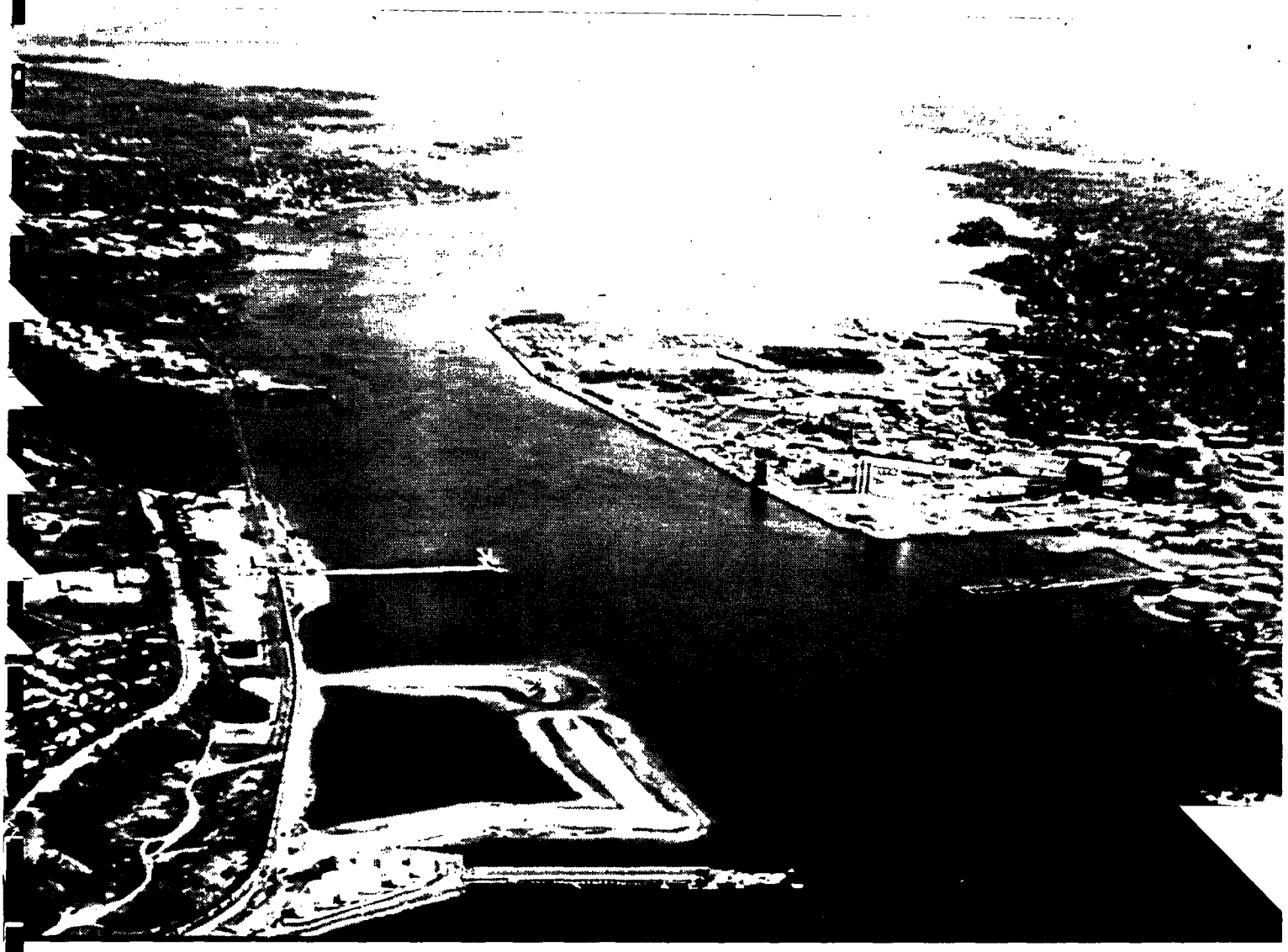
CZIC



PROVIDENCE HARBOR

A Special Area Management Plan

ASTAL RESOURCES
NAGEMENT COUNCIL

TC
225
.P76
P76
1983

We would like to give a special acknowledgment to the contribution of Alvaro Freda, vice-chairman of the Coastal Resources Management Council, who passed away on February 1, 1983. He actively participated in the HELP Committee and its subcommittees and was a constant source of encouragement and support to the staff of the Coastal Resources Center as it developed the materials utilized in drafting this plan. His contributions were greatly appreciated and his participation will be missed.

DRAFT

R Isle Island - Coastal Zone Management Program
TC225.P76 P76 1983

Acknowledgments

The Providence Harbor Special Area Plan is an outcome of the Rhode Island Coastal Resources Management Program's continuing commitment to the problems of the urban waterfront surrounding the Seekonk and Providence Rivers and Upper Narragansett Bay.

The Urban Waterfronts and Dredging Subcommittee of the CRMC Planning and Policy Committee directed the preparation of this plan. Its members included:

Paul Hicks, Chairman
Carolyn Brassil
Alvaro Freda
John Lyons
Capt. John Neary
Senator Gardner Seveney
Samuel Snow

The CRMC was assisted in preparing the Special Area Plan by its Harbor Estuary and Land Planning Advisory Committee, whose members included:

Wynn Aldrich	Commodor , R.I. Yacht Club
James Beattie	Chief, Division of Coastal Resources, Dept. of Environmental Management
Victor Bell	Department of Environmental Management
Lawrence Carrera	PM Industries
Michael Everett	Rhode Island School of Design
Donald Fowler	Providence Chamber of Commerce
Senator Leo Gannon	Pawtucket
Robert H.I. Goddard	Providence
Eric Jankel	Executive Director, Narragansett Bay Water Quality Management District Commission
Christopher Little	Save The Bay
John Loeber	Fleet National Bank
Arthur Markos	Department of Economic Development
Leo McAloon	Governor's Office of Coastal Zone Management
Lee Pare	Lee Pare and Associates

US Department of Commerce
NOAA Coastal Services Center Library
2234 South Hobson Avenue
Charleston, SC 29405-2413

William Parent	Parent's Marina
Eugene Neary	Director, Port of Providence
Beatrice Rosenstein	Providence
Joseph Savick	East Providence Planning Department
Fred Vincent	Cranston Planning Department
Prof. William Wyatt	Brown University

The Coastal Resources Center at the Graduate School of Oceanography of the University of Rhode Island drafted and produced the Special Area Plan and its many supporting documents (listed in the Appendix). It provided continuing support throughout the planning process. Its contributing staff members were:

Donald D. Robadue, Jr.	Project Coordinator and Principal Author
Ellen Deason	Marine Resources Specialist
Robert McKillop	Graduate Research Assistant
Ellen Suchow Forman	Marine Resources Specialist
Stephen B. Olsen	Director, Coastal Resources Center

All illustrations were prepared by the principal author. Word processing was done by Debi Clarke and Jean Krul.

The preparation of this plan was financed in part by a grant from the National Oceanic and Atmospheric Administration under the provisions of the Coastal Zone Management Act of 1972, (Public Law 92-853).

Contents

April 14, 1983

Page

I. COASTAL RESOURCE MANAGEMENT GOALS FOR PROVIDENCE HARBOR

1. Providence Harbor: A Special Area of Concern to Rhode Island . I-1
2. Coastal Management Goals for Providence Harbor. I-2

II. SHORELINE USE IN PROVIDENCE HARBOR

1. Introduction. II-1
2. Summary II-2
3. Existing Condition of the Providence Harbor Shore II-3
4. Proposals for Harbor Redevelopment II-5
5. Goals for Shoreline Use in Providence Harbor. II-11
6. Policies and Regulations for Shoreline Use in Providence Harbor... . . . . II-12
   - 6.1 Shoreline debris II-13
   - 6.2 Vacant and abandoned property II-16
   - 6.3 Outdoor recreation II-21
   - 6.4 Mixed use redevelopment proposals II-27

III. PORT INDUSTRY DEVELOPMENT

1. Introduction III-1
2. The Physical Development of Providence Harbor III-2
   - 2.1 Boundaries of the port district III-2
   - 2.2 Existing port facilities III-3
   - 2.3 Dredging needs III-4
   - 2.4 Areas for expansion III-5
   - 2.5 Policy on Providence Harbor line III-5
   - 2.6 Policies on port expansion in Providence Harbor III-6
3. Port Planning and Management. III-11
   - 3.1 Problems facing the port industry III-11
   - 3.2 Recommendations III-14

IV. IMPROVING WATER QUALITY IN PROVIDENCE HARBOR AND UPPER NARRAGANSETT BAY

1. Introduction IV-1
2. An Approach to Pollution Abatement in Providence Harbor IV-2
3. Proposed Changes in the Federal Pollution Control Program . . . IV-3
4. The Development of Water Quality Standards for Providence Harbor. IV-8
   - 4.1 Participation in the pollution abatement planning process. IV-9
   - 4.2 Information requirements for pollution abatement planning IV-10

V. ACHIEVING REVITALIZATION GOALS FOR PROVIDENCE HARBOR

1. Introduction V-1

Page

2. The Organizational Framework for Implementing the Special Area Plan V-3
   2.1 Permanent Subcommittee on Urban Ports and Harbors review of permit applications V-3
   2.2 Permanent Subcommittee implementation of non-regulatory policies. V-4
   2.3 Public advisory committee. V-4
   2.4 Staff support. V-5
3. Coordination and Consultation with Government V-5
   3.1 State agencies V-5
   3.2 Municipal agencies V-5
   3.3 Federal government V-6

Figures

I Providence Harbor

II-1 Providence Harbor General Shoreline Use

II-2 A Compilation of Proposals and Use of the Providence Harbor Shore

II-3 Providence Harbor Areas of Concern

II-4 Possible Locations for a First Class Boat Launch Ramp

III-1 Boundaries of the Port District in Providence Harbor

III-2 Change to the Providence Harbor Line

III-3 Potential Areas for Port Expansion

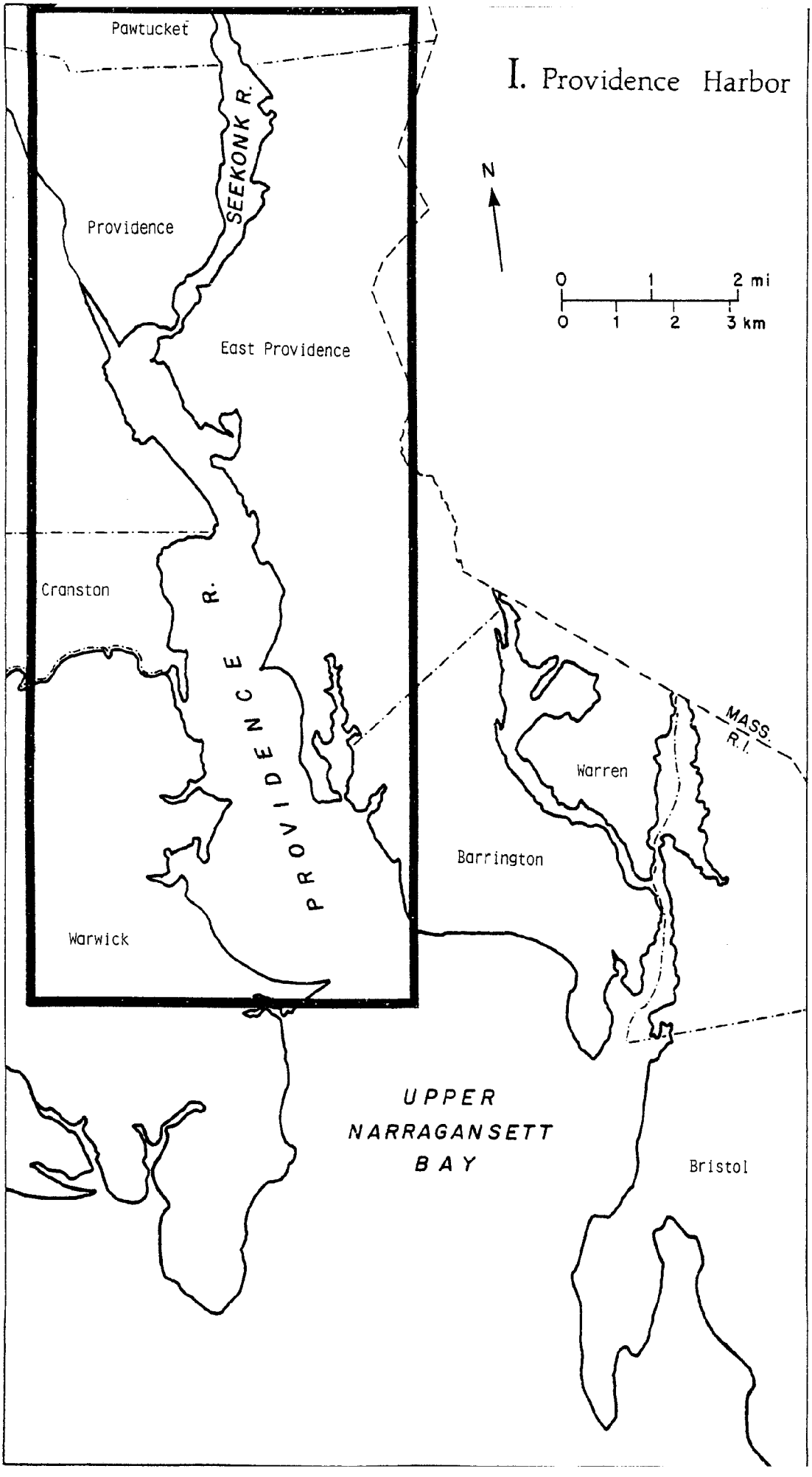
I.
goals

I. Coastal Resource Management Goals for Providence Harbor

1. PROVIDENCE HARBOR: A SPECIAL AREA OF CONCERN TO RHODE ISLAND

Providence Harbor is the state's largest urban waterfront, reaching from Sabin Point and the Pawtuxet River northward to the falls at the head of the Seekonk River (Figure I). It is located in the heart of the Providence metropolitan area, at the confluence of the major rivers and streams which drain a 2160 km^2 basin inhabited by one million people. The Seekonk and Providence Rivers, which are completely tidal, deliver both freshwater and pollutants associated with human activity and natural processes in the drainage basin directly to Upper Narragansett Bay, which is part of one of the most important estuaries in the United States. Industrialization and urban development have caused significant changes to Providence Harbor as an ecosystem, and as a place for Rhode Islanders to live and work. Providence Harbor is presently in transition as a place of importance to our economy and quality of life. Many problems persist as a consequence of the gradual weakening of the strength and vitality of the Providence metropolitan area, while new opportunities are appearing as public ownership of shorefront land has increased and a massive effort to control water pollution begins.

The Rhode Island Coastal Resources Management Council (CRMC) is the state's primary agency for planning and management in the coastal zone. The Coastal Resources Management Program Document, a set of findings and policies adopted in 1977, outlines the CRMC's role in finding solutions to port and urban waterfront problems. Beginning in 1979, the CRMC directed the Coastal Resources Center to prepare detailed information


I. Providence Harbor
N
0 1 2 mi
0 1 2 3 km
Pawtucket
SEEKONK R.
Providence
East Providence
Cranston
PROVIDENCE R.
Warwick
MASS.
R.I.
Warren
Barrington
UPPER NARRAGANSETT BAY
Bristol

first on the coastal issues of the Upper Narragansett Bay region as a whole, and then more specifically the problems of Providence Harbor. The CRMC created an Urban Waterfronts and Dredging Subcommittee in 1980 to consider the information and analyses as they were being prepared by the Coastal Resources Center. In January 1982, the Urban Waterfronts Subcommittee established the Harbor Estuary and Land Planning Advisory (HELP) Committee to obtain assistance in developing specific proposals and recommendations to be presented in the form of a Special Area Plan for Providence Harbor.

2. COASTAL MANAGEMENT GOALS FOR PROVIDENCE HARBOR

The Coastal Resources Management Council's policies and proposals for Providence Harbor are designed to achieve five major goals.

2.1 Balanced and compatible shoreline use

The CRMC believes that greater use can be made of the land and water in Providence Harbor for both public and private benefit. In order to achieve these benefits, redevelopment must take place. The Coastal Resources Management Council desires to encourage good site development proposals by providing assurances that Harbor-wide redevelopment will proceed in a coordinated fashion and that conflicts are resolved in favor of maintaining a balance among port, recreation, commercial and residential uses. The juxtaposition of different human activities and natural features along the shore is one of the unique attributes of the urbanized coast which must be protected.

2.2 Improved water quality

The CRMC seeks to assure that the quality of estuarine waters will be adequate for shoreline and in-water uses and the living resources of Providence Harbor and Upper Narragansett Bay. Sound decisions about water pollution abatement regulation and expenditures require a careful

weighing of benefits to the estuary's users with the costs to the public and private sectors. The designation of geographic goals for human use and marine habitat must be accompanied by the establishment of specific criteria for maintaining those conditions, followed by an assessment of the discharges which contribute to violations of the allowable levels of pollution. Regulatory and pollution abatement programs should be based on achieving those target levels of reduction. Careful environmental monitoring then becomes meaningful in terms of checking on Rhode Island's progress toward meeting its clean water goals. Continuing estuarine research is necessary to develop better water quality criteria, improve our understanding of how pollutants behave in the estuary and document the relative importance of human and natural sources of pollution. In addition to establishing use goals, the CRMC will cooperate with the ongoing efforts of the state pollution control agencies, publicly owned treatment works, private dischargers, and the research community to grapple with the many-faceted challenge of improving the quality of water in Providence Harbor and Upper Narragansett Bay.

