a proper role for the Agency to assume. However, I do submit that EOEA and its agencies are effectively managing its programs by providing good linkages which assure program integration and coordination as I have described above.

In order for development in Boston Harbor to be properly managed in a timely fashion, it may be necessary to establish an authority of some sort to act as a facilitator. If this were done this entity could assist developers in understanding the regulatory processes and to promote the concurrent review of projects by involved agencies.

I request that you carefully review this letter and attached comments and make the appropriate changes to your Report so that it will represent an accurate evaluation of the programs within this Department. If you have any questions, please do not hesitate to contact me at 727-2690.

Sincerely,

David A. Fierra

David A. Fierra
Deputy Commissioner

DAF/lm

cc: Thomas Ennen
Gary Clayton, CZM

TO: Prof. Judith Kildow, MIT
FROM: Dean Johnson, TBHA
DATE: June 8, 1981
SUBJ: Proceedings of May 14, 1981 workshop on Management Alternatives for Boston Harbor

The attached report summarizes the discussions of each of the six groups. Unfortunately, I have not received all of the notes from the discussion leaders or reporters. In the case of Group 4, I have to wait until the reporter returns from California in mid-June. I also do not have complete records of all the participants in each group. I am in the process of calling members of various groups to reconstruct the full membership.

These notes represent a draft of the comments I received and notes that I took. I forward them to you for your use in revising the report, although there were few comments specifically on the draft. Rather, each group used the draft as a starting point for their discussion, as we had suggested. I am going to summarize these further as part of a more coherent "summary of proceedings" which will be sent to every participant.

I am also attaching the list of participants, which is reasonably complete.

You should know that I have received many positive comments from people who participated in the workshop and were stimulated and excited by it. I am very pleased with the response and hope to set up another discussion session in the near future, perhaps in cooperation with the Chamber or other groups. I will keep you posted on our plans.

ATTENDENCE AT THE BOSTON HARBOR ASSOCIATES WORKSHOP - MAY 14, 1981

Meg Ackerman, TBHA
Kathy Abbott, D.E.M.
Claire Adams, Army Corps of Engineers
Robert Adler, Army Corps of Engineers
Charles Ames, Hill & Barlow
Laura Anderson, N.E. Merchants
Simone Auster, Boston Chamber of Commerce
Ann Aylward, Massport
Martha Bailey, BRA
Dudley Baker, NERBC
Edward Baumgartner, Harbor Commission, Hingham
Eugenie Beal, Harbor Commission, City of Boston
Richard Bennink, Fund for Preservation of Wildlife
Arthur Blackett, Commercial Wharf Properties
Joseph Boudreau, TBHA, Hull
Alice Boelter, Massport
Charles Button, Harbor Commission, Boston Water & Sewer
Tom Callaghan, Commission member
Helen Callahan, John Ordway & Assoc.
Steven Cassella, M.I.T
Curtis Chase, J.F.K. School of Gov.
Gary Clayton, CZM
Donald Connors, Choate, Hall & Stewart

Richard Delaney, CZM
Lorraine Downey, Neighborhood Development, Boston

Thomas Ennen, Harbor Commission

John Felix, DEQE
David Fierra, Harbor Commission, DEQE
Alan Fisher, G.L. Wry Consulting Engineers

Terrence Geoghegan, Harbor Commission, MDC
William Gillitt, Architect
Michael Glavin, Harbor Commission, Chelsea

Beth Harding, M.I.T Sea Grant
Kathy Hoard, M.I.T
Dean Horn, M.I.T Sea Grant
Paul Horn, EDIC
Susan Houston, Cabot, Cabot & Forbes

Dean Johnson, TBHA
Rush Kidder, Christian Science Monitor
Jay Kaufman, M.I.T Sea Grant
Judith Kildow, M.I.T
Peter King, P.S. King & Assoc.
Peter Koval, O'Brien & Gere
Ernesta Kracka, Exec. Off. of Communities & Dev.

Francis Lee, Boston Edison
Maggie Livsky, M.I.T
William Lydon, Harbor Commission, Massport
Stepehn Lynch, Codman & Company

John McHugh, New England Telephone
Phillip Mallard, DEQE
Anne Meyers, Massport
Neil Middleton, Jung-Brannan Assoc.
William Mitchell, Boston Pilots
Theo Moniz, U.S. Coast Guard

Julia O'Brian, MDC
Margery O'Malley, CZM
Henry O'Connell, Harbor Commission, Winthrop
Marc Older, BRA
Meyer Orlov, Fox, Cowin & Orlov
Kenneth Owens, John Hancock