2.3 Port development

The CRMC desires that the physical development of Providence Harbor contribute to a vigorous, healthy port industry. Port industry activity is an important and necessary economic use of the state's coastal waters and shore. Unfortunately, the absence of a long-term plan for port industry development which identifies facility construction and dredging needs makes the task of evaluating the merits of specific proposals very difficult.

The construction and maintenance of port facilities as a result of growth and development in the port industry presents the CRMC with one

of the major sources of large physical disruption and change to the shore and marine environment. Underutilized or abandoned facilities contribute to the shoreline debris problem and preclude other productive, marine dependent uses from access to tidal waters and dredged channels. Maintenance and development dredging of berths and channels is necessary for sustaining the economic viability of port facilities but requires the disposal of sediment which is sometimes polluted. Many options exist for dredged material disposal, including open water sites, such as Brenton Reef, where polluted sediment from the Providence River was covered by clean material; construction of marsh habitat; shore and onsite disposal and landfilling. Careful selection and utilization of a disposal option is essential to reduce the risk of causing adverse effects on the marine ecosystem.

New proposals to fill tidal waters or alter the shore for port development must truly provide a flow of economic benefits to the public as compensation for unavoidable environmental damage and lost waterfront use opportunities. A weak, disorganized port industry will not be able to provide these economic benefits. In order to plan for necessary physical development, action must be taken by state and municipal agencies to resolve other port problems through a coordinated port planning and management effort.

2.4 Increased recreational opportunities and public access

The CRMC recognizes that Providence Harbor and Upper Narragansett Bay comprise the largest expanse of open space in proximity to residents of the Providence metropolitan area. At the beginning of the century, this part of Rhode Island's coast was actively enjoyed by recreational boaters. Excursion boats stopped at shore dinner halls and amusement parks, summer homes dotted the Upper Bay and Harbor shore and open land

was used as campgrounds. While some of these uses may never return, many opportunities exist for increasing the passive and active recreational value of the Harbor's shore and waters. The CRMC will actively encourage the development of access points as well as suitable private and public facilities including marinas, launching ramps and linear parks as part of a balanced Providence Harbor redevelopment program.

2.5 Coordination and consultation

An essential ingredient in achieving a successful balance among new and old uses of the Harbor is the maintenance of a rich, multilayered process of communication and personal interaction among those involved in developing, using, enjoying, regulating, and managing the urban waterfront. In order to assure that public and private decisions and actions affecting Providence Harbor meet coastal management goals and policies as stated in this special area plan, the CRMC will provide a variety of forums for the review and discussion of important issues and problems facing Providence Harbor, in addition to its decision-making role on individual permit applications, through the creation of a permanent subcommittee on Urban Ports and Harbors.

II. shoreline use

II. Shoreline Use in Providence Harbor

1. INTRODUCTION

Cities throughout the nation are struggling to reclaim the use of their problem-ridden, worn out working waterfronts. Attractive, livable, commercially viable waterfront districts are now emerging in older cities, the result in most cases of decades of planning, redevelopment actions and millions of dollars in public and private investment. Boston's Quincy Marketplace, Newport Harbor, R.I., and Baltimore's Harborplace are among the locations on the Atlantic coast now receiving national attention for their successful reuse of obsolete piers and wharves. State, municipal and private initiatives for harbor redevelopment are now occurring in hundreds of locations throughout the United States.

The redevelopment needs of Providence Harbor do not compare in scale to those of Boston, New York, or Baltimore. However, even modest problems can seem insurmountable when viewed in a narrow context. Although coastal management policies and recommendations are no substitute for carefully planned, adequately financed urban redevelopment programs, they can serve as the starting point for a concerned, continuing effort by state and local government and the private sector to begin the process of waterfront redevelopment in earnest. No city has achieved success in the revitalization of waterfront property and districts in just one or two years. Furthermore, no single agency or private interest has managed to create a success single-handedly.

The Coastal Resources Management Council seeks to promote the revitalization of the Providence Harbor Waterfront in a manner which increases public access and recreational opportunities as well as economic uses. The consideration of Providence Harbor as a single geographic, economic and ecological unit greatly increases the number of individuals whose interest, concern and commitment can be brought to the task of overcoming redevelopment obstacles and providing political and financial support for waterfront revitalization projects.

2. SUMMARY

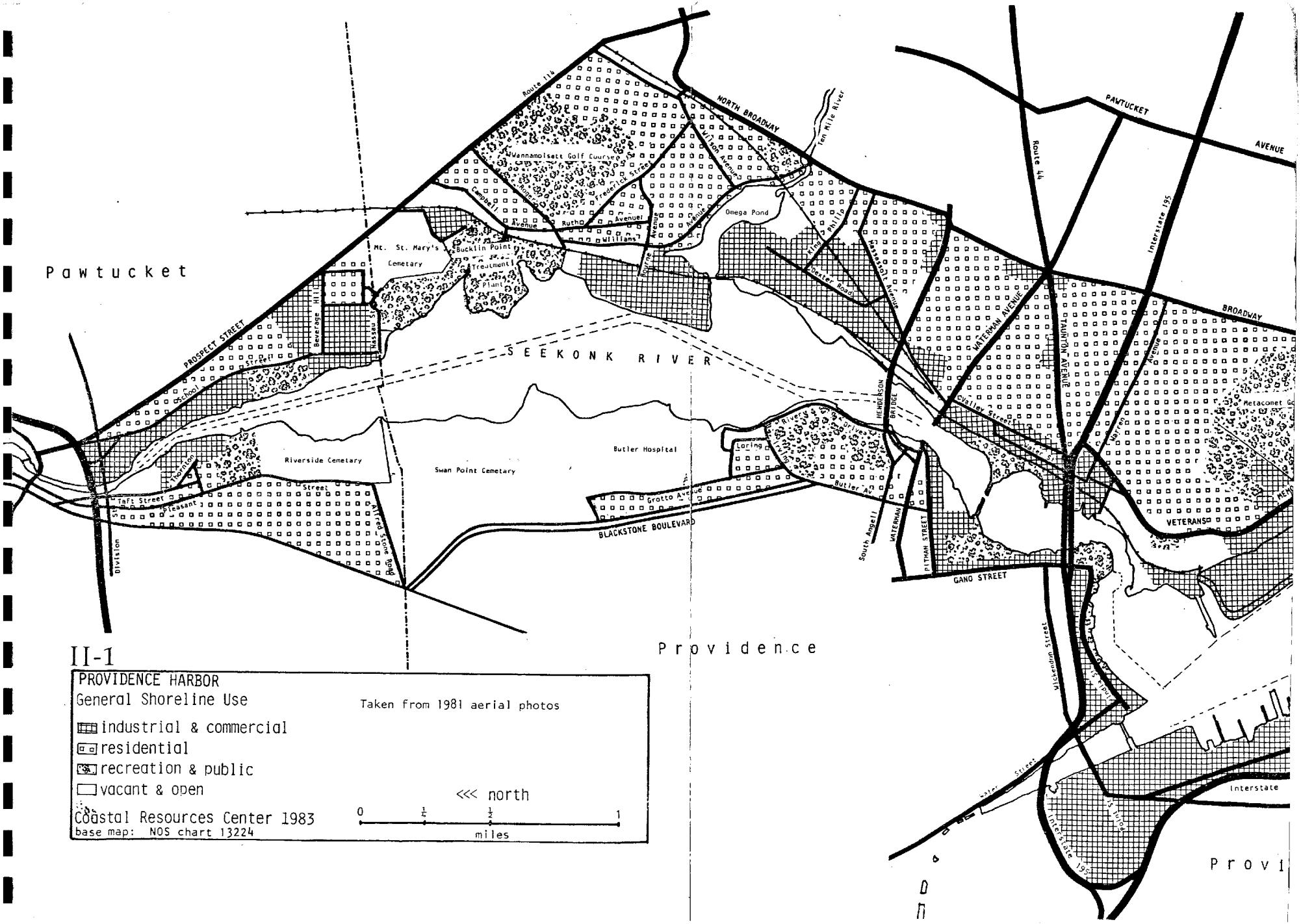
This chapter of the special area plan provides a description of the existing physical condition of Providence Harbor and reviews the many proposals which have been made for redeveloping portions of the Harbor shore, including transportation, commercial and residential, environmental quality and outdoor recreation. Five CRMC goals for shoreline use are presented: transformation of vacant land to high value public and private use, increased outdoor recreation, development of the port industry, improved water quality, and the maintenance of a diversity of uses. Four major policies are set forth to achieve these goals. The first policy pertains to debris removal. The requirement for proper maintenance of shorefront structures are stated, structure abandonment and dumping solid waste are prohibited, and definitions provided of the types of debris subject to removal actions. The details of the removal program include onsite inspections, and oversight by the CRMC committee on Providence Harbor. The second area covered by special area policies is the problem of vacant, abandoned and deteriorated property. The responsibility of municipalities is described, the need for greater public concern mentioned, and CRMC policies on early review of plans and areas of particular concern identified. The third set of

policies discusses outdoor recreation opportunities and needs, including a linear park system concept, the Bay Islands Park, and recreational boating. Finally the CRMC recognizes the complexities involved in developing mixed use project and its responsibility to participate early in the planning of such projects to insure their success.

3. EXISTING CONDITION OF THE PROVIDENCE HARBOR SHORE

Port and industrial facilities dominated the Providence Harbor shore early in this century, providing the expanding metropolitan economy and its growing cities with raw materials, immigrant labor and fuel. The subsequent growth of suburban communities along the Upper Narragansett Bay shore contributed to the loss of open space, shorefront dinner halls, campground and amusement parks. At the same time, aided by mass transit and the automobile, the open sandy beaches at the mouth of Narragansett Bay and the Rhode Island south shore became accessible and popular. Today most of Rhode Island's outdoor recreation activity takes place in southern region of the state.

At present, the Providence Harbor shoreline is a mixture of urban land uses (Figure II-1). Nearly all of the Providence side of the Seekonk River is open space, including parks, atheletic fields, two large cemetaries and hospital grounds. In contrast, the East Providence and Pawtucket portions of the Seekonk are largely in commercial and industrial use, including a major sewage treatment plant. Some of the industrial facilities are unoccupied, and fuel piers have been abandoned. In the Providence River, the City of Providence shore is fully occupied by the port industry, including several oil terminals and the municipal wharf. The East Providence side has four major oil terminals and tank farms, interspersed with public and privately owned open space and recreational lands. Most of the 27,000 cubic yards of



II-1

PROVIDENCE HARBOR
General Shoreline Use

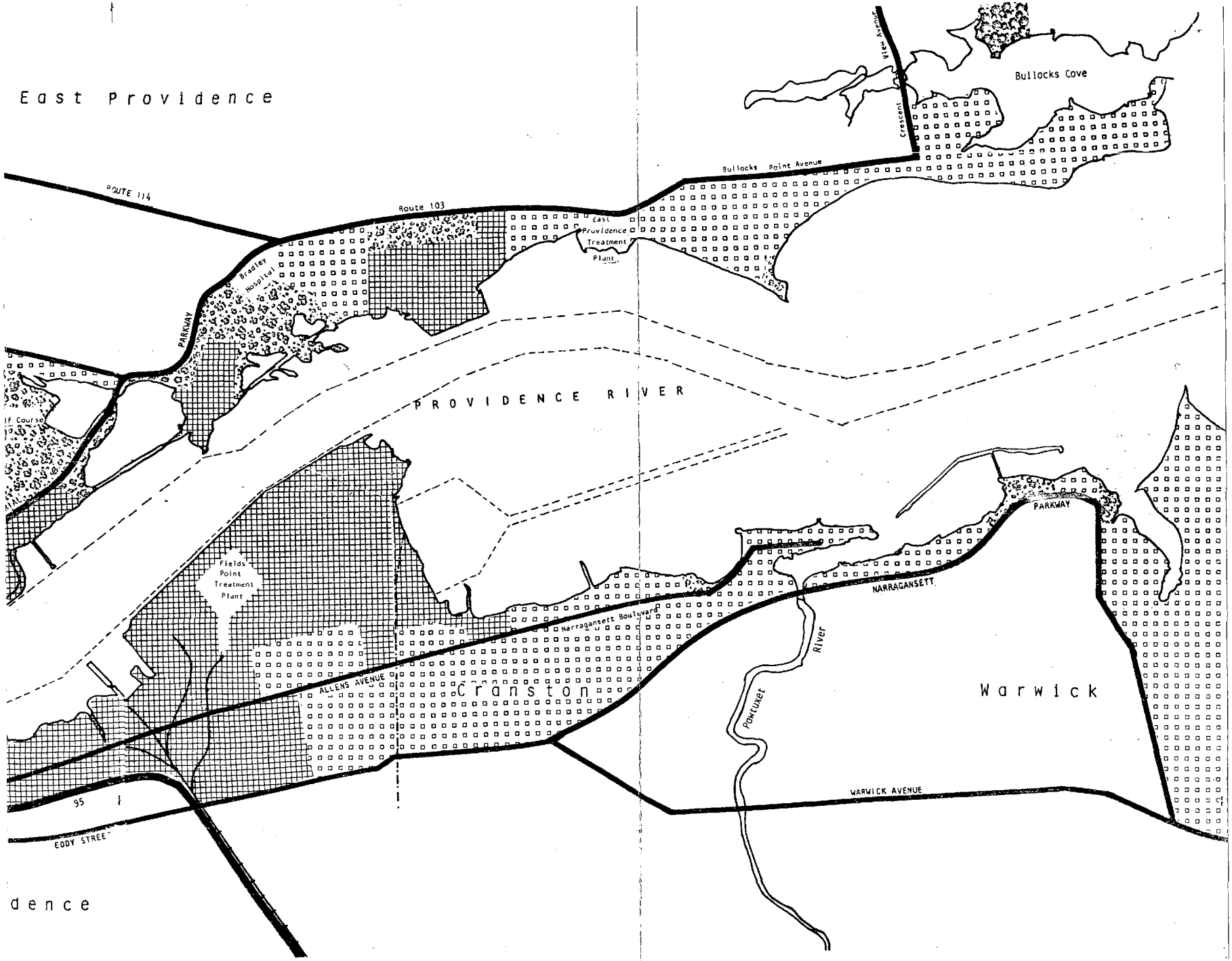
Taken from 1981 aerial photos

- industrial & commercial
- residential
- recreation & public
- vacant & open

<<< north

0 ¼ ½ 1 miles

Coastal Resources Center 1983
base map: NOS chart 13224


East Providence
ROUTE 114
Route 103
Bradley Hospital
PARKWAY
East Providence Treatment Plant
Bullocks Point Avenue
View Avenue
Crescent
Bullocks Cove
PROVIDENCE RIVER
Fields Point Treatment Plant
Narragansett Boulevard
ALLENS AVENUE
Cranston
NARRAGANSETT
PARKWAY
Pawtuxet River
Warwick
WARWICK AVENUE
95
EDDY STREE
dence

shoreline debris inventoried in the Upper Narragansett Bay urban waterfront is located n Providence Harbor in the form of wrecked barges, vessel hulks, dilapidated piers and wharves, pilings and loose onshore material. Some of this material was created from hurricane damage between 1938 and 1954, while other shorefront ruins resulted from the abandonment and neglect of obsolete marine facilities.

Providence Harbor continues to experience changes in its character. Since 1970, several new port facilities have been constructed, including a new transit shed at the municipal wharf, a liquefied petroleum gas (LPG) storage terminal, a partially completed liquefied natural gas (LNG) receiving terminal, an imported automobile processing center, and a small container terminal. A deteriorated transit shed was removed from the Municipal Wharf, and improvement work performed on berths 3, 4, 5, and 6. The Providence and Worcester Railroad completed an early phase of its construction of a large marine terminal. The Gulf Oil Company constructed a new pier for its fuel terminal. A scrap metal export facilities was removed to create India Point Park, in Providence. The abandoned Davol factory in Providence just above the Fox Point Hurricane Barrier on the Providence River is being redeveloped into a complex of offices, shops and apartments. A small marina has opened at the head of the Seekonk River in Pawtucket, while another marina at the mouth of the Seekonk has upgraded its facilities and increased the number of slips.

Unfortunately, other locations in Providence Harbor can be added to the list of abandoned or underutilized shorefront property. Lack of protection from wave action and ice damage forced the closure of a marina at the southern end of Fields Point. The rail line linking Bristol and East Providence was abandoned by the bankrupt Penn Central

company, and acquired by the Rhode Island Department of Transportation. Northeast Petroleum closed its oil storage facility on the Seekonk River. None of the fueling piers in the Seekonk River are now in use. Gulf Oil has recently followed suit. Major industrial operations in the Philipsdale section of East Providence along the Seekonk River were closed during the late 1970s. Waterfront land at the head of the Seekonk River in Pawtucket, near Richmond Square in Providence and in the vicinity of Fox Point is still vacant.

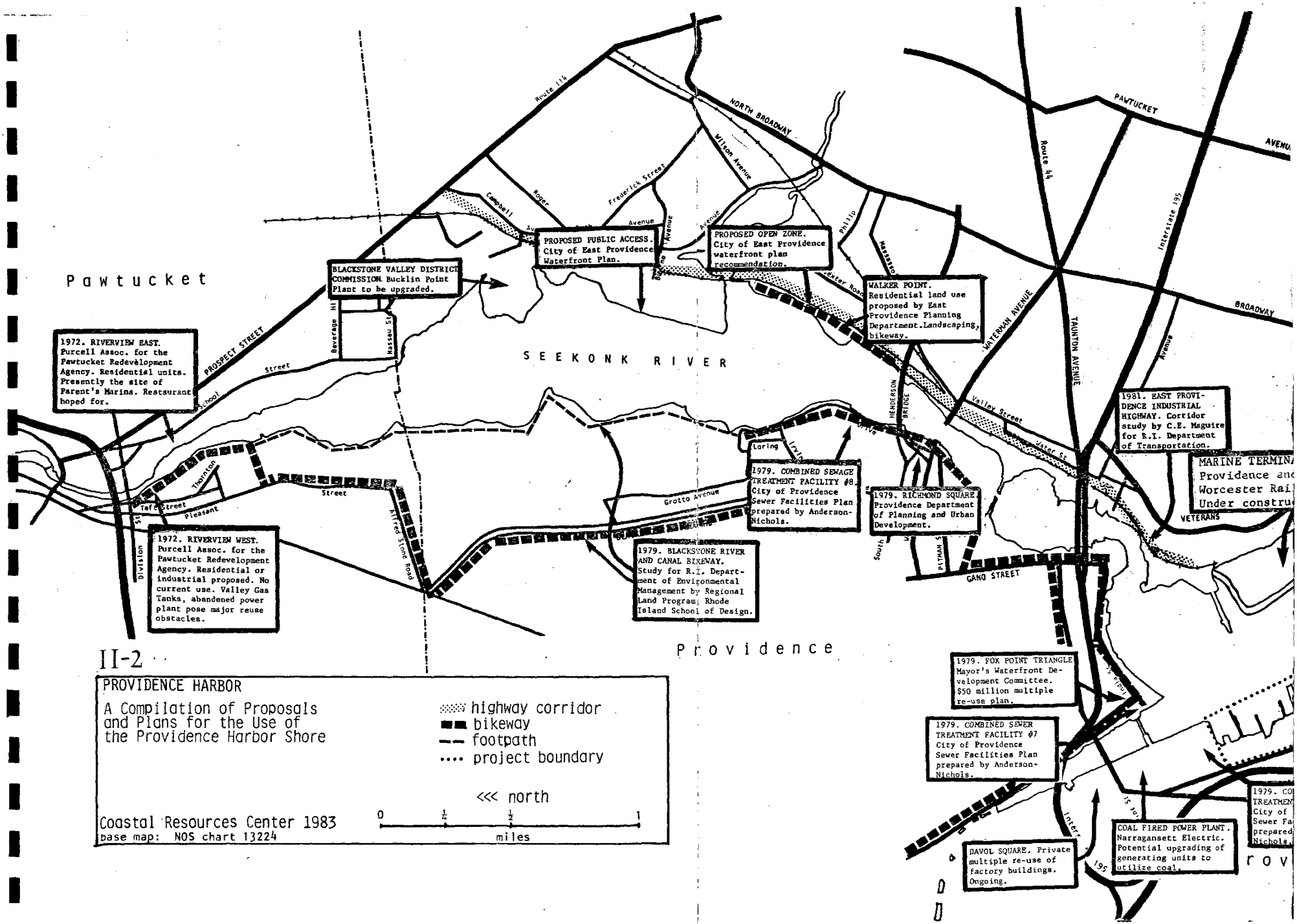
4. PROPOSALS FOR HARBOR REDEVELOPMENT

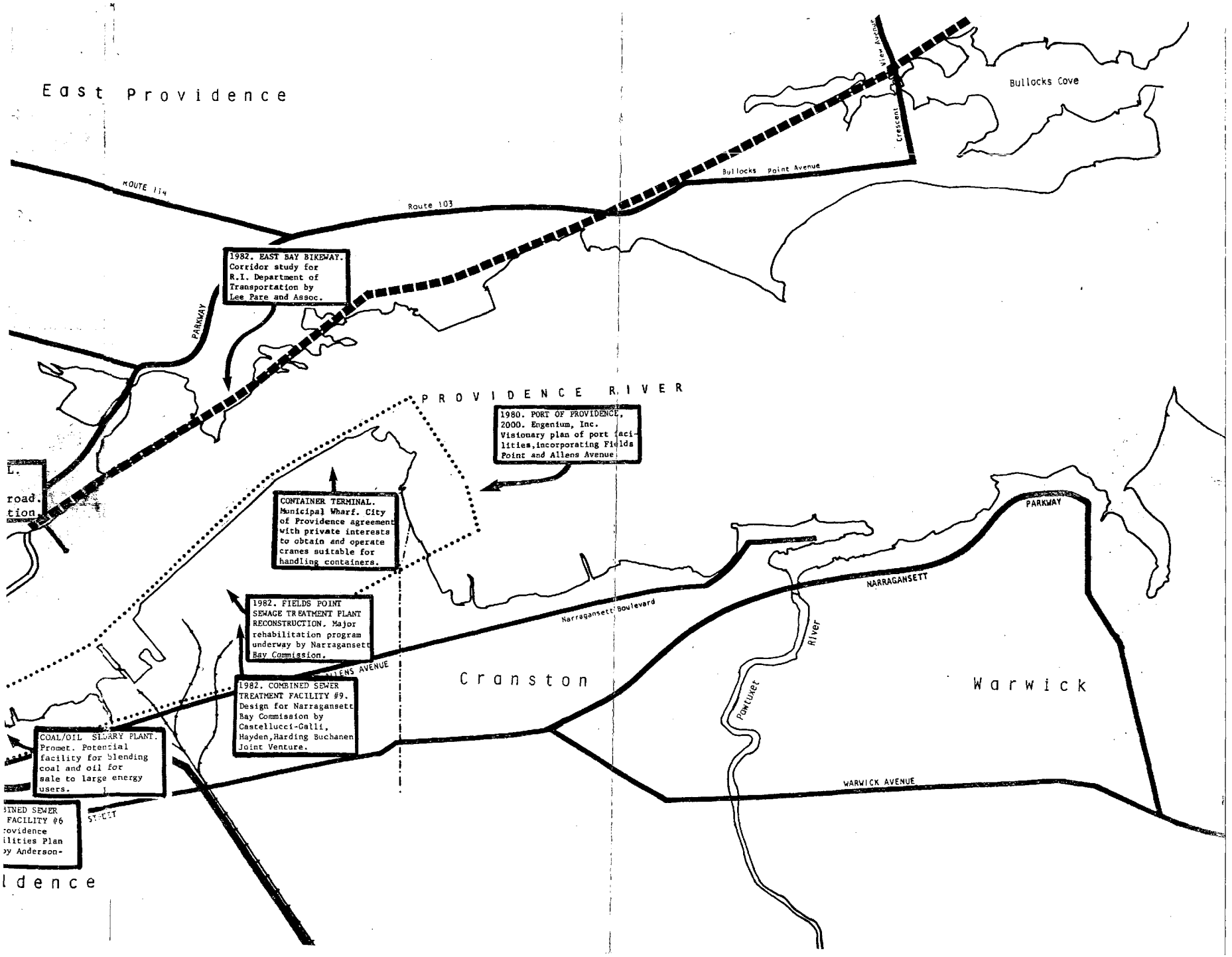
Since the early 1970s there have been many individual proposals and plans developed for improving portions of the Providence Harbor shore. These are shown in Figure II-2 and explained in detail below. Few of these new ideas have been implemented. The most progress has been achieved in the port related physical improvements. Only one commercial-residential redevelopment proposal, the Davol Square complex has reached the construction stage.

4.1 Transportation

The eastern shore of the Seekonk River in East Providence was actively being studied in 1982 and 1983 for highway improvements by the Rhode Island Department of Transportation. The project would create a new industrial highway linking the City of Pawtucket and the Wilkes Barre Pier, traversing the Phillipsdale section of East Providence along the shore of the Seekonk River. Its purpose would be to reduce truck traffic on local residential streets and provide better access to industrial properties and port facilities.

The Providence and Worcester Railroad has commenced construction of a marine terminal in East Providence just south of Wilkes Barre pier. A gravel dike encompassing 34 acres of shallow water has already been


Pawtucket
Providence
SEEKONK RIVER
PROSPECT STREET
NORTH BROADWAY
PAWTUCKET AVENUE
BROADWAY
WATERMAN AVENUE
TAUNTON AVENUE
GANO STREET
VETERANS
Route 114
Route 44
Interstate 195
Wilson Avenue
Frederick Street
Roger
Campbell
Avenue
Phillip
Massasso
Exter Road
Beverage Hl
Hassau St
School
Street
Thornton
Taft Street
Pleasant
Division
Alfred Stone Road
Grotto Avenue
Loring
Irving
Valley Street
Water St
HENDERSON BRIDGE
South
PITMAN S
1972. RIVERVIEW EAST. Purcell Assoc. for the Pawtucket Redevelopment Agency. Residential units. Presently the site of Parent's Marina. Restaurant hoped for.
BLACKSTONE VALLEY DISTRICT COMMISSION Bucklin Point Plant to be upgraded.
PROPOSED PUBLIC ACCESS. City of East Providence Waterfront Plan.
PROPOSED OPEN ZONE. City of East Providence waterfront plan recommendation.
WALKER POINT. Residential land use proposed by East Providence Planning Department. Landscaping, bikeway.
1981. EAST PROVIDENCE INDUSTRIAL HIGHWAY. Corridor study by C.E. Maguire for R.I. Department of Transportation.
MARINE TERMINA
Providence and
Worcester Rail
Under construc
1972. RIVERVIEW WEST. Purcell Assoc. for the Pawtucket Redevelopment Agency. Residential or industrial proposed. No current use. Valley Gas Tanks, abandened power plant pose major reuse obstacles.
1979. BLACKSTONE RIVER AND CANAL BIKEWAY. Study for R.I. Department of Environmental Management by Regional Land Program, Rhode Island School of Design.
1979. COMBINED SEWAGE TREATMENT FACILITY #8. City of Providence Sewer Facilities Plan prepared by Anderson-Nichols.
1979. RICHMOND SQUARE. Providence Department of Planning and Urban Development.
1979. FOX POINT TRIANGLE Mayor's Waterfront Development Committee. $50 million multiple re-use plan.
1979. COMBINED SEWER TREATMENT FACILITY #7 City of Providence Sewer Facilities Plan prepared by Anderson-Nichols.
DAVOL SQUARE. Private multiple re-use of factory buildings. Ongoing.
COAL FIRED POWER PLANT. Narragansett Electric. Potential upgrading of generating units to utilize coal.
1979. CO
TREATMEN
City of
Sewer Fa
prepared
Nichols.
rov
PROVIDENCE HARBOR
A Compilation of Proposals and Plans for the Use of the Providence Harbor Shore
highway corridor
bikeway
footpath
project boundary
<<< north
0 ¼ ½ 1
miles
Coastal Resources Center 1983
base map: NOS chart 13224


East Providence
Bullocks Cove
Crescent View Avenue
Bullocks Point Avenue
ROUTE 114
Route 103
PARKWAY
1982. EAST BAY BIKEWAY. Corridor study for R.I. Department of Transportation by Lee Pare and Assoc.
PROVIDENCE RIVER
1980. PORT OF PROVIDENCE, 2000. Engenium, Inc. Visionary plan of port facilities, incorporating Fields Point and Allens Avenue.
CONTAINER TERMINAL. Municipal Wharf. City of Providence agreement with private interests to obtain and operate cranes suitable for handling containers.
1982. FIELDS POINT SEWAGE TREATMENT PLANT RECONSTRUCTION. Major rehabilitation program underway by Narragansett Bay Commission.
Narragansett Boulevard
ALLENS AVENUE
1982. COMBINED SEWER TREATMENT FACILITY #9. Design for Narragansett Bay Commission by Castellucci-Galli, Hayden, Harding Buchanen Joint Venture.
COAL/OIL SLURRY PLANT. Promet. Potential facility for blending coal and oil for sale to large energy users.
Cranston
Warwick
NARRAGANSETT
PARKWAY
Pawtuxet River
WARWICK AVENUE

emplaced at a cost of $4 million. Plans call for the construction of a ship berths along the edge of the 40-foot deep Providence Harbor channel, with dredged material to be stored onsite behind the berms. A more shallow barge facility may be located along the northern edge of the diked area.

In early 1983, work was completed on the installation of two gantry cranes for handling containers and other cargo at berths 5 and 6 at the Municipal Wharf. This will complement the recently established container terminal operated by Port Providence Warehousing. A visionary twenty year master plan for the physical development of the port area was prepared by private interests in 1980. It incorporates the entire shore area south of Narragansett Electric's Manchester Street power plant to Fields Point as part of a single port operation. A massive, 12,000-foot long wharf would run along the edge of the channel, creating additional land for marshalling yards and warehousing. Non-point vehicle traffic would be diverted from the area. Rail lines and overpasses would be upgraded and a new interchange would be created to directly link Interstate 95 with the port.

4.2 Commercial and Residential

A common element in waterfront revitalization projects is the establishment of a mixture of uses in locations which were once limited to commercial shipping, fishing or industry. It would be undesirable to remove viable port firms and waterfront business. However, new uses should be found to replace obsolete building and improve deteriorated property. Converting vacant or abandoned waterfront land into property with high economic and public values requires first that a potential value exists in the context of the neighborhood, the municipality and the region. Secondly the conversion process requires that government

must step in and pay some of the expense of site planning and preparation in order to make the costs of site development competitive with other property which does not possess such limitations. Finally, there also must be assurance that changes to the surrounding commercial or residential district will contribute to the future success of the development.

Among the attributes of urban waterfront property in Providence Harbor which could contribute to its redeveloped value are:

1. a view of open water, commercial port operations and coastal features;
2. shoreside parks and open space;
3. proximity to marinas, boat ramps and rights of way to the shore;
4. navigation channels and open water deep enough for boating; and
5. closeness to commercial and public facilities in the metropolitan area.

Waterfront property located in Providence Harbor also suffers from several negative attributes, including:

1. the need for extensive site clearing and preparation to make parcels marketable;
2. risk of flood;
3. poor water quality;
4. shoreline debris;
5. poor highway access;
6. deterioriating or incompatible surrounding land uses;
7. competition from non-waterfront developments with lower development costs and compensating amenities;

8. broader metropolitan economic and population shifts which weaken the market for waterfront projects of less than metropolitan or statewide significance.

Many mixed-used redevelopment proposals and ideas for Providence Harbor have surfaced since the early 1970s. In 1972 the Pawtucket Redevelopment Agency funded a study of property which it owns at the head of the Seekonk River on the west and east banks. For the west shore, both residential and industrial developments were proposed. The eastern shore parcel was envisioned for residential units. The only change to the sites which has occurred since the study is the creation of a small marina on the east shore. An early draft of the East Providence waterfront plan included a conceptual plan for a mixed use commercial, residential and recreational complex on land at Walker Point on the river side of the Providence and Worcester rail line between the Waterman bridge and the railroad bridge now owned by the Rhode Island Department of Transportation. It incorporated a bikeway and landscaped open space as well.

In 1979 the City of Providence prepared a redevelopment plan for Richmond Square located at the intersection of Waterman, Pitman and George Streets, which included housing, commercial buildings, and a marina. Although some private interest had been expressed in redevelopment, land and buildings in Richmond Square remain largely abandoned and deteriorated. Also in 1979, a draft plan was prepared for the Fox Point Triangle located below I-195 between the Hurricane Barrier and India Point Park, for the Mayor's Waterfront Development Committee. A proposal for historic preservation and new commercial and residential uses costing an estimated $50 million was recommended. No action has been taken on this plan, although there continues to be some private

interest in the area for maintaining commercial uses such as manufacturing and restaurants.

Not all redevelopment plans for Providence Harbor have been shelved. A private venture purchased the abandonded Davol factory located on Point Street between the South Street and Manchester Street power plants and is creating a commercial and residential complex called Davol Square. Although the Providence River is not a prominent feature of the project, it is an example of the creative reuse of abandoned property in the waterfront area which when completed will include shopping, offices and apartments.

4.3 Environmental Quality

The most expensive plans for improving Providence Harbor pertain to the rehabilitation of wastewater treatment plants at Fields Point and Bucklin Point and the construction of combined sewer overflow treatment facilities in Providence, Pawtucket, and Central Falls. The most important of these is the reconstruction of the sewage treatment plant serving Providence, North Providence and Johnston which is operated by the Narragansett Bay Water Quality Management District Commission. The Bay Commission plans to spend $80 million in federal, state and user funds to bring the treatment plant into compliance with national standards. In addition, the City of Providence Facilities Plan recommended the construction of nine combined sewage treatment facilities (CSTFs) throughout Providence. These would provide primary treatment and chlorination of the mixed sewage and street runoff which flows out of many combined sewer pipes during storms. One was proposed to be located in the vicinity of Blackstone Park (area 8) on the Seekonk River, another at Fox Point just below the Hurricane Barrier (area 7) third near the Manchester Street Power Station (area 6) and a fourth

adjacent to the Field's Point Treatment Plant (area 9). Five more were recommended on the Woonasquatucket and Mosshasuck River which feed the Providence River. The total cost of the facilities pier was estimated to be $250 million. The Narragansett Bay Commission is presently engaged in examining the combined sewer problem in greater detail, with studies of two of the proposed treatment facilities already completed.

Construction for the Field's Point Treatment Plant will begin in 1983. A study was completed in 1982 for the Area 9 combined sewer treatment facility which is the largest single source of combined sewage to Providence Harbor. The Area 9 project has been separated into two phases. The first will involve building a structure to divert raw sewage from the overflow pipe to the treatment plant during dry weather. The second phase will involve a facility for treating the combined sewage during rain storms. The other CSTFs which would control combined sewage discharges directly to Providence Harbor will be the subject of subsequent engineering-studies.

4.4 Recreation

Several concepts have been proposed for increasing public use of the Harbor and its shore for outdoor recreation including bikeways, open space and marinas.

The most active project involves a study during 1982 and 1983 of the feasibility of constructing a bikeway along the 14.5 mile rail right of way which the Rhode Island Department of Transportation owns between Bold Point at the mouth of the Seekonk River and the town of Bristol. The right of way includes a major portion of the East Providence shoreline which has been closed to public access since the mid-1800s. It also links several publicly owned recreation and open space areas, creating the potential for a major linear park system along the eastern

edge of Providence Harbor.