Howard Palmer, Attorney General's Office
Barbara Passero, Coastal Environment Info. Svc.
Leon Popel, Marine Engineer
Michael Potter, Citicorp Real Estate
Beth Powers, NERBC

Deborah Ross, TBHA, Water Music, Inc.
Deborah Rosser, Charlestown Savings Bank
Barbara Steen-Elton, MIT
Mary Lu Shoemaker, Harbor Commission, Bay State Boat Owners
Michael Shooltz, Cabot, Cabot & Forbes
Duncan Smith, Museum Wharf
Lester Sutton, EPA
Robert Swett, Boston Properties

Rick Taylor, Boston
Edwin Tiffany, Turner Fisheries
Stella Trafford, TBHA

Marian Ullman, TBHA

William Walters, TBHA
Thomas Walsh, Codman & Company
Robert Wardwell, NERBC
Robert Weiner, Boston State College
Nathaniel Wentworth, Fay, Spoffard & Thorndike
Nina Winiker, B.S. Costello

Robert Yaro, DEM

Carol Ann Zeimer, Exec. Off. of Transportation & Construction
Dirk Zwart, Army Corps of Engineers

GROUP 1 WATERFRONT LAND USE CRITERIA

Participants: Ann Aylward (Massport), Disucssion Leader
Martha Bailey (BRA)
Theo Moniz (U.S.C.G.)
Howard Palmer (Asst. Attorney General)

Question: How do we resolve the conflicts between water dependence and the public interest on the one hand and highest and best use assumptions of the current system on the other?

1. Current actors:

-Massport
-CZM
-Boston Conservation Commission
-Div. of Waterways (Chapter 91)

There is no central authority for resolution of conflict; and no specific group/agency looking out for the public interest. Although the Division of Waterways has broad jurisidiction, it has no focus on Boston Harbor; its licenses are too broad in scope and the agency is limited by understaffing.

2. What is needed:

- coordination of the permitting process, overall land use development, zoning, etc. under one authority -- an agency or entity to do a Master Plan for the harbor.
- checks and balances
the Legislature is responsible for protecting the public trust
- possibly some sort of declaratory procedure with Superior Court to streamline the permitting process
- environmental policy for the harbor as part of the general plan, including zoning procedures

3. Issues regarding a land use control agency:

- cannot let any municipality control the harbor when the waterfront is in the public trust and should be protected by the state
- need for community involvement in comprehensive planning
- communities should be allowed to supersede a master plan to enforce stricter regulations than threshold requirements of the plan, but how to define what is more restrictive?
- lessons of current experience - different levels of sophistication in various communities in response to CZM principles; CZM has "no teeth" to enforce its mandate thus no one oversees the entire development problem; CZM has not performed well in Boston Harbor because of the complexities of agencies.

Group 1, cont.

- given current experience need an agency with POWER, obtained through legislature's support

4. Role of a central harbor authority and tasks

- proposed authority would have ultimate authority over project approvals - possible veto of that approval by local gov't?
- threshold criteria should be developed which are responsive to historic trends of development; recognize that use change over time
- uses are quantifiable; define their needs and incorporate into a master plan
- financial return not necessarily the proper determinant for defining best use; water dependence (e.g., Bethlehem Steel) and public use (recreation, etc.) need to be structured into criteria which govern private development.

  Focal Point: the legislature will establish these criteria with or without local approval because of the Quirico decision which establishes the public trust for the people of the state. Quirico also sets limits on the powers of the Legislature.

5. Structure of a Commission

- local communities contiguous to Boston Harbor should be represented
- water dependent activities must be represented
- public agencies should be represented so that the membership reflects statewide interests in the harbor; thus, membership should be broader than the existing Special Commission.

GROUP 2 EQUITY PROBLEMS

Participants: Dean Johnson (TBHA), discussion leader
Richard Bennink (Fund for Preservation of Wildlife)
Arthur Blackett (Commercial Wharf Properties)
Donald Connors (Choate, Hall & Stewart)
Jay Kaufman (MIT Sea Grant)
Phillip Mallard (DEQE)
Anne Meyers (Massport)
Neil Middleton (June-Brannan Assoc.)
Kenneth Owens (John Hancock)
Deborah Rosser (Charlestown Savings Bank)
Thomas Walsh (Codman & Co.)
Nat Wentworth (Fay, Spofford & Thorndike)

Question: The harbor as a public resource has special public interest conditions based in law which may conflict with the rights and concerns of private and governmental land owners. How should this conflict be resolved?