A study by the Rhode Island School of Design in 1979 included a bikeway along the Providence shore of the Seekonk River as part of a comprehensive access program for the Blackstone River and Canal. The proposed bikeway would link open areas at Fox Point, India Point, Gano Street Playground, Blackstone Park, Butler Hospital, Swan Point and Riverside Cemetaries, and Max Read Field in Pawtucket. A bikeway was suggested for the Walker Point area in East Providence as part of a mixed use redevelopment plan.

Recreational boating facilities have always existed in Providence Harbor. The Brown University Crew Team utilizes the Seekonk River along with recreational rowing by members of the Narragansett Boat Club. New developments include Parent's Marina at the head of the Seekonk River and expansion and renovation work at the Oyster House Marina below the Washington Bridge. The only specific proposal for new marina construction was associated with the Richmond Square Redevelopment Plan on the Seekonk. Bold Point in East Providence has an unpaved ramp which sees occasional use, while a City of Providence right of way at India Point Park is not usable. A deteriorated ramp exists at Stillhouse Cove Park in Cranston.

5. GOALS FOR SHORELINE USE IN PROVIDENCE HARBOR

The Coastal Resources Management Council considers the urbanized waterfront of Providence Harbor as one of Rhode Island's valuable coastal resources. The CRMC desires to increase the overall contribution which Providence Harbor makes to the wellbeing of nearby residents and the region in terms of marine recreation, environmental quality and economic activity.

The goals for the shoreline use of Providence Harbor are:

1. To transform deteriorated, abandoned and vacant waterfront property to high value public and private uses.

2. To more effectively utilize open space for outdoor recreation.

3. To protect the economic viability of the port industry and marine commercial uses.

4. To improve the condition of the estuary in order to support greater recreational use, remove aesthetic impediments to waterfront redevelopment projects and reduce the impact of Harbor pollution on Narragansett Bay.

5. To foster and protect the existence of a diversity of uses in the Harbor in recognition of the capacity of the area to serve a variety of purposes and the persistence of unfulfilled human needs in the surrounding communities for employment, outdoor recreation housing and environmental quality.

6. POLICIES AND REGULATIONS FOR SHORELINE USE IN PROVIDENCE HARBOR

The Coastal Resources Management Council recognizes that the needs for redevelopment and improvement programs throughout the metropolitan area is far greater than the amount of government and private sector resources available to carry them out. However, the CRMC views the problems and opportunities in Providence Harbor as matters of statewide importance. Successful revitalization efforts in the urban waterfront will not only benefit adjacent neighborhoods but the metropolitan area and Rhode Island as a whole. The shoreline use policies and rules which follow are designed to encourage the establishment of new public and private uses which take advantage of proximity to the Harbor, and to promote a carefully balanced mixture of uses. These changes will enable the public to enjoy the shore as well as attract sufficient financial investment to reverse the process of deterioration and keep the water

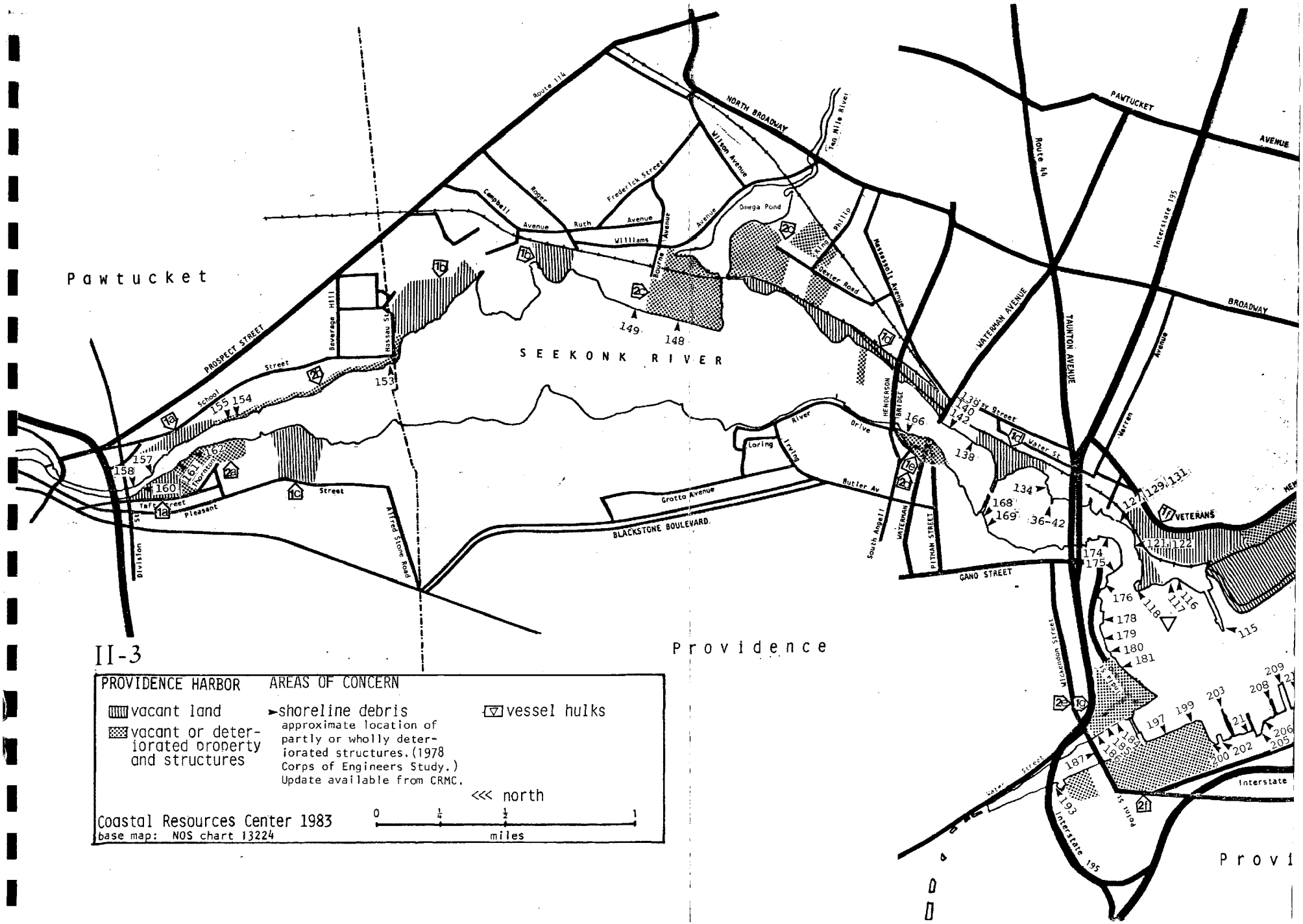
front districts of each municipality economically and socially viable for the future.

6.1 Shoreline Debris

There are approximately 27,000 cubic yards of shoreline debris, including waterfront structures, derelict vessels, loose onshore and floating material (Figure II-3). Shoreline debris is a hazard to navigation, detracts from the visual quality of the Upper Narragansett Bay and adversely affects the value and redevelopment potential of waterfront property. Debris removal is widely recognized as beneficial to both the public and private sectors. A revised Army Corps of Engineers' estimate of the total cost of removing this debris in a one time harbor clean-up is $7 million. Present federal law would provide two thirds financing for the removal of material whose owner cannot be identified. Unfortunately this means that the federal share would be only 25 percent of total costs. State, local, and private funds for the remaining $5.3 million would have to be raised before the federal funds could be spent.

Ninety-nine percent of the total amount of debris attributable to shorefront structures in Providence Harbor is estimated to be owned by only 33 firms, individuals or public agencies. These sites contain half the debris from all sources in the Upper Narragansett Bay shore. A questionnaire survey of these owners in 1982 verified much of the information which has been compiled on these sites, demonstrated a widespread willingness by owners to have on-site inspections of their property, and revealed unresolved conflicts over ownership in certain cases.

a. Maintenance of Shorefront Structures and Property. The abandonment of vessels, piers, wharves or other such structures in the



II-3

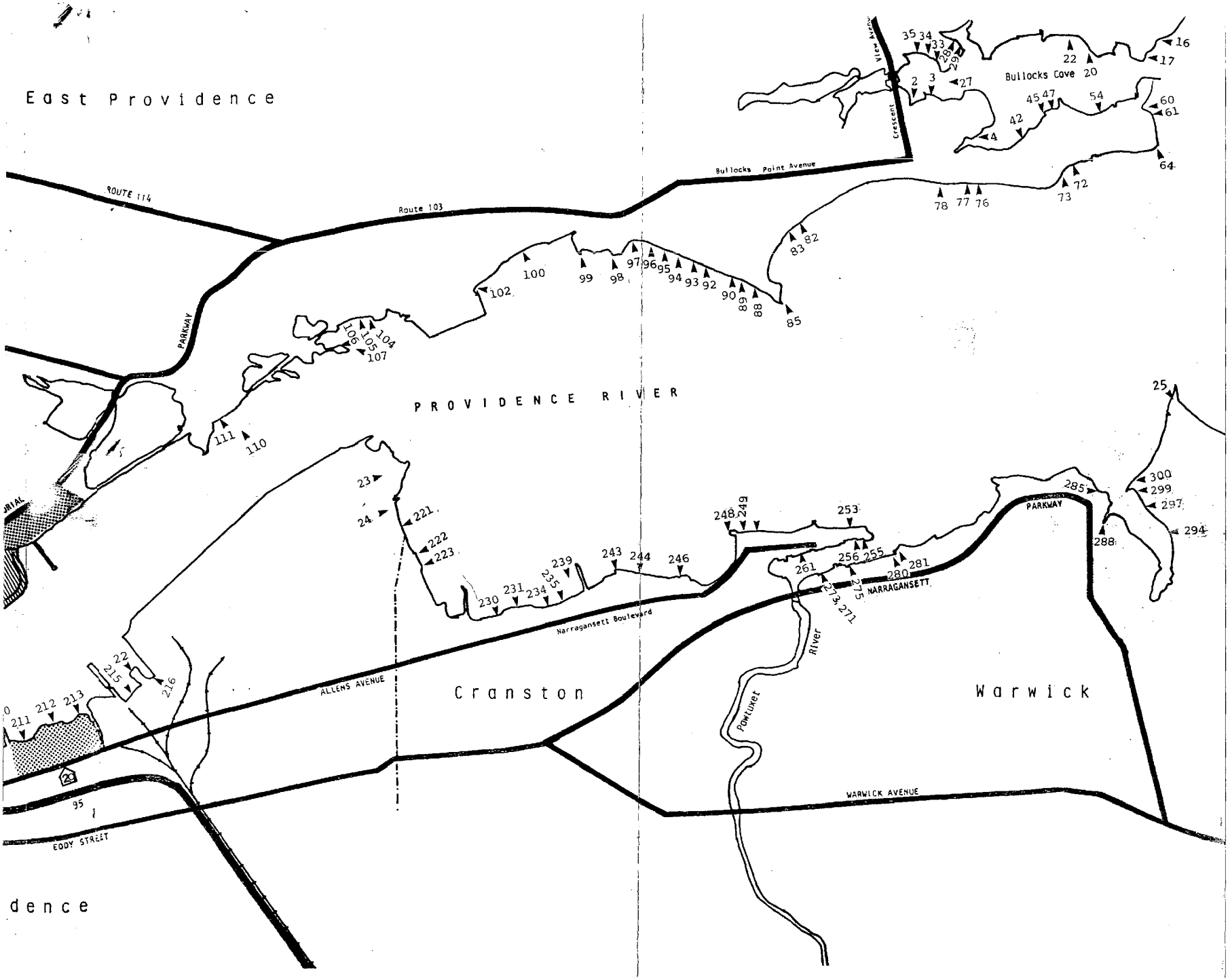
PROVIDENCE HARBOR AREAS OF CONCERN

- vacant land
- vacant or deteriorated property and structures
- shoreline debris — approximate location of partly or wholly deteriorated structures. (1978 Corps of Engineers Study.) Update available from CRMC.
- vessel hulks

<<< north

Coastal Resources Center 1983
base map: NOS chart 13224

0 1/4 1/2 1 miles


East Providence
ROUTE 114
Route 103
Bullocks Point Avenue
View Avenue
Crescent
Bullocks Cove
PARKWAY
PROVIDENCE RIVER
Narragansett Boulevard
ALLENS AVENUE
Cranston
Warwick
NARRAGANSETT
PARKWAY
Pawtuxet River
WARWICK AVENUE
EDDY STREET
dence

navigable waters of the State of Rhode Island is specifically prohibited by the Coastal Resources Management Council. The dumping of any solid waste along the shore is also prohibited. Modification to the shore or manmade shoreline features are subject to the permit procedures established in the Coastal Resources Management Program Document and all structures are required to be kept in good condition. Upon verification of legal title to abandoned structures the CRMC shall order their removal at owner expense within a time period specified in said order. In 1979, the General Assembly provided the Department of Environmental Management with specific authority to enforce these state policies by requiring the removal of abandoned vessels and shoreline debris.

b. Debris Subject to Removal. Every pier, wharf, bulkhead, dock, shore protection structure, or foundation must be maintained in good working conditon in service of its intended purpose. Waterfront structures which have deteriorated so that portions of the construction are broken, detached or likely to fall away, possibly entering the water or littering the shore, must be repaired and the site cleaned. Structures which are so deteriorated that they cannot serve an economic or public function must be removed and the site returned to a cleared condition. Solid waste of every type must also be removed. Unauthorized fill is also subject to CRMC action.

c. Debris Removal Program. In recognition of the financial hardship which would be imposed upon communities, debris owners and the state by a one time centrally organized debris clean up effort, the Department of Environmental Management and the Coastal Resources Management Council has jointly developed a debris removal program for Upper Narragansett Bay which seeks to work cooperatively with all debris owners to achieve compliance with these policies and prohibitions at a

reasonable cost.

The State will provide:

1. Site inspections to determine the precise need for repair or removal, and assistance in pricing and least cost removal techniques.

2. A reduced charge at the Rhode Island Solid Waste Management Corporation landfill for certified program participants.

3. Area debris removal task forces which will enable participants to coordinate removal and disposal efforts in order to reduce costs of mobilizing equipment and trucking material to a disposal site.

In addition Rhode Island encourages the Army Corps of Engineering to proceed with its proposal to remove eligible material such as wrecked vessels and structures with no identifiable owner. The CRMC and DEM will also continue identifying debris sources, dumps, and illegal filling of the shore, following up with appropriate action.

d. Site Inspections

1. The CRMC and the DEM will begin immediately to conduct site inspections and establish terms of compliance for identified debris owners. Owners will be issued a document which describes the condition of the site, the nature and amount of debris to be removed, suggested techniques and cost saving measures, and a time schedule for compliance.

2. CRMC and DEM will periodically inspect the progress of the debris owner toward removal of the debris. When the work has been completed, a certificate of compliance will be issued to the owner. This will serve as a record of the owner's contribution to the local share of costs of the federally assisted debris removal program planned by the Army Corps of Engineers.

e. Debris Removal Program Oversight. In addition to obtaining the cooperation of debris owners, a complete Harbor clean-up will require the removal of wrecked vessels, hulks, material whose owner cannot be identified, and floating and loose shoreline debris. The CRMC's subcommittee on Urban Ports and Harbors will be charged with identifying additional debris owners, organizing efforts to remove loose shoreline debris, providing support to local efforts to cleanup specific reaches of the Upper Bay shoreline, and monitoring removal activities.

6.2 Vacant, Abandoned, and Deteriorated Property

The Coastal Resources Management Council is very concerned about the adverse effect of poorly maintained, underutilized waterfront property upon the habitability of neighborhoods, the strength of metropolitan economy and the chances for success of proposals to redevelop nearby waterfront areas in Providence Harbor. Deteriorated lots and structures are the physical manifestations of social and economic changes which have shifted resources and people to other parts of a city or to more attractive, less crowded parts of the Rhode Island coast.

The decayed portions of the shore, do present coastal cities and developers with an opportunity. Land is the basic ingredient needed to take advantage of the insatiable public demand for access to the water. Unfavorable conditions which have kept a waterfront parcel in poor condition, such as inadequate road access, high site preparation costs, continuing decline in the appearance and condition of the surrounding neighborhood, or physical limits of site reuse can be balanced by low purchase price and avoidance of the need to disrupt and relocate viable firms and uses. The benefits to a city of investments in urban shore property over the long term may not be realized because of the shorter

term decision criteria of developers. Public intervention is often required to overcome the inertia exhibited by the private sector. In some parts of Providence Harbor existing water related uses can serve as the anchor for improvements to adjacent parcels. Land uses which do not conform to a plan stressing relationships to the water are likely to be transformed once a few new waterfront projects have become established.

Ideally, full utilization of the values of tidal water as a physiographic feature of the metropolitan area would simply be one element of a comprehensive plan for revitalizing the urbanized estuary. The responsibility for making such plans has traditionally rested with municipalities except where state owned property is involved. The waterfront district constitutes only a small portion of the total area which requires the attention and resources of city administrations. From the perspective of coastal resources management, the condition of the urbanized portion of the estuary is of statewide concern. The loss of population occurring in metropolitan Providence has been accompanied by greatly increased development pressures along the rest of the coast. The lack of public access and recreational oportunities in Providence Harbor contributes to the socially detrimental unmet need for outdoor recreation in the metropolitan area, particularly among groups who cannot afford to frequently visit the southern coast of the state. A willingness to give up on the quest for improvements on Providence Harbor would mean the expansion of unchecked pollution, increased shore debris and greater urban decay further down the coast. An erosion of public support for state environmental protection programs can also be expected if the benefits of those efforts do not occur close to population centers.

The CRMC has identified many areas which are vacant, abandoned or

deteriorated (Figure II-3). Although studies or plans have been prepared for some of these locations by municipalities, few steps have been taken toward implementation. The following policies and recommendations pertain to the need for a concerted effort to find better uses for these parcels which contribute to the state's goals for Providence Harbor.

a. The responsibility of municipalities. Municipalities are strongly encouraged to examine the problem of the deterioriation of their shores and consider the development of realistic plans for upgrading uses and conditions as part of the community planning process. The concept of waterfront revitalization has generated considerable enthusiasm in cities throughout the nation. Coastal and river waterfronts adjacent to a central business district are a unique resource which a number of cities are trying to recapture to increase the diversity and attractiveness to firms and people. The opportunities for outdoor recreation which can be incorporated into a well-developed waterfront provides direct benefits to residents of adjacent neighborhoods, the entire city, and can also attract people from throughout a region. This regional drawing power is the essence of a city's economic strength. The inherent attractiveness of the suburban and rural coastal communities combined with greatly improved highway access has drawn thousands of families with middle and high incomes away from Providence and its suburbs. The CRMC urges the municipalities surrounding Providence Harbor to work together on exploring specific ways to redevelop parcels in contiguous reaches of the Harbor in a manner which will be of interest to the entire metropolitan area.

b. Heightening public awareness and interest. The CRMC through its permanent subcommittee on Urban Ports and Harbors and its public

advisory group will create a public forum for giving much needed public attention to ideas for reusing shore property that contributes to revitalization goals for Providence Harbor. Important issues which must be addressed jointly by state and local officials, citizens and the private sector include:

1. desires and needs of neighborhood residents for access to the shore, recreation, housing and commercial establishments;
2. economics of waterfront redevelopment in the context of metropolitan economic stagnation and decline;
3. design considerations in achieving a successful mix of uses serving many purposes and needs;
4. feasibility of private codevelopment ventures;
5. strategies for converting abandoned facilities to new uses;
6. timing and compatibility of implementing existing public and private plans, taking advantage of linkages to public works programs such as road, bikeway, and sewage treatment facility construction;
7. plans of individual shorefront property owners.

c. Early review of plans. The CRMC will participate at an early stage in the review of municipal comprehensive and site specific redevelopment plans with a potential for affecting the Providence Harbor waterfront. Its review will include the following concerns in addition to those incorporated into the CRMC program document.

1. Provision for visual and physical access to the shore and Harbor waters.
2. Utilization of visual or physical proximity to the water as a design feature and a determinant of parcel usage.
3. Relationship of proposed use to existing water oriented

establishments and open space.

4. Contribution of the plan to removing other impediments to waterfront redevelopment, such as shoreline debris and water pollution.

Planning and redevelopment agencies will be encouraged to submit their plans in draft form for informed consideration by the CRMC and its HELP Advisory Committee. Otherwise, the CRMC requires that it be notified of the earliest presentation of a relevant proposal or plan to a municipal decision making body or the public (see Chapter V).

d. Areas of particular concern. The following locations in Providence Harbor are designated as areas of particular concern to the Coastal Resources Management Council (See Figure II-3):

1. Vacant land with potential for public, commercial, or residential uses that benefit from proximity to the water include:

(a) property owned by the City of Pawtucket on Taft and School Streets;

(b) State owned property north and south of the Bucklin Point sewage treatment plant;

(c) the northern portion of the Riverside Cemetery;

(d) A two mile long strip of largely empty waterfront land to the west of Providence and Worcester rail line, between the dam of the Ten Mile River and Washington Bridge;

(e) several parcels above and below Richmond Square in Providence;

(f) Bold Point, eastward to Veterans Memorial Parkway;

(g) parcels in the Fox Point area;

(h) the uncompleted Providence and Worcester marine terminal;

2. Vacant or deteriorated property including:

(a) the industrial area north of the Max Reed Field in Pawtucket;

(b) the shore generally below Parent's Marine in Pawtucket to state land north of the Bucklin Point sewage treatment plant, including the Seekonk Reservation;

(c) the abandoned Washburn Wire/Okonite facility above the dam of the Ten Mile River which is undergoing some revitalization and the closed Bird and Son complex, Northeast Petroleum tank farm and Getty Oil barge pier below the dam in East Providence;

(d) the abandoned buildings and property around Richmond Square between the Waterman Street Bridge and the Gano Street Playground in Providence;

(e) the Fox Point Triangle;

(f) the South Street and Manchester Street Power Stations;

(g) The area between the Donovan Chemical Company and the Texaco Tank Farm on Allens Avenue;

(h) The Gulf Oil tank farm and marine terminal.

The CRMC encourages state and municipal government agencies and private interests to develop specific reuse proposals or plans for these sites.

6.3 Outdoor Recreation

The residents of the Providence Metropolitan area still suffer from a long recognized shortage of outdoor recreation opportunities. Rhode Island state and local governments spend less on recreation programs and facilities than their counterparts elsewhere in the country. Increased participation in recreational boating has not been accompanied by sufficient expansion of marina slip capacity or development of boat

launching ramps. This problem is particularly severe close to the Providence metropolitan area in Upper Narragansett Bay. The residents of East Providence have virtually no access to their 14.4 mile shoreline, with the exception of Sabin Point Park, the Veteran's Memorial Parkway Overlook, and the state operated Squantum Woods Grove. Pawtucket has only two playing fields--the Seekonk Reservation and Max Read Field, neither of which take advantage of their waterfront location. Residents of Providence's East Side neighborhoods are close to Blackstone Park, Gano Street Park, and India Point Park. However, there are no other public access points on the western shore of Providence Harbor for nearly five miles until Stillhouse Cove Park, and Salter Grove at the mouth of the Pawtuxet River. Virtually no suitable facilities exist for recreational fishing such as safe piers, jetties or bridges, although fishing is a popular activity in many urban waterfronts. The first step in achieving harbor-wide revitalization is to gain public attention and interest. This can be effectively accomplished by providing many more opportunities to experience and use the area through outdoor recreation.

a. A Providence Harbor Linear Park System. The Coastal Resources Management Council urges state agencies and municipalities to work together to develop a unified approach in planning, financing and developing shorefront recreational facilities. Much needs to be done to understand the specific recreational needs and interests of neighborhood residents and to identify developments of appeal to the metropolitan area. The Department of Transportation study of bikeway from Bristol through East Providence along the eastern shore of the Providence River is an excellent opportunity to explore the linkages among publicly owned open areas and to incorporate additional forms of access such as boat

launching ramps and fishing piers as part of the bikeway development. An industrial highway corridor study linking the Wilkes Barre Pier with Pawtucket provides an additional opportunity for improving visual and physical access to the shore.

In Providence, the Rhode Island School of Design's Regional Land Program proposed to link public and open areas along the shore between the Blackstone River and South Water Street near the Fox Point Hurricane barrier with a bikeway and path system, as well as provide a link between the east and west shores of Providence Harbor. Consideration should be given to providing continuous pedestrian and bicycle access along the shore between India Point Park and Blackstone Park.

Trail signs of a consistent design and notation would be an important part of a linear park. In addition, interpretive maps of the landscape are needed. The Veteran's Memorial Parkway Overlook in East Providence provides a wide, clear view of downtown Providence and the entire Port district, but offers the viewer no information or key to these sights. A comprehensive map of the system and nearby points of interest should also be prepared.

b. Gateway to the Bay Islands Park. A passenger ferry provides regular service from India Point to Block Island, passing through the Bay Islands Park System in Narragansett Bay. The terminal at India Point is a plywood shack with no interpretive maps or signs. As facilities in the Bay Islands Park System improve, the India Point terminal could serve as a major embarkation point for the park for metropolitan area residents. By drawing visitors from throughout the region additional recreation oriented commercial enterprises could be supported in the vicinity of the Fox Point Triangle. Improvements to this area, on the other hand, would also contribute to public interest

in using the facilities to visit the Bay Islands Park.

c. Recreational boating. Some new efforts have been made in recent years to increase the availability of marina slips. Parent Marine, located at the head of the Seekonk River provides a limited number of slips seasonally to powered boats. The Oyster House marina, located in East Providence just below the Washington Bridge, has rehabilitated a structure used during the peak of the oyster industry in Providence Harbor at the beginning of this century, and expanded slips for power boats as well. Port Edgewood, Edgewood Yacht Club and the Rhode Island Yacht Club are well established facilities. These marinas serve principally sportfishing enthusiasts, people who live aboard their boats during the summer, and day cruisers.

Providence Harbor is considered too distant from popular sailing routes along the southern New England coast to interest many owners of large (over 22 feet long) sailboats requiring wet storage. However, the middle and lower income families which make up the majority of people in the metropolitan area are not likely to own expensive power or sail boats with sleeping accommodations and wet storage requirements. These families are more likely to own or desire to purchase a trailerable sailing or powered craft suitable for day trips within Providence Harbor and Narragansett Bay. Unfortunately, boat launching facilties suitable for this broad group are virtually non-existent.

The CRMC recognizes the existence of several constraints to the further expansion or development of marinas and boat launching ramps. Dredged material disposal problems have made it difficult for some marina operators to keep existing slips fully usable. A shortage of land for parking and facilities marks expansion of existing operations difficult even if dredging and slip construction are not problematic.

High land prices, shallow water outside the channel in the Seekonk River, as well as highway bridges and narrow passages caused by two unused railroad bridges, present physical constraints for new marina construction. Aesthetic and health concerns from water pollution may trouble potential users of the Harbor. The financial problems facing municipalities and the state government in general leaves even less to spend on outdoor recreation projects than usual.

In order to secure and more widely distribute the benefits boating access to Providence Harbor could provide to urban residents, the Coastal Resources Management Council adopts the following policies:

1. State and local recreation agencies are strongly urged to cooperatively develop a plan for the siting, design, financing and construction of one or more first class public boat launching facilities for trailerable power and sail craft on the east and west shores of Providence Harbor. Sites with potential for this use include (Figure II-4):

(a) a privately held parcel on the East Providence shore just below the Henderson Bridge, presently used intermittently for bulk storage.

(b) Bold Point, owned by the City of East Providence, and nearby property at the base of the bluff near the East Providence dog pound.

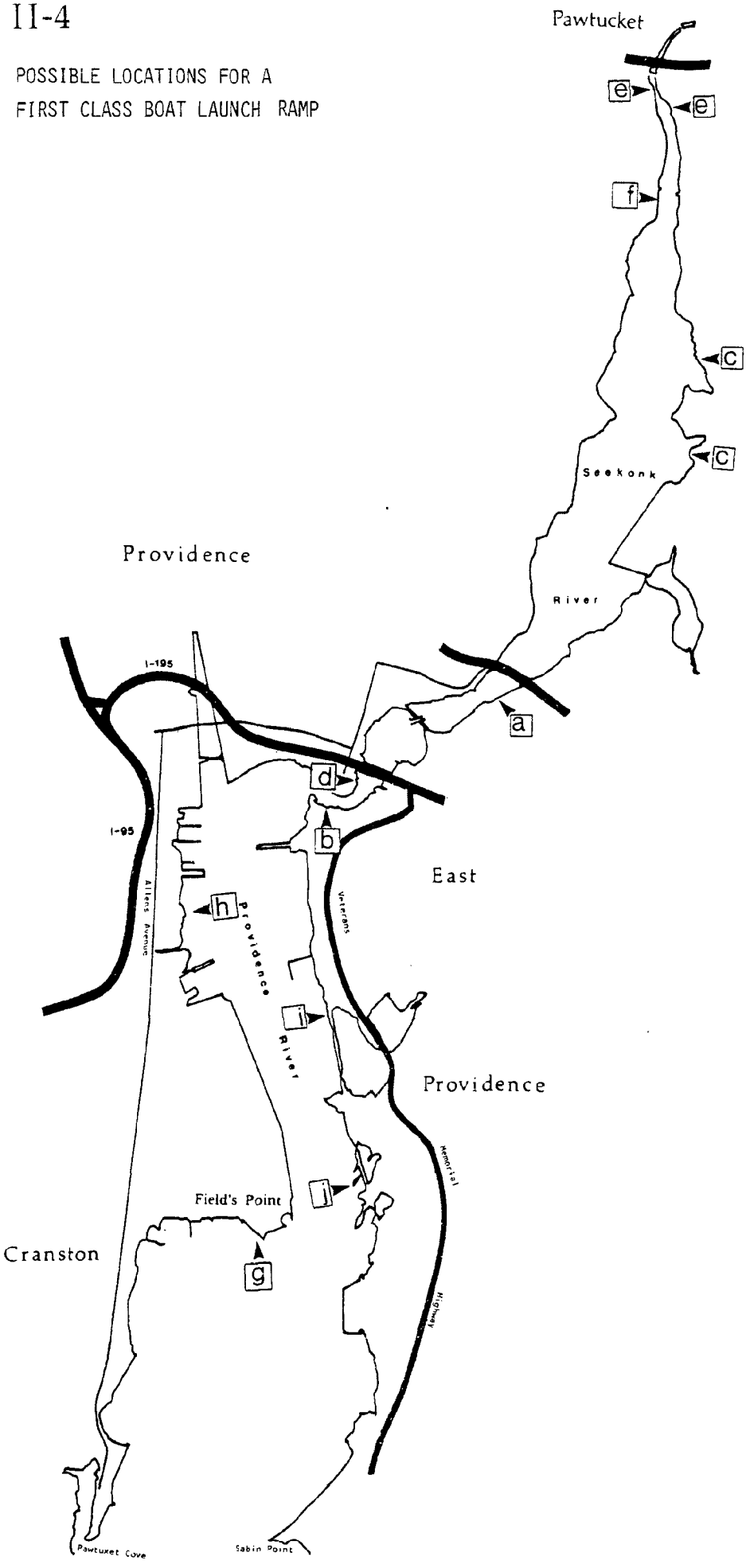
(c) State owned land above and below the Bucklin Point Sewage Treatment Plant.

(d) India Point Park.

(e) Land held by the Pawtucket Redevelopment Agency both sides on both sides of the Seekonk River.

(f) Max Read Field area.

POSSIBLE LOCATIONS FOR A
FIRST CLASS BOAT LAUNCH RAMP



(g) Southern Fields Point area.

(h) Allens Avenue between Donovan Chemical and the Texaco oil terminal.

(i) The river side of Watchemoket Cove.

(j) Squantum Point.

2. One or more new full service marinas may have the potential for development in the future. The southern Fields Point area, has the advantage of a deep basin and channel, plus adjacent land away from residential neighborhoods. However, this area is unprotected from southern winds, wave action and storms, and is subject to ice damage. The City of Providence redevelopment plan for Riverside Square included a proposed marina. Land just across the river, (see 6.3 c. 1. (a) above) would be equally suitable. Dredging and dredged material disposal area likely to be constraints. Vacant or underutilized parcels along Allens Avenue may also have some potential for marina development, although the development costs may be higher, surrounding uses incompatible, or a more intensive use of the site required to make a marina feasible.

3. A critical problem facing existing marinas is the disposal of dredged material in order to maintain slips at a usable depth. The continued deterioriation of the marinas facilities contrains CRMC goals for outdoor recreation in the Harbor. The CRMC encourages consideration of in-harbor disposal solutions as part of a comprehensive dredged material disposal policy for marine facilities in Providence Harbor.

4. Limited expansion of existing marinas may be possible in some cases. However, the general lack of shorefront acreage presents a

serious obstacle to proper facility operation, and increases the likelihood of adverse effects on the marina or neighboring property owners and residents. The prevailing high density of residential development in much of the shore requires a careful balancing of outdoor recreation goals with other important uses of the shore.

6.4 Mixed use redevelopment projects

In order to attract high quality redevelopment proposals which enable goals for outdoor recreation to be met, along the urban waterfront, municipalities may have to encourage and accommodate mixed use projects which combined commercial, residential and public uses. Complex negotiations and financial packages may be required to ensure that the interest of both the public and the developers are protected thereby assuring the project's success. The CRMC desires to participate at an early stage in the planning of such projects to insure that its goals and policies will be met, and that unnecessary and possibly costly mistakes and delays are avoided. The CRMC recognizes its responsibility in working to assure progress in Harbor revitalization in order to create a greater awareness and public support for redevelopment efforts, and to create an environment of cooperation among the public and private sectors in order to assure that a satisfactory balancing of competing uses is achieved.

III.
port
industry

III. Port Industry Development

1. INTRODUCTION

The future of the port industry in Providence Harbor depends on many factors, including trends in coastal and international shipping, actions by competing ports, New England industrial production and imported goods consumption, the physical development of the Harbor and the planning and management decisions of port businesses and public officials. The CRMC favors a healthy, vigorous port industry and intends to provide for needed maintenance and development of its physical facilities. Section 2 presents CRMC policies guiding future port related shoreline development. As the work of its Harbor Estuary and Land Planning Advisory Committee indicates, however, other steps must also be taken to improve port planning and management to insure the viability of Rhode Island's port industry in the decades ahead. The CRMC desires to continue providing assistance in this process. Its policies on port planning are presented in Section 3.

2. THE PHYSICAL DEVELOPMENT OF PROVIDENCE HARBOR

2.1 Boundaries of the Port District

The historical development of Providence Harbor as a port has consisted of a gradual shift of piers and berths southward away from the central business district of Providence. A considerable amount of filling of wetlands and tidal flats has taken place west of the Mosshasuck and Providence Rivers above the Hurricane Barrier. Much of the area known as Field's Point was created by filling portions of the Providence River to provide a permanent location for ships to offload

cargo. The Providence and Worcester Railroad more recently has constructed a large dike on the East Providence side of the Providence River in order to create a new marine terminal for its interstate rail line. Before the mid 1970s, the Seekonk River was still used by fuel barges. The Army Corps of Engineers has subsequently deauthorized the dredged channel leading to the mouth of the Seekonk River.