1. Issues
   - the Quirico decision (implications discussed)
   - needs of investors
   - needs of conveyancers and owners (certainty)

2. Major points raised
   - the harbor is a dynamic place; uses and needs change and evolve over time
   - we need to identify via a sophisticated urban design analysis the public interest in the harbor and the water's edge. Such analysis should create a positive array of possibilities (including ideas such as shared access) rather than a rigid set.
   - we need development to be able to serve the public interest
   - toughest question is "Who pays?" (this was not addressed in the MIT report)
   - a proper incentive package needs to be developed which promotes private development that is consistent with the public interest
   - as an equity matter, public landowners may have an obligation to the private owners to make clear their plans and intentions

3. Structure of a Harbor Authority to carry out above:
   - could not decide; the problem is "too political"

4. Additional comments
   - need clarification on what kind of title or license required to allow mortgage capital to be raised in areas below the historic low water line
   - Boston not such a bad place in which to develop; faster than many cities
   - MIT report tone too defenseive, almost antagonistic; focus on new opportunities needed

GROUP 3 CONSTRAINTS ON DEVELOPMENT

Participants: Simone Auster (Boston Chamber), disucssion leader
Marjorie O'Malley (CZM), reporter
Rober Adler (Army Corps of Engineers)
Eugenie Beal (Environmental Affairs, Boston; Commission)
Alice Boelter (Massport)
Charles Button (Boston Water & Sewer)
John Felix (DEQE)
Paul Horn (EDIC)
Susan Houston (C,C & F)
Marc Older (BRA)
Barbara Steen-Elton (MIT Sea Grant)
Michael Shooltz (C,C & F)
Duncan Smith (Museum Wharf)
Carol Ann Zeimer (EOTC)

Question: The governance system for the Harbor often retards and obstructs development and therefore delays or reduces public benefits which could accrue. At worst tremendous opportunities are lost. How can we more effectively and efficiently support development while at the same time guaranteeing proper protection of the public and environmental interests?

1. Discussion of Question

There was some disagreement on the types of constaints to development and the role of the governance system. The point was made that the problem is not in regulations but in the lack of shared interests. By and large the regulatory process does what it is intended to do, although one agency representative asserted that each agency sets its own priorities, information requirements (for permits) and layers of regulations, creating a negative atmosphere for development. A major problem for developers in understanding the regulatory process though efforts are being made to assist them (example of development guide put out by EDIC and the Boston Chamber of Commerce.)

2. Major problems:

- there is a general lack of water orientation among the various agencies at different levels of government
- cost of testing and inconsistent data requirements; length of time and cost of permitting process are hinderances
- recreation, public access and aesthetics are not considered in a systematic way
- the orientation of water-based users and land-based users differ; the former are threatened by the latter.
- there is a lack of consensus on what are appropriate uses and what is in the best public interest
- lack of shared goals for growth and development throughout the harbor

Group 3, cont.

3. Waterfront development cost factors:
   - land costs
   - labor costs
   - construction costs (floating cranes, barging, etc.)
   - filling, rip rap, etc.
   - bulkheading
   - inspection
   - many of the factors which increase waterfront development costs are inherent in the site requirements rather than a result of government interference, etc.

4. Needs
   - systematic public access
   - a rational process conducted by reasonable people that allows for people to be heard yet protects broad public interest
   - coordinated planning and goal-setting for entire harbor to realize growth potential
   - coordination of governmental activities to rationalize the permitting process, remove overlapping and make needed regulation more efficient

GROUP 4 INSTITUIONAL CONSTRAINTS ON CHANGE

Participants: Lorraine Downey (N.D.A., Boston), disucssion leader
Curtis Chase (TBHA), reporter
Kathy Abbott (DEM)
Dudley Baker (NERBC)
Gary Clayton (CZM)
David Fierra (DEQE, Commission)
Ernesta Kracka (EOCD)
Frank Lee (Boston Edison)

Question: Changes in government in the Commonwealth have historically taken the form of additional laws and bureaucratic layers which complicate and confuse the process. Is this approach necessary and can it be overcome in developing a new mechanism for the management of Boston Harbor?

1. Conclusion

   An additional layer of government to deal with the harbor is not politically feasible. Yet there is a clear need for a central authority to deal with harbor issues.

2. Functions of an ideal entitiy:

   - coordination
   - facilitation
   - establish time frames and procedures for permitting

3. Need for better information on:

   - is the regulatory process itself a significant constraint or is the problem in the complexity of the issues?
   - are there large tracts on underutilized public land in the harbor?
   - is there adequate access for water dependent uses? Any evidence that such uses have been or are being denied?