Until the creation of the Coastal Resources Management Council in 1971, the physical development of the port was controlled by the Board of Harbor Commissioners. In the 1880s harbor lines were established which designated the limit of encroachment to the dredged channel. The line was incorporated into the boundaries of platted water lots owned by various firms and individuals who also owned shorefront property. Firms such as the Mobil Oil Company and the Providence and Worcester Railroad have filled to this line, while other companies have built or maintained piers reaching the channel. The harbor line proved ineffective in controlling the actions of the City of Providence in filling the southern portion of Field's Point. At present, the southernmost edge of the shore at Field's Point is 450 feet beyond the harbor line authorized in 1958. In 1979 the Rhode Island Supreme Court directed the Coastal Resources Management Council to adjust the harbor line to reflect present conditions after it had decided in favor of a plaintiff whose adjacent island had been buried in debris and rubble by the City of Providence.

Since the creation of the CRMC and new rules adopted by the Army Corps of Engineers, the old harbor lines no longer serve a regulatory function. Their historical meaning pertained solely to the prevention of encroachments upon navigational channels. Today state and federal regulations are based on the goal of minimizing environmental impact.

As a result every shoreline construction project is now subject to public review. There remains a need to establish permanent boundaries which constitute reasonable limits on the future filling of the Harbor and which provide for adequate places to dispose of dredged material within the Harbor.

The map in Figure III-1 shows the inland and water limits of the port district. The district includes, first of all existing marine terminals and port service firms dependent on the dredged channel. In addition, underutilized areas where expanded or new marine related development could occur are identified. Finally, potential locations for the disposal of dredged material within the port district are identified. Each of these designations is described in more detail below.

2.2 Existing Port Facilities

Most of the cargo handled in Providence Harbor consists of petroleum products. However, the volume of petroleum entering the port is greatly reduced from levels received in the early 1970s. Non-petroleum cargo, which includes lumber, steel, cement, scrap metal and automobiles has grown significantly during the same period. About 60 percent of the employment in the port industry is related to the 13 percent of cargo which are non-petroleum products. In 1977, the CRMC determined that existing petroleum tank farms contained sufficient storage capacity or acreage to handle the needs of the oil distribution system. This is even more true today, with many oil companies consolidating operations in the New England region, and reducing inventories due to weakened energy demand and higher value of petroleum products. Of potential concern for the future is the possible closure of some oil terminals, with the resulting issues of debris

Map

Port Industry in Providence Harbor

Dredged channels

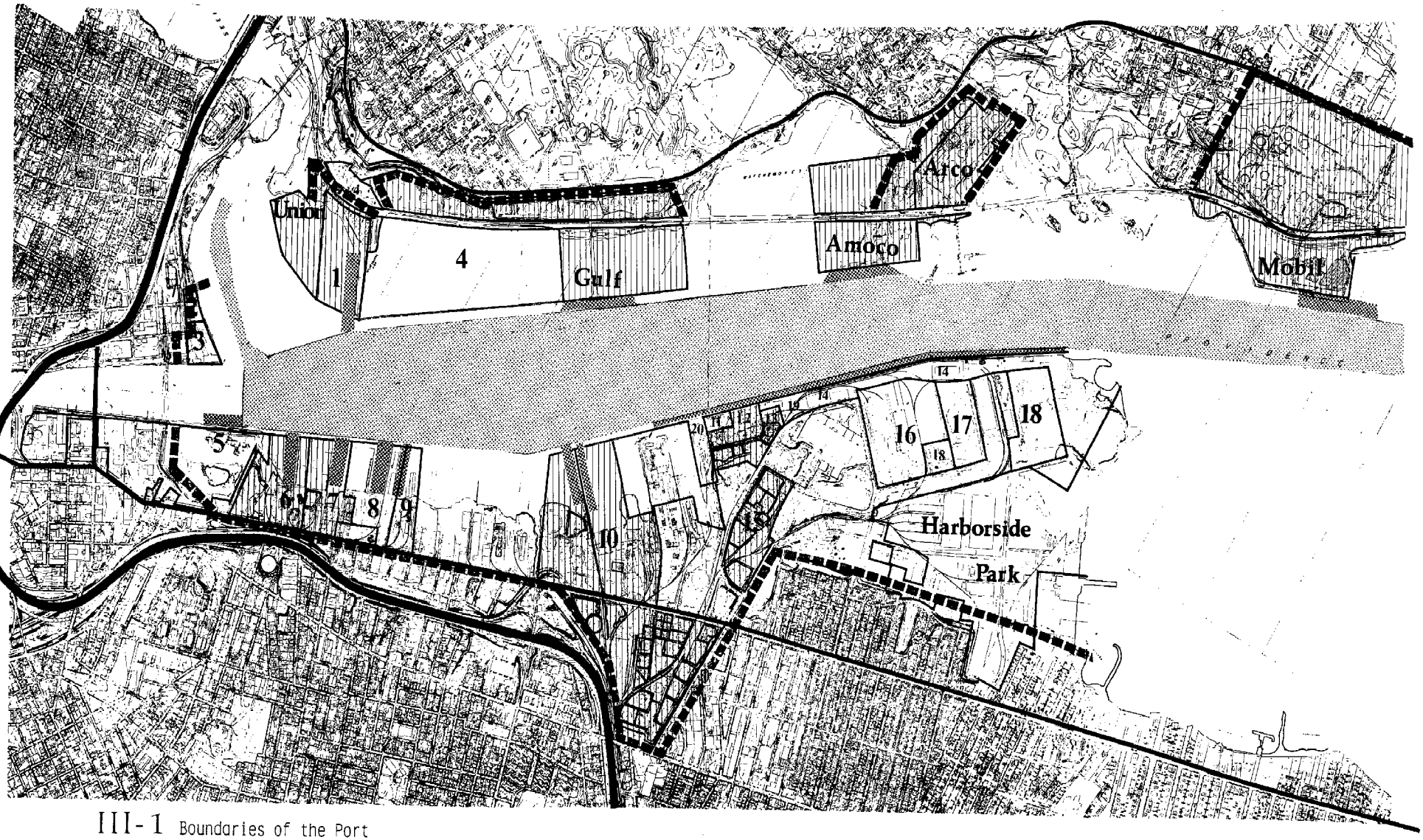
Dredged berths

Petroleum related facilities

Providence Harbor Berth Key:

1. Union Oil, P & W, Getty Oil, N.E. Petroluem (Wilkes barre pier)
2. Lausall Realty
3. Maurania Corp
4. P & W
5. Narragansett Electric
6. Sprague Terminal Corp
7. Northeast Petroleum and others
8. State of RI land and Promet Terminal
9. J.F. Donovan, Inc.
10. Texaco, Inc. and Paragon Oil
11. Lehigh Portland Cement, Operator on City land
12. New England Bituminous Term. Corp.
13. Sun Oil Co., Operator on City land
14. Port of Providence, Municipal Wharf
15. B.P. Oil Co.
16. Metals Processing
17. City Land, Petrolane
18. J.J. Orr
19. Sun Oil Terminal, on City Land
20. Providence Gas Co.

approximate scale:



III-1 Boundaries of the Port District in Providence Harbor

removal and site reuse.

Non-petroleum cargo is handled at the City of Providence Municipal Wharf, with storage and marshalling areas operated nearby on land either leased from the city or privately owned. Additional cargo handling and marine services are provided at the former State pier on Allens Avenue, and in the vicinity of Fox Point. Finally a new facility is being constructed on the East Providence shore by the Providence and Worcester Railroad.

2.3 Dredging Needs

Twenty-three operations were identified in a study of Rhode Island's dredging needs published in 1981. Interviews were completed with nineteen operators, eleven of which expressed a desire to dredge. Only one expected to undertake work in the near future, while two others were in the process of dredging. Approximately 803,000 cubic yards would be removed if all plans were implemented. The largest single project was the construction of a marine terminal by the Providence and Worcester Railroad (P&W), which accounted for 516,000 yards or 65 percent of the total. P&W has already removed 65,000 cubic yards from the Wilkes-Barre pier. The implementation of the major portion of the project is slated for the next 5 years with the dredged material to be placed behind the wharf. Other terminal operators wishing to dredge indicated offshore dumping as the only disposal option available to them. Petroleum terminals such as Mobil Oil already have sufficient on-site capacity.

A future maintenance dredging effort by the Corps of Engineers in the Providence River channel itself would entail an estimated 200,000 cubic yards of material. However, the Corps has no plans to maintain Providence Harbor to its current forty foot depth unless petroleum terminals are dredged first in order to take advantage of it. No plans

exist to dredge the Seekonk River.

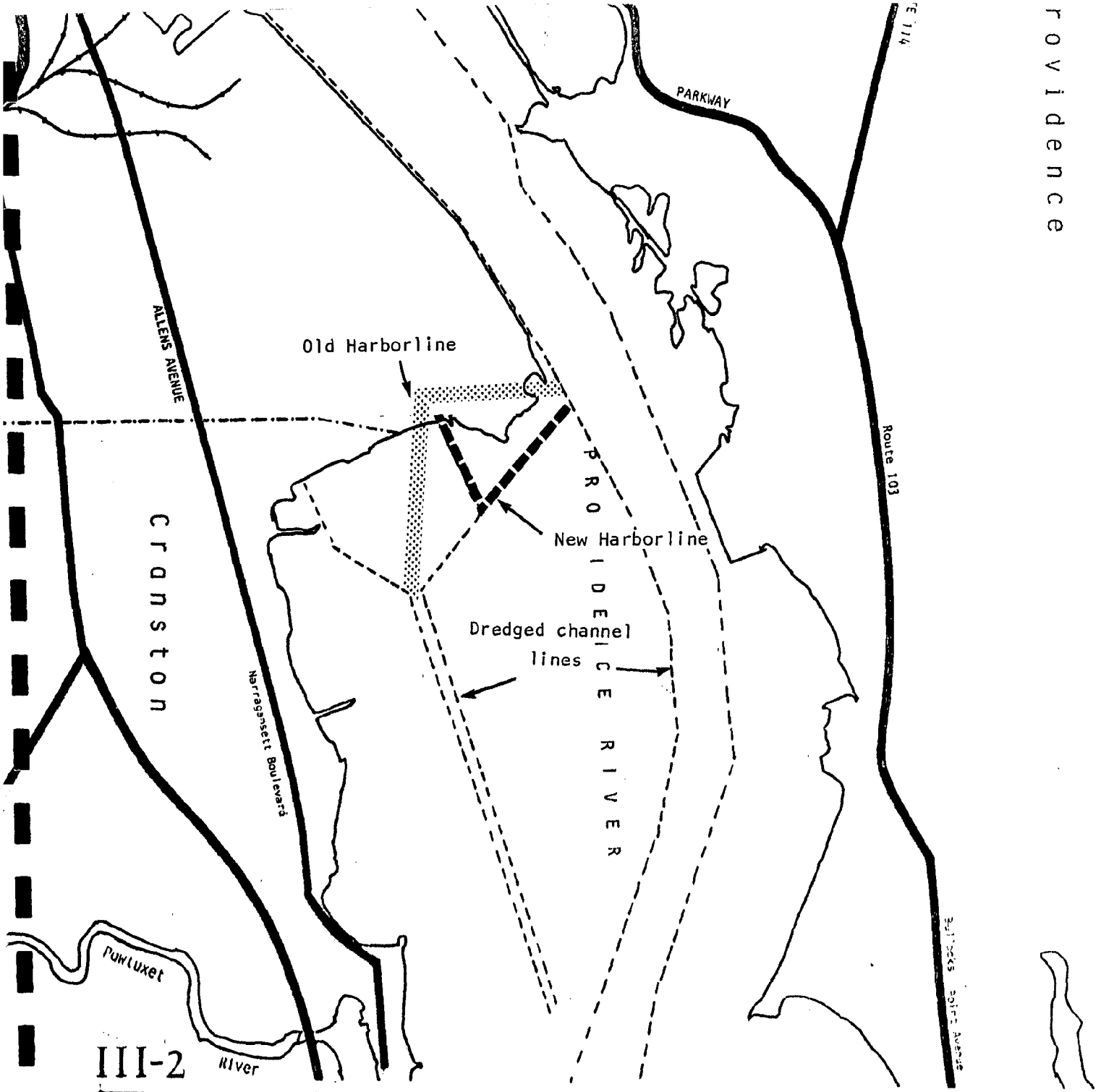
2.4 Areas for Expansion

While non-petroleum cargo has grown from 730,124 tons in fiscal year 1971 to 956,482 tons in FY 1982, existing marine terminals are still considered to be underutilized. The City of Providence Municipal Wharf is considered to be operating at 21 percent of capacity according to a New England River Basins Commission study. The Providence and Worcester Railroad has begun construction of a new wharf along the East Providence shore. Although the Municipal Wharf itself is not working close to capacity, a shortage of open land exists to support cargo handling operations. A similar problem affects the area between the Municipal Wharf and the Narragansett Electric power stations along Allens Avenue. Ownership is divided into a number of small parcels. Old piers which served warehouses or functioned as coaling stations have long since been abandoned, even though a 40 foot deep channel is just 600 hundred feet offshore. New or temporary uses for the property in this area take no advantage from proximity to the Harbor.

2.5 Policy on Providence Harbor Line

In order to remedy the problem caused by illegal encroachment on the 1958 Harbor line, the Coastal Resources Management Council designates a permanent harbor boundary beginning at the southernmost point of the City of Providence Municipal Wharf, continuing to a point 1000 feet south along the channel, then extending in a southwesterly direction to red nun "8" (NOS chart 13224, 1975 edition) which marks the eastern corner of the dredged basin below Fields Point, then continuing in a straight line northward along the edge of the dredged basin, terminating at the shore. The position of the old and new lines are shown in Figure III-2.

providence



III-2

PROVIDENCE HARBOR

CHANGE TO PROVIDENCE HARBOR LINE

Permanent Harborline

Old Harborline

<<< north

0 ¼ ½ 1 miles

Coastal Resources Center 1983

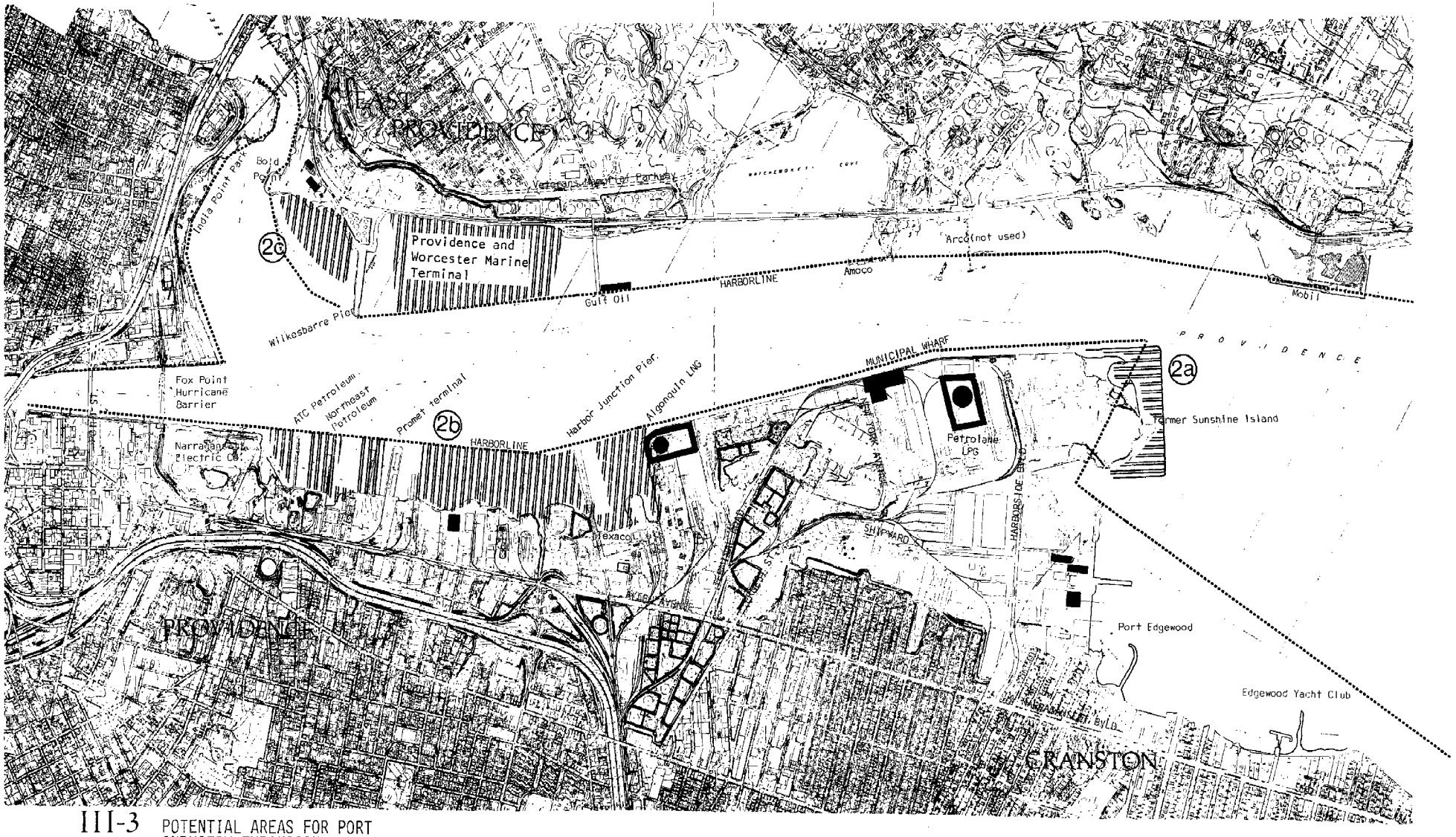
base map: NOS chart 13224

2.6 Policies on Port Expansion in Providence Harbor

The CRMC designates the following areas suitable for expansion, subject to specific criteria for their use:

a. Southern Field's Point: A recommended permanent shoreline for this location would extend 1000 feet to the south of the end of the Municipal Wharf along the dredged channel as shown in Figure III-3. The southern boundary would extend from this point to the west approximately 950 feet touching the exposed tip of the former Sunshine Island, and then proceeding an additional 500 feet west intersecting the harbor line at the edge of the dredged basin. The western boundary will be a line perpendicular to the southern boundary line along the basin and then intersecting the shore to the north. The two triangles of water within the boundary could provide about 15 acres of new land. Several limitations may be imposed on any proposal to construct permanent land out to this boundary.