(notes for this group not turned in yet; reporter out of town)

GROUP 5 COMMUNICATION AND INFORMATION NETWORK INADEQUACIES

Participants: Beth Powers (NERBC), disucssion leader
Laura Anderson (New England Merchants Bank)
Ed Baumgartner (Hingham, Harbor Commission)
Tom Callaghan (Harbor Commission)
Peter King (P.S. King & Assoc.)
Peter Koval (O'Brien & Gere)
William Mitchell (Boston Pilots)
Barbara Passero (Coastal Enivronment Info. Serice)
Mary Lu Shoemaker (Bay State Boat Owners, Commission)
Marian Ullman (TBHA)

Question: Harbor constituency building and mobilization has been stalled at a realtively primitive stage of development in Boston Harbor. Other harbor regions have overcome this problem. How can we?

1. Agreement on the question.

2. Reasons for the inadequacies in Boston Harbor
   - waterfront not visible from most of city, as in San Francisco
   - waterfront blocked by highways and degraded by dilapidated structures, debris, etc.
   - Commercial interests "owned" the harbor; they resent intrusion by other groups (tourists, boaters, etc.) which interfere with their operations; thus no interest in TBHA, other harbor-wide activities and groups
   - there is no crisis to galvanize the interests and no 'grand vision' of the harbor; therefore little or no media attention
   - private waterfront property owners not interested in increased public activities because of the lack of a true sense of the public trust (versus the west coast experience)
   - there is a fragmentation of public information dissemination and a lack of promotion by key actors (ex. of the commuter ferry which was not advertised adequately by the state)
   - there is not direct relationship between residents, commuters and harbor in Boston (although outlying community residents do relate to their part of the harbor)
   - government agencies at all levels do not have a unified focus or vision of Boston Harbor, even within the same departments
   - there is no unified power for mobilizing the business community when promotion needed; a networking of power brokers is needed yet there is no direct return to them for publicizing

3. How to stimulate, improve communication & information network inadequacies:
   - the group agrees with and supports the recommendations of the MIT report but suggests in addition the following:
   - need to target strategies to specific constituencies -
     - waterfront marine commercial interests
     - other waterfront proprietary interests

- city residents
- commuters
- business community

(the problem of harbor visibility not so great in outlying areas)

- need to establish a central clearinghouse for public information dissemination to and from other groups, media, etc.
- need to establish a direct relationship between the harbor and the target constituencies
- need to find money to support these communications efforts

4. Some specific recommendations:

- to establish a better relationship among marine commercial interests on the waterfront, the group suggests that the Special Commission call together a forum for just these interests to identify common gripes, problems, hopes and desires for the harbor for the next five years or so; this would be a means of including them and insuring that their concerns are included in solutions. Massport could be asked to sponsor a social occasion, perhaps.
- to establish a clearinghouse. TBHA could serve this function but needs funding; as information clearinghouse and media/government liaison, it could provide information to Greater Boston Tourist & Convention Bureau, newspapers, TV, etc.
- to improve business community involvement and to increase funds for promoting the harbor:
  - establish a business media network, as in Baltimore, that can be drawn on to promote harbor when needed; such a network needs a key motivator who has respect of the community, time, contacts, etc.
  - approach corporations, especially the banks and others whose advertising links them with New England's marine heritage, for public service and funding
  - to get property owners interested, there must be a clarification of the public trust and other inducements to show them it is in their interest to promote the harbor as a public resource, question of how to do this; legislative mandate needed but also time and money to get it passed
  - programs in the schools can educate Boston Harbor users and decision-makers about the future
  - need a crisis but Proposition 2½ may be biggest deterent to increasing public/private interests in Boston Harbor at this time.

GROUP 6 BUILDING BLOCKS TOWARD EFFECTIVE HARBOR MANAGEMENT

Participants: Edwin Tiffany (Turner Fisheries), discussion leader
Claire Adams (Army Corps of Engineers)
Joseph Boudreau (TBHA, Hull Redevelopment Auth)
Rich Delaney (CZM)
Terrence Geoghegan (MDC, Commission)
Rush Kidder (Christian Science Monitor)
John McHugh (New England Telephone)
Julia O'Brien (MDC)
Stella Trafford (TBHA)
Robert Yaro (DEM)
Dirk Zwart (Army Corps of Engineers)

Question: What are the guidelines or elements for a solution? Who is part and necessary participant of the solution? What is the formula for a process to surface the best and most viable solution?

1. General points

There appears to be a need for one central, probably non-profit group to speak for all interests; TBHA was suggested as a candidate; however doing so is very difficult since interests in and around the harbor are so varied. Yet such an approach is needed to help focus limited funding in the public sector.

As to the type of central agency or authority to coordinate management of the harbor, there was little agreement; there appears to be little desire on the part of existing agencies and officials to surrender any power. There is also a strong feeling against adding another layer of bureaucracy.

(notes for this group were not submitted; still tracking down participants)