1. Priority for the site will be for the purpose of loading, unloading or temporarily storing goods shipped or received at the municipal wharf, or at a wharf constructed along the eastern edge of the property. Facilities for handling, storing or shipping of any fuel, including petroleum, coal or gas (LPG, LNG) will be given low priority.
2. The project should be carried out in a limited number of construction phases, preferably one for completing the eastern triangle, and the other for completing the western triangle.
3. The new shore will be of permanent construction such as steel or concrete sheeting, or rock riprap, resistant to erosion and storm wave action, and will minimize the impacts of wave refraction on shorefront property.



III-3 POTENTIAL AREAS FOR PORT INDUSTRY EXPANSION

2a Fields Point

2b Allens Avenue

2c Bold Point (dredged material containment potential)

4. Fill materials will consist of clean, stable rocks and gravel, with no solid waste in order to make the land suitable for a variety of uses related to (1) above.

5. Full consideration must be given by the site developer at the time of proposed construction to the use of a portion of the site for the disposal of dredged material from the Municipal Wharf beneath clean fill.

b. Allens Avenue: This area stretches from Sassafras Point north to Fox Point between the Providence Gas Company facilities on the south, and the Narragansett Electric Company's power stations to the north. Texaco, Promet, Northeast Petroleum and Sprague Oil still actively use their piers and berths. The remaining waterfront facilities are unutilized and deteriorated. A variety of uses occupy some of the remaining shorefront parcels, including a chemical company, telephone company vehicle storage and warehousing, none of which make special use of their waterfront location. This area is appropriate not only for facilities directly related to marine transportation but other commercial developments providing public access to the water such as marinas and associated restaurants and marine services as well as high density residential structures. Over the long term, full use should be made of both the land and water out to the harbor channel. Unfortunately, the numerous small independently owned shore and water lots will make the achievement of best uses for the Allens Avenue waterfront difficult. This fact in turn poses a major problem for the CRMC since each property owner may propose new developments which are incompatible or less efficient in site utilization than would be possible and desirable if a comprehensive redevelopment plan was in place. The following recommendations are made to remedy these

problems:

1. The City of Providence is strongly encouraged to complete the study of the Allens Avenue waterfront commercial district which it began in 1976, preparing a redevelopment plan for the entire area east of Interstate 95. The CRMC desires to participate and assist in this process. Major issues which need to be addressed are the reuse and possible consolidation of shorefront parcels, the condition of Allens Avenue itself, the future utilization of parcels between I-95 and Allens Avenue and the relationship between the Allens Avenue district and its downtown redevelopment efforts, the Municipal Wharf and the Washington Park neighborhood.

2. As the pollution control program of the Narragansett Bay Commission proceeds, a major issue of concern must be addressed, which is the identification of a site for constructing combined sewage overflow treatment facilities. It is likely that a major facility will be required to treat combined sewage flows from the downtown and South Providence areas, and that the Allens Avenue district will be a logical candidate to accommodate such a facility. As sewer system planning studies are completed, the Bay Commission, Coastal Resources Management Council and the City of Providence must be prepared to work together to insure that a suitable location will be available.

3. Future plans for upgrading the I-95 Interchange serving the Allens Avenue district, as well as rail and local roads should be clarified through discussions between the city and state, since these will also have an effect in the availability of developable land as well as the prospect for improved access to the district.

4. The following criteria will be used by the Coastal Resources

Management Council in considering applications in the Allens Avenue district:

(a) The CRMC encourages the development of facilities and operations which require or make direct use of the Harbor channel for maritime commerce or recreation. It gives low priority to proposals which will preclude future access to the waterfront for marine commerce or public purposes.

(b) The CRMC is committed to assuring that existing terminals will be able to maintain berths at required depths through maintenance dredging, and desires that full economic use be made of the 40 foot channel serving the Harbor.

(c) The CRMC will consider proposals for limited carefully planned filling in the water area between the shore and the channel for projects subject to the following additional considerations:

(1) The proposed construction should be directly related to the physical conduct of waterborne commerce, recreational boating, service to docked vessels or public access to the water view.

(2) Low priority is given to the use of filled water for the storage of liquid or liquified fuels on filled land, the handling or storage of scrap metal or solid waste.

(3) The project should not interfere with the successful marine related usage of adjacent parcels or conflict with any waterfront district plan.

c. Bold Point: This vacant parcel is at the mouth of the Seekonk River, just north of Wilkes-Barre pier and is owned by the City of East Providence. It presently is the location of an unpaved boat launching ramp. Platted water lots to the west in the Providence River are owned

by the Union Oil Company. The shallow waters off Bold Point are the site of a major concentration of debris, including wrecked barges, and a dilapidated pier which was part of an old coaling station. The City of East Providence hopes to develop recreational uses for Bold Point. The area is to the west of the rail line owned by the Providence and Worcester Railroad, which plans to develop a marine terminal just below Wilkes-Barre pier. A proposed highway connecting the terminal to Pawtucket is currently being studied.

The shore and debris strewn shallow waters off Bold Point offer an opportunity to provide an in-harbor dredged material disposal site which could be used to expand the acreage available for recreational purposes through the creation of a stable containment structure that would be filled, covered with clean material and then landscaped. In addition to supplying a needed disposal site, much of the debris off Bold Point, which constitutes a navigation hazard as well as visual blight would be covered if the entire shallow area were utilized.

Several steps must be taken before a serious proposal to develop a material containment project can be prepared. The first is to conduct a preliminary feasibility assessment and cost estimate. It is likely that containment will be more expensive than traditional open water disposal. Project sponsors who will use the site must coordinate dredging, obtain the necessary permits, and pay disposal costs including those needed to bring the area into compliance with the requirements listed below. The CRMC will assist in coordinating the application process, however, the major impetus for such a proposal must come from project sponsors.

The following additional considerations will be incorporated into the review of any proposal to establish a dredged material disposal site at Bold Point:

1. The proposal must be of sufficient size to insure the construction of a new stable shoreline which does not encroach upon the Harbor beyond the area shown in Figure III-2. If more than a one time use is proposed for the site, the design of the containment structure should permit the successful establishment of temporary landscaping.

2. The final grading and landscaping plan should not impose hardships on the abutting land owner, the City of East Providence and other nearby parcel owners. The land should only be used for public open space or recreation.

The CRMC encourages the City of East Providence and the Department of Environmental Management to work together to develop the recreational boating potential of Bold Point, including the construction of a permanent boat launching ramp.

3. PORT PLANNING AND MANAGEMENT

3.1 Problems Facing the Port Industry

In order to make sound judgments about whether further physical development of port facilities is necessary, and to insure that the needs of the industry continue to be met, the CRMC would benefit greatly from clear policy guidance on the state's interests and goals for marine transportation and port development. Municipal and state initiatives to solve the problems facing the port industry, accompanied by a greater level of involvement by industry members, are essential for the establishment of a development pattern which efficiently and permanently utilizes the urban waterfront.

Several major problems affect the ability of the industry in both Providence Harbor and Narragansett Bay to successfully deal with the challenges of coastal and international shipping in the next two

decades.

(a) The role of the port industry in Providence Harbor must be decided in the context of other much larger east coast and Canadian ports for the period 1982-2000. Which commodities will be handled, what facilities are needed, and how must port business to be conducted in order for the port to become competitive? What is the relationship between the Municipal Wharf, the P&W facility in East Providence, and marine facilities in Narragansett Bay owned by the Rhode Island Port Authority?

(b) Performance assessments are needed for the Municipal Wharf. The productivity of berths, the degree of user satisfaction, the best utilization of terminal buildings, and methods to enhance revenue generation are important pieces of information about the terminal operations which are presently not available.

(c) Capital investment decisions in the port need to be accompanied by careful revenue projections and benefit analyses. Many east coast ports are witnessing massive investments in port facilities which often involve public funds. In some cases, these ventures are highly speculative in nature, rather than responses to well documented demands for new terminal capacity.

(d) Marketing of port services needs to be greatly improved. This does not mean simply better public relations, but undertaking careful assessments of markets and clients to define the size of the total market, the fit between port facilities and market needs, forecasting shipping trends and technology, and fostering trade development.

(e) Improvements to port operations are required, including dredging, rail service and quay maintenance.

(f) Area planning is required for the City owned Field's Point land,

which surrounds the Municipal Wharf, as well as Providence Harbor and Narragansett Bay port facilities, to insure that most efficient and effective use is made of scarce waterfront land adjacent to marine terminals.

(g) Supporting services and infrastructure need to be upgraded, including state transportation planning for intermodal freight handling, highway access to port facilities, maintenance, security and fire protection. A voice for port interests is required on matters of federal policy which could enhance or hurt the industry locally.

(h) Financing of facility improvements at the Municipal Wharf has not been difficult until recently. About $14 million has been spent in the past decade on various construction and maintenance projects. However, with revenues unable to match total costs, new expenditures are likely to be more difficult to make. Other port facility projects also will require additional capital which may not be available given high interest rates, and the present slump in international shipping. It appears that the Municipal Wharf will require an operating subsidy from Providence for the next several years, until revenues can increase again through marketing and service improvements which will lead to increased traffic.

(i) The decision making structure affecting the operation and expansion of port facilities throughout Narragansett Bay with respect to non-petroleum cargo is characterized by uncertainty and awkwardness. In 1983 the Municipal Wharf will for the first time be operated by a Port Commission, created under the Providence home rule charter, which will increase the stature of the port facility within the city government. However, this will still not provide the industry with an autonomous, self-financed enterprise comparable to the port authorities which

operate terminals in many of the major U.S. ports. In addition, there is at present no organization which is charged with planning for and managing the port industry as a whole in Providence Harbor.

3.2 Recommendations

(a) The Coastal Resources Management Council strongly encourages state and municipal government agencies to form a working association with the port industry to address port problems on a continuing basis.

(b) The CRMC believes that the Rhode Island Port Authority can serve a key role in helping to "foster and improve the handling of waterborne commerce from and to any port of this state and other states and foreign countries" as its enabling legislation empowers it to do (GLRI 42-64-2 (g)).

(c) The following list of progressively comprehensive steps should be pursued in the development of a new approach to port planning and management in Rhode Island:

(1) establish a trade association or advisory committee composed of state officials, port industry members and community representatives to begin a continuing process of discussion of Providence Harbor's port development issues.

(2) provide grants-in-aid for studies and actions to improve the performance of publicy owned port facilities based on overall goals for state port development.

(3) commission a comprehensive technical and economic analysis of port industry prospects and needs in Narragansett Bay for the year 2000.

(4) establish alternative facility management arrangements for publicly owned marine terminals, such as leasing to private firms or Rhode Island Port Authority

management of municipal berths.

(5) institute full harborwide facility management by a comprehensive governing body such as the Rhode Island Port Authority.

(d) The Coastal Resources Management Council pledges to support and assist efforts by municipal or state government, or the industry itself to improve the quality of port planning, operation and management decisions, and desires to participate in efforts to that end.

IV.
water quality

IV. Improving Water Quality

1. INTRODUCTION

The waters of Providence Harbor receives the discharges of homes, business, industry and storm runoff in a 2160 km^2 drainage basin inhabited by one million people. Pollution problems have plagued the Harbor and its tributaries since the early days of industrialization and the growth of the metropolitan area during the nineteenth century. During this century, primary and secondary sewage treatment facilities were built to provide settling and biological removal of pollutants, along with disinfection of discharges. The Field's Point Treatment first began treating waste in 1901, followed by the East Providence Plant in 1951 and the Bucklin Point Plant in 1952.

The present framework for state and federal pollution control programs was established by the federal Clean Water Act of 1972. The Act consolidated and expanded previous pollution control laws, and set national goals for clean water. The National Pollution Discharge Elimination System (NPDES) was established to identify and control all point dischargers to receiving waters. Discharge standards based on available and affordable technology were to be established nationwide for each industry group. Publicly owned treatment works were required to achieve a level of secondary treatment based on the effluent standard of not more than 30 milligrams per liter (mg/l) for either total suspended solids or five-day biological oxygen demand. States were required to engage in comprehensive pollution control planning, including area-wide Section 208 plans (a statewide plan for control of

point and non-point sources), Section 303e river basin plans for each major watershed and Section 201 sewage facility plans for each municipal district where construction grants were sought. All of the water bodies of the state were classified according to existing and desired conditions. These standards, which include a listing of suitable uses and descriptions of water quality are used in determining whether the discharge limitations set for each NPDES permit holder are tough enough to achieve the state's clean water goals. In addition, the state uses its water classification scheme to evaluate other actions with the likelihood of affecting water quality, such as a new marina or a dredging project.

Achieving improvements to water quality will be an important part of the revitalization of Providence Harbor, especially for enhancing outdoor recreation, residential and commercial uses catering to the general public. Two important unanawered questions must be addressed. How much improvement will take place under existing pollution control plans and programs? Will these scheduled improvements be sufficient to support desired uses of the water and shore of Providence Harbor and Upper Narragansett Bay?

2. AN APPROACH TO POLLUTION ABATEMENT IN PROVIDENCE HARBOR

In order to be assured that water quality in Providence Harbor and Upper Narragansett Bay is adequate for its designated uses, pollutant discharges should be regulated on the basis of their impact on the estuarine ecosystem. This will require changes to the present national approach to pollution control which emphasizes a practical, technology based on approach. In addition, water quality standards must be adopted which incorporate criteria specific to local conditions. At present such criteria are based on values derived from national laboratory

studies. A comparison of regulatory criteria with actual pollution conditions leads logically to the allocation of pollutant discharge abatement responsibilities among point and nonpoint discharge sources. Effluent discharge standards should be set in terms of this allocation of responsibility. The progress of dischargers in meeting these estuarine based standards, and the success of the entire pollution control program should be carefully monitored.

The implementation of this approach requires a considerable amount of information about the relative importance of various pollutants in causing measurable stress or mortality among important organisms in the estuary. It also requires knowledge about how pollutants behave in the estuary after they are discharged. Finally, it requires good information about all the sources of pollutants, so that load allocations can be made, and realistic assessments of the benefits of the total pollution abatement program on the estuary can be prepared. The CRMC finds that while considerable progress has been made toward these ends in recent years, much remains to be done to insure that pollution abatement programs are optimally designed to achieve the necessary improvements in water quality. The existing federal pollution control effort has permitted but not encouraged states to undertake the challenge of developing water quality criteria specific to individual receiving water bodies. The absence of adequate scientific knowledge of ecosystem conditions and pollutant sources, fates and effects has made the task formidable.

3. PROPOSED CHANGES IN THE FEDERAL POLLUTION CONTROL PROGRAM

Important changes to the planning, management, and regulatory procedures which states use in polluted areas such as Providence Harbor are embodied in rule changes proposed by the Environmental Protection

Agency in 1982. A mechanism is proposed for reviewing water quality standards prior to the setting of effluent limits for dischargers which are more stringent than those attained through technology based effluent controls. States are encouraged to prioritize receiving waters and devote most of their attention and financial resources to those in the worst condition. However, before EPA will disburse funds, states must go through the process of reviewing their water quality standards in those polluted areas. This procedure is designed to answer the questions, "are designated uses being attained?" and "are they attainable?" If they are not attainable, states must revise their standards. This will in turn affect how stringent states can be in requiring public and private dischargers to reduce pollutant loadings.

3.1 The Continuing Planning Process

The state must maintain a continuing effort to update and amend its plans for controlling pollution. Emphasis is placed in the new rules on water quality standards, which are composed of designated uses and the water quality criteria required to support those uses. A water quality management program is undertaken to achieve those standards throughout the state. The proposed rules emphasize the following elements:

a. water quality limited segments (places where technology based effluent limits are inadequate).

b. total maximum daily loads (the largest loading of pollutants the water body can be assimilated without changing a use).

c. waste load allocations (allocating pollutant loads to individual pollutant sources to aid in assessment of standards violations).

d. effluent limits (the largest amount of pollutants which a discharger can legally put into the water body).

A full range of pollutant sources must be considered, including municipal, industrial, nonpoint (storm runoff), land fills and dredge/fill operations. This water quality management program must be continually updated to include new information about pollution problems, changes in financial resources, technology, and water quality standards. Emphasis must be placed during the next few years on identifying and reviewing priority water quality limited segments if states wish to continue to be eligible for federal funds.

3.3 Water Quality Standards

The process for setting and revising water quality standards is being used in the proposed rules to get states to carefully examine whether present plans for controlling pollution in the most polluted areas are reasonable. Beginning with their worst water quality limited rivers and tidal waters, states must examine available data about the water body, collect more if necessary and determine whether the currently designated uses are in fact being met. If they are now being achieved, the water quality which exists in that segment should be considered adequate, even if it is somewhat lower than existing state rules would permit. Therefore, states should revise their criteria for that water body, and so avoid the need to undertake extraordinary measures for pollution control. If uses are not being met, the state must then examine whether they would ever be attainable. If there are physical impediments, natural background pollution, no prospects for non-point source control, or if the benefits of cleanup are not comparable to costs, then states should redetermine what the attainable uses are for the water body, and revise their wate quality standards accordingly. Any change in water quality standards will influence the extent to which private and public organizations can be required to cut

back on pollutant discharges. It is entirely possible that no change will be made in the water quality standards of a water body if a designated use is attainable. In that case, the state proceeds directly to determine the maximum load, allocate that load to dischargers, and set effluent limits for each facility.

3.4 Revising Water Quality Standards

The proposed framework provides states with some important challenges and new responsibilities for protecting their waters. At a minimum, states must review their water quality standards for priority water quality limited segments where they are seeking federal funds for the construction of publicly owned treatment works. These segments are likely to have concentrations of industrial point dischargers as well. The review process consists of several steps beginning with an assessment of the condition of the water body, followed by an analysis of whether designated uses are being met, consideration of physical and pollution related factors preventing the uses from occurring, and a determination of what the attainable uses for the water body actually are in cases where it is not feasible to pursue the designated use.

a. Water bodies with advanced treatment, combined sewer overflows, major permit revisions, and presence of toxics are among those which should be given priority for undergoing the review process.

b. Existing (and new information where necessary) should be used to characterize the water body, identify present uses and assess its biological integrity. If designated uses are being met, consideration should be given to making site-specific revisions to the water quality standards "to avoid overly restrictive regulatory requirements on dischargers and the construction of unneeded and costly advanced treatment facilities."

c. Two reasons are possible for the failure to attain a designated use. Physical conditions might preclude a use, regardless of the presence of good water quality. If this is the problem in a water body, states are urged to proceed to determine the actual attainable use and adopt appropriate criteria for that use. When pollution is the limiting factor for uses, the state should use knowledge obtained in its water body assessment, along with guidance on setting water quality standards published by EPA, to develop site-specific water quality criteria for supporting the designated use. This is done to account for unique local circumstances affecting the bioavailability of pollutants to organisms, and the fact that local species may tolerate pollutants at levels different from those specified in the federal water quality criteria.

Water quality criteria for the specific water body under consideration are then prepared and compared to existing conditions. The difference between the allowable daily load and the existing load is computed and allocated among the sources of pollution in the drainage basin feeding the segment. Consideration must then be given to whether adequate non-point source controls are available. Finally, a benefit-cost assessment is performed to determine whether the expenditures to clean up the water to a level which would allow the designated use bear a reasonable relationship to the benefits which would ensure. If the answer is yes, that the expenditure is justifiable, the state may proceed directly to setting effluent limits and writing permits.

d. If background pollution, the lack of non-point source controls, an unacceptable benefit-cost ratio, or physical limitations make achieving the designated use unlikely, then the state should determine the attainable use, and revise its use designations and water quality

criteria to support the uses which are possible and desirable in the water body.

3.5 Regulatory Actions

The analysis of pollutant and resource relationships in water bodies of concern is one of the first crucial steps in the water quality standards review process. The information gained provides a solid basis for limiting pollutant discharges through the NPDES permit process. An understanding of pollutant cause and effect relationships for various life stages, ambient ranges of pollutants, and testing conditions (field, laboratory, and microcosm environments) can be gained through the standards review process. This information will enable states to reevaluate and fine tune the existing EPA guidelines for setting water quality criteria, which were not originally designed to be site-specific. The new regulations encourage a transition from the existing state water quality standards scheme, which considers water uses, to an holistic approach, which describes water quality objectives from an environmental perspective. Unless the new site-specific information gained through the exercise of environmental characterization and criteria setting is incorporated into the regulatory framework, steady progress cannot be made in pollution control.

4. THE DEVELOPMENT OF WATER QUALITY STANDARDS FOR PROVIDENCE HARBOR

The first step in the pursuit of protecting and improving estuarine water quality in Providence Harbor is the establishment of use goals for specific areas in terms of habitat, harvesting, human contact and waste disposal. Numerical and qualitative criteria serve to define the minimal allowable conditions for supporting their uses. Requirements for the reduction of discharges at specific industrial facilities and

public treatment works are developed based on the difference between current conditions and adopted criteria. However, setting use goals is also a crucial last step in the water quality improvement planning process. It would be unwise to adopt a classification scheme whose achievement was far beyond our financial means, which could not be achieved due to the natural characteristics and function of the estuary or which ignored the capability of the marine ecosystem to assimilate a certain proportion of the wastes of a large human population and associated industrial activity. The final designation of goals for specific areas must be grounded in these realistic considerations. Otherwise, the designations will lose their purpose in guiding practical decisions.

The following policies will be followed by the Coastal Resources Management Council as the basis of its participation in helping the state to develop and implement a pollution abatement strategy in Providence Harbor.

4.1 Participation in the Pollution Abatement Planning Process

During 1983 and 1984, the Department of Environmental Management, DEM, and the Statewide Planning Program, SPP, will be undertaking the preparation of a 303e basin plan for pollution abatement in Narragansett Bay. This effort will include the assessment of water quality conditions, examination of the attainablity of uses, review of water quality standards (including use designations and criteria) identification of pollution sources, establishment of maximum allowable pollutant loadings, allocations of waste loads, and revision of discharge permits.

As Rhode Island's primary agency for planning and management in the coastal region, the CRMC will assist DEM and SPP by developing water and

shore use designations for Providence Harbor and other tidal waters. These designations will be an important basis for the Narragansett Bay basin planning process. The CRMC believes that it is premature to propose use designations at present, pending the outcome of:

a. The state's basin planning program in the Pawtuxet River, which will determine in part the format and content of the Narragansett Bay plan.

b. Research and data synthesis efforts on Providence Harbor presently ongoing at the University of Rhode Island and its Graduate School of Oceanography, which are directed specifically at the task of defining estuarine pollution problems and abatement priorities. Much of this work will be available within the time frame of the basin planning effort.

c. Final adoption of federal pollution control rules and requirements which will establish the details of the continued implementation of the Clean Water Act.

4.2 Information Requirements for Pollution Abatement Programs

A sound water quality improvement program must focus on the most important sources and forms of pollution. Although it is generally understood that pollutants are transported through a number of pathways, including point non-point and river discharges, we presently lack enough information to decide which sources and pollutants are to blame for which problems, and to state with certainty what a realistic pollution abatement program can hope to do about them. The primary responsibility for the measurement of point discharges rests with the facility operator. Combined sewer overflows should also be measured, but this is a more difficult procedure. Finally, storm water runoff and river inputs must be computed as part of a local or state planning process.

The 208 Areawide water quality plan adopted by the state was an early attempt to do this. The first step must be to compile what is presently known about sources in a way which links these pollution loadings to the conditions in the estuary. Without this linkage, there is no way to assure that abatement requirements are either strong enough or needlessly restrictive. There will also be no way to measure progress in terms of concentration reductions in the estuary.

It is an accident of history that Rhode Island's metropolitan area grew at the head of Narragansett Bay. The Seekonk and Providence Rivers naturally retain pollutants compared to the strong flushing effect of the open ocean at the mouth of the Bay. The only objective way to define pollution problems and to measure progress in pollution control is to measure parameters in the environment over time. These measurements must be done with an understanding of the physical behavior of the upper estuary in mixing and distributing inputs of polluting materials. Available data clearly points to discharges in the Seekonk and Providence Rivers as the source of pollution to the entire Bay. Measurements also show the presence of low oxygen conditions during certain times of the year, and elevated levels of metals and petroleum hydrocarbons. Measurements have not yet been made of some important metals and organic compounds, although they too may exist in undesirable concentrations.

a. The CRMC believes that adequate financial support must be provided to the Department of Environmental Management to carry out a long-term program of monitoring estuary conditions for pollution parameters. Data collection has until now occurred on an irregular basis, leaving the state with a less than adequate data base for decision making and mesuring progress or failure in pollution control.

The new federal rules impose much greater requirements for information on how pollution control actions will contribute to maintaining or enhancing water quality conditions.

b. The CRMC strongly urges public agencies, academic community, regulated dischargers and interested members of public work together to develop a research agenda for addressing concerns about pollution, its effects on uses and the estuary, and prediction of the impact of alternative pollution abatement strategies.

V.
action

V. Achieving Revitalization Goals

1. THE NEED FOR ACTION

The potential of Providence Harbor for providing social,economic and environmental benefits and amenities to the residents of the Providence metropolitan area lies partially hidden beneath shoreline debris and unattractive industrial facilities. Yet great potential exists in inacessible open spaces and unused but polluted waterways. It is clear that economic and population changes since World War II have removed much of the impetus which financial investment and public attraction can provide to sustain an urban area. In the 1970's the attention of many Rhode Island developers, citizens and public officials shifted to waging a complex, protracted struggle over the fate of beautiful,natural,undeveloped portions of the coastal zone. On one point all could agree: the mistakes of Providence Harbor must not be repeated.

The process of urban decay at the water's edge is familiar to many older metropolitan areas. New uses are slow to replace obsolete ones when a region's growth and economic base change. Increasingly accessible,attractive residential areas on the fringes of a metropolis entice people and employers to leave crowded, unpleasant, decaying areas. This process has been aided by government policies such as highway construction ,mortgage subsidies, school and sewer construction grants and to differences in tax burdens which made suburban and rural development cheap and urban living expensive. The questions which must be faced now are why it is important to care about the urban waterfront

and its demise, and how can steps be taken to set things right? Strong motivation and effective methods are essential ingredients for achieving desired change in the condition of the waterfront.

The most important reason for placing an emphasis on urban waterfront revitalization is that the quality of life of the majority of metropolitan residents will depend increasingly on the condition of the urban environment. A century ago, most people were not financially well off or mobile, and possessed a greater interest in and appreciation for local geography. The contemporary life style of many families consists of discrete activities occuring at a variety of disconnected locations linked by highways. The value of a given location can be transitory,changing to another use or becoming abandoned in a short period of time. Long time residents of a particular neighborhood may share common values and experiences which give a specific location a special meaning and significance. However, a new development in a location can cause a dramatic change. Geographic mobility can rapidly change the identity of families in an area quickly.

Recent changes in the national economy are affecting the ability of families to afford to live a highly mobile life style which exhibits little interest in remaining in a single neighborhood and cultivating a sense of well being in a single place. High nationwide unemployment, high mortgage interest rates,poor local real estate markets and inertia among all but the most upwardly mobile age groups will increase the number of people interested in improving the condition of their neighborhoods and expanding their participation in local recreational resources. The social benefits of a public effort to revitalize Providence Harbor will be very large under these circumstances, and at the same time more feasible.

The manner in which to proceed is at once simple and complex. In the 1980's, in Providence Harbor, grand physical development schemes which emulate other cities' successes are not likely to be taken seriously. Much more difficult than inventing ways to dramatically spend large amounts of non-existant cash is the task of developing a program which gradually, through a series of coordinated small steps by many actors, creates the conditions which will attract both political support for financing needed public facilities and private investment in the future of Providence Harbor. The Coastal Resources Management Council, whose own financial resources have been severely reduced, is deeply committed to playing a leading role in focusing attention on Providence Harbor, and utilizing its full authority to eliminate the symptoms of decay and to shape the course of future development in a direction which will increase the Harbor's contribution to the well being of metropolitan residents.

2. THE ORGANIZATIONAL FRAMEWORK FOR IMPLEMENTING THE SPECIAL AREA PLAN

The Coastal Resources Management Council will establish a permanent subcommittee on Urban Ports and Harbors to implement the policies and regulations in this special area plan. This subcommittee will report to the full CRMC membership on a regular basis on how it is discharging the following responsibilities:

2.1 Review of Permits

The subcommittee on Urban Ports and Harbors will review and submit recommendations to the full Council on every Category B application originating in the area covered by this plan. Category B applications are those which require a full Council review and decision, as well as those requiring a public hearing. The subcommittee's members will hold public hearings in contested or controversial cases. In addition to

implementing the rules embodied in the coastal program document, the subcommittee will review each Category B application for its conformance to the special area plan and its contribution to CRMC goals for Providence Harbor.

2.2 Implementation of Non-regulatory policies

The subcommittee on Urban Ports and Harbors will be responsible for the equally important task of implementing the non-regulatory policies in the special area plan. These include:

a.Providing early comment and review of development plans and proposals of public agencies and private parties.

b. Establishing regular communication with and acting to coordinate all state and municipal agencies engaged in activites or with a responsibility for taking steps toward the acheivement of the goals and policies of the special area plan.

c. Increasing public awareness of the problems and oportunities of Providnece Harbor and support for state and local redevelopment initiatives through educational programs, information releases,press coverage and special activities.

d. Assist in the development of a comprehensive pollution abatement program.

e. Oversee the implementation of the debris removal program in conjunction with the Department of Environmental Management.

f. Prepare a comprehensive dredged material disposal plan.

g. Work toward the improvement of public access and outdoor recreation facilities.

2.3 A Permanent Public Advisory Committee

The subcommittee will establish and maintain a permanent public advisory committee to participate in implementing special area plan

policies,continuing the work of the Harbor Estuary and Land Planning Advisory Committee which was a key participant in the development of this special area plan. The membership of this group should be broadly based, including representation of each municipality, private citizens,port and waterfront business interests,resource oriented interest and user groups, and state and quasi-governmental agencies. The membership of the advisory group will meet jointly with the subcomittee on a regular basis.

2.4 Staff Support

Where appropriate the subcommittee will secure funds to support the activities of professional and clerical staff needed to carry out its activities as well as those of the permanent advisory committee.

3. COORDINATION AND CONSULTATION WITH GOVERNMENT AGENCIES

3.1 State Agencies

The subcommittee on Urban Ports and Harbors will actively participate in the state's formal process of reviewing federal assistance action proposals managed by the Office of State Planning and other existing coordination mechanisms for state actions affecting the Harbor and Upper Bay, such as transportation,water pollution control, recreation, economic and community development plans. Wherever appropriate, the subcommittee will request and review copies of plans,proposed rules and projects to be the subject of public hearings or workshops. The subcommittee will cosponsor with the Governor's Office quarterly meetings of the executive officers of key departments and agencies to discuss CRMC and state government activities affecting Providence Harbor.

3.2 Municipal Agencies

The subcommittee will request municipal decision making bodies to keep it informed of important municipal actions and decisions affecting Providence Harbor. The subcommittee will request notification of public meetings and other opportunities to comment on revisions to plans or new proposals, including subdivisions of land and redevelopment projects. The subcommittee will meet on a quarterly basis with municipal officials to discuss the special area plan,encourage municipal initiatives for Harbor revitalization, express CRMC views and concerns and explore ways to resolve important issues and problems affecting communities.

3.3 Federal Agencies

The Committee will identify and meet semi-annually with the major federal agencies involved in developing and regulating activities in port and harbor areas. These will include the Environmental Protection Agency, the Navy, the Army Corps of Engineers,Coast Guard,Department of Interior, Department of Commerce and Department of Transportation.

appendix

Additional Information

The Providence Harbor Special Area Plan is the outcome of a three-year effort by the Rhode Island Coastal Resources Management Program. The following technical reports and documents provide the factual basis for the findings and policies included in this report. Most of these reports have been reproduced only in limited numbers. Single copies may be obtained by contacting the:

Coastal Resources Management Council
60 Davis Street
Providence, RI 02903
277-2476

Coastal Resources Center
Graduate School of Oceanography
University of Rhode Island
Narragansett, RI 02882
792-6224

General

UPPER NARRAGANSETT BAY: AN URBAN ESTUARY IN TRANSITION. 1980. D. Robadue and V. Lee. Coastal Resources Center. 137 pp. Introduces the problems of the Providence metropolitan area's waterfront.

A SPECIAL AREA PLAN FOR PROVIDENCE HARBOR. Briefing...32. 1982. Rhode Island Coastal Resources Management Council. 4 pp. An introduction to the special Providence Harbor planning project.

REPORT OF THE WORKING GROUPS OF THE HARBOR ESTUARY AND LAND PLANNING ADVISORY COMMITTEE TO THE COASTAL RESOURCES MANAGEMENT COUNCIL. April 28, 1982. 11 pp. Summary of recommendations of the HELP Advisory Committee.

Port Industry

THE PORT INDUSTRY IN PROVIDENCE HARBOR. 1982. D. Robadue, R. McKillop, D. Molzan. Coastal Resources Center. 60 pp. Survey of the port industry, including economic impact, cargo trends, and financial condition of the Municipal Wharf.

RHODE ISLAND DREDGING NEEDS SURVEY, 1980-1985. 1981. Coastal Resources Center. 40 pp. Identifies the need for maintenance and development dredging at 200 marine facilities in Rhode Island.

ORGANIZATIONAL REMEDIES TO PORT INDUSTRY PROBLEMS IN PROVIDENCE HARBOR. April, 1982. 10 pp. The Port Industry Working Group paper on options for improving port planning and management.

Debris Removal

DEBRIS REMOVAL IN UPPER NARRAGANSETT BAY. Coastal Resources Center. Compilation of data on deteriorated structures, debris owners and removal plans.

Water Quality

PLANNING FOR WATER QUALITY IMPROVEMENTS IN UPPER NARRAGANSETT BAY AND ITS TRIBUTARIES. June 1982. E. Deason. Draft Report. Coastal Resources Center. 49 pp. Discusses the effects of pollution on the uses of the waters of Providence Harbor and Upper Narragansett Bay.

A SUMMARY OF THE EPA PROPOSED RULES ON WATER QUALITY PLANNING AND MANAGEMENT AND WATER QUALITY STANDARDS. January 1983. Donald D. Robadue, Jr. and Ellen Suchow Foreman. Coastal Resources Center. 5 pp. Discusses the new EPA framework for water pollution abatement.

NOAA COASTAL SERVICES CTR LIBRARY
3 6668 14110536 